

# LAND WEST OF WARRENBY, TEESWORKS, REDCAR

Contaminated Land Generic Quantitative Risk Assessment, Data Gap Areas

South Tees Development Corporation

REPORT NO: 10035117-AUK-XX-XX-RP-ZZ-623-01-Data Gap Areas GQRA

FEBRUARY 2023

#### ADDITIONAL DATA GAP AREAS, TEESWORKS, REDCAR

Generic Quantitative Risk Assessment

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This report dated February 2023 has been prepared for South Tees Site Company (the "Client") in accordance with the terms and conditions of appointment dated 20 April 2020 (the "Appointment") between the Client and **Arcadis (UK) Limited** ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party.

|                                 | Arcadis Consulting (UK) Limited (Arcadis) was commissioned by South Tees Development<br>Corporation to undertake a Generic Quantitative Risk Assessment (GQRA) for three<br>additional areas (the data gap areas (DGA)) within the plot of land known as Land West of<br>Warrenby ("the Site"), situated at the Teesworks, located within the industrial area generally<br>known as 'South Tees'.   |
|---------------------------------|---|
|                                 | <ul> <li>The assessment was required by Condition 4 of Planning Decision R/2021/1048/FFM to be implemented following demolition/clearance works in areas previously not accessible:</li> <li>The Blast Furnace Stockhouse</li> <li>The Blast Furnace Workshop/stores</li> <li>The residual former Redcar works</li> </ul>   |
| Background                      | Activities were historically undertaken at the Site to support the production of steel, albeit operations ceased in 2015. It is understood that the consortium Net Zero Teeside are the prospective tenant for the Site and intended to redevelop the Site into a carbon capture, utilisation and storage facility.   |
|                                 | A number of potentially contaminative historical land uses have occurred across the entire Site. These include, but are not limited to, the steel plant, pellet plant, sinter plant, sinter and pellet stocking areas, slag, tar and macadam works, above ground storage tanks, transformers, substations, iron ponds, disposal area, blast furnace stock house, workshop, stores, railway lines.   |
|                                 | Following the Detailed Quantitative Risk Assessment (DQRA) undertaken in 2022, data from the three additional data gap areas has been collected and a generic (G)QRA has been undertaken to confirm if the Remediation Strategy developed for the wider site requires updating for the data gap areas.  |
| Previous Environmental<br>Works | A number of phases of intrusive investigation have been undertaken which included portions of the Site with the primary investigations undertaken in 2004 and 2017 / 2018 and 2021 / 2022. The bulk of the 2021 / 2022 investigations were commissioned independently by the prospective tenant and was focused solely on the Site and land to the north.   |
| WORKS                           | Works undertaken have comprised desk study, trial pitting, advancement of boreholes, collection of soil and groundwater samples, geotechnical testing, environmental testing of soil, soil leachate and groundwater, geophysical investigation, hydrogeological investigation and quantitative risk assessment.   |
|                                 | The objective of this GQRA was to assess the potential risks to the identified receptors associated with contaminants of concern (CoC) measured in the subsurface and to determine if the CoCs beneath these additional areas are in line with the current site-wide conceptual site model (CSM). The specific objectives of this GQRA comprised:   |
| Scope and Objectives            | To further characterise pollutant linkages at the data gap areas using site-specific information.   |
|                                 | • To evaluate the significance of the identified impacts across the data gap areas within the existing legislative framework.   |
|                                 | Geology   |
| Site Setting                    | Made Ground up to 7.75m bgl (metres below ground level) is present in all three areas, comprising mainly slag dominated material (granular in nature) or granular Made Ground. Made Ground is underlain by superficial deposits of Tidal Flat Deposits (typically comprising silty gravelly sands), beneath which is Glacial Till (sandy gravelly clay). Beneath the superficial deposits is bedrock of the Redcar Mudstone Formation and the Mercia Mudstone |

Group (within the area of the former Redcar works). Blown Sands are indicated as being present across the wider site.

#### Hydrogeology

|           | Though only one monitoring well is present across all three areas (with groundwater in this well resting between 4.9 to 6.1m bgl), groundwater across the wider site is typically resting within the Made Ground. Groundwater in the Made Ground is likely to be in hydraulic continuity with groundwater in the underlying moderately permeable Tidal Flat Deposits and flowing in a northerly direction towards the North Sea. The more cohesive superficial deposits were considered to potentially act as an aquitard between the overlying granular superficial deposits and bedrock. Groundwater within the low permeability Redcar Mudstone Formation was indicated to be flowing towards the north / northeast. |
|-----------|---|
|           | The Tidal Flat Deposits are designated as Secondary A Aquifers, while the Glacial Till is<br>Secondary Undifferentiated and Glaciolacustrine Deposits are as Unproductive Strata. The<br>Redcar Mudstone Formation is designated as a Secondary Undifferentiated Aquifer while<br>the Penarth Group and Mercia Mudstone Group (in the northwestern tip of the Site) are<br>designated as Secondary B Aquifers. The Site is not located within a Source Protection<br>Zone (SPZ).  |
|           | Hydrology   |
|           | The nearest surface water feature is a pond, which is located approximately 20m to the north of the Site, albeit this is unlikely to be in hydraulic continuity with groundwater beneath the Site. The North Sea is located approximately 450m to the north, with the land immediately to the north designated a Ramsar site, Site of Special Scientific Interest (SSSI) and a Special Protection Area (SPA).   |
| Sources   | Potential sources of contamination exist on-Site, associated with the Made Ground and historical use of the site. Previous review of the contaminant distribution across the entire site identified a single primary source comprising <b>Made Ground</b> . Made Ground (including slag) was considered to represent a single diffuse soil source across the entirety of the Site footprint. It is the purpose of this GQRA to determine if this conclusion holds true within the three additional data gap areas.  |
|           | Diffuse groundwater contaminants found throughout the Site associated with Made Ground included metals, hydrocarbons including PAH and TPH, inorganics including cyanide, thiocyanate, ammoniacal nitrogen and sulphate.  |
|           | The following fate and transport pathways are potentially active:   |
| Pathways  | <ul> <li>Lateral migration of potentially impacted groundwater towards the identified water resource receptors.</li> <li>Dilution in an overlying air space.</li> <li>Dermal contact with soils</li> <li>Soil and dust ingestion and inhalation</li> </ul>  |
|           | The primary water resource receptor associated with the DGA and the wider site was considered to be the North Sea, which is additionally noted to be designated as a Ramsar site, SPA and a SSSI.   |
| Receptors | Groundwater associated with the designated aquifers underlying the DGA and the wider site<br>(primarily the Tidal Flat Deposits and Blown Sands) were also considered a potential<br>receptor, albeit it is considered likely to be of low resource potential based on the industrial<br>history of the Site and its surroundings, the brackish nature of groundwater identified in the<br>north of the Site, the absence of potable groundwater abstractions in the vicinity of the Site   |

and that it would be unlikely that future potable abstraction would be viable.

| Executive Summary                       |   |
|---|---|
|   | A GQRA was undertaken to determine if the site-wide CSM still stands given the additional data collected from the DGA.  |
| Generic Quantitative Risk<br>Assessment | The GQRA found a number of exceedances of both the human health and water resources Generic Assessment Criteria (GAC) in soil, soil leachate and groundwater.   |
|   | The CoC identified beneath the DGA were in type and magnitude broadly in line with CoCs identified across the wider site, with similar and often lower concentrations.  |
|   | Based on the findings of the assessment undertaken, the CSM established for the wider site is considered valid when the additional DGA data is included.  |
|   | The CoC measured do not imply any significant separate sources are present below any of the additional areas, and that Made Ground is likely to be the single diffuse soil source across the entire site.   |
| Conclusions                             | To address the identified active Human Health pollutant linkages at the DGA it is considered appropriate to apply the Remediation Strategy developed for the wider site which does not need to be updated to account for the additional data.   |
|   | The additional data from the DGA is not considered to change of outcome of the DQRA that remediation to protect Controlled Waters is not required, and therefore the Remediation Strategy developed for the wider site does not need to be updated to account for controlled waters or the additional data. |

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## Introduction

Arcadis (UK) Limited (Arcadis) was commissioned by South Tees Development Corporation (STDC) to undertake a Generic Quantitative Risk Assessment (GQRA) of Data Gap Areas ("the DGA") within the development plot known as Land west of Warrenby, Teesside (the "Site"). The Site is a land parcel situated within the wider Teesworks area located across the Redcar, Lackenby, Grangetown and South Bank conurbations of the Borough of Redcar & Cleveland, set in the industrial area generally known as 'South Tees'. Activities historically undertaken on-Site included the production of steel, alongside ancillary activities associated with steelworks.

Under the instruction of STDC the Phase 1 Contaminated Land Desk Study has been documented as technically adequate under the National Quality Mark Scheme (NQMS) to provide visible identification that the Remediation Strategy has been checked for quality by a Suitably Qualified and experienced Person (SQP). In this instance the SQP is Ian Evans. The NQMS Declaration Reference is 0822-H0102, a copy of the declaration is contained as Appendix A.

The site is under consideration as a potential location for the Teesside Net Zero carbon capture and storage facility, this facility is to be constructed by a third party under a Development Consent Order (DCO). Although some documentation pertinent to the DCO has been used to produce this report the two projects are not formerly linked and should be assessed separately and in isolation within their respective planning frameworks.

The work was carried out in accordance with the proposal "Teesworks, Net Zero Teeside Plot – Planning and design technical Support" dated 20th October 2020. All works have been carried out in reference to English legislation and regulatory guidance for the assessment of land contamination.

A Site location plan is presented as Figure 1, while the current location of the DGA within the current Site layout showing presented on Figure 2. The proposed layout, as presented by the prospective tenant / STDC, is presented as Figure 3 (Figures in Appendix B).

### 1.1 South Tees Regeneration Masterplan

The South Tees Regeneration Masterplan has been developed detailing the industrial-led regeneration of the former Redcar Teesworks site into a world class employment-generating zone and economic growth enabler for the Tees Valley. The Masterplan has identified the Site as being located within the North Industrial Zone. The Site is a priority development area.

### **1.2 Regulatory Context**

Outline planning for remediation of the site has been granted under Planning Decision R/2021/1048/FFM. This document is intended to support the discharge of Planning Condition 4 associated with remediation of the DGA at the plot, as defined under Outline Planning Approval. The planning redline is shown on drawing TSWK-STDC-NZT-ZZ-DR-C-0005 Net Zero Teesside – Remediation Zones – Rev D, contained within Appendix C alongside the Decision Notice detailing Condition 4, redlines on all other drawings should be considered indicative.

Planning guidance relating to the development of land potentially affected by contamination is detailed in the National Planning Policy Framework (NPPF), updated July 2021 and constitutes guidance for Local Planning Authorities (LPA). In this case the LPA is Redcar and Cleveland Borough Council (RCBC). RCBC within their planning portal/guidance strongly recommend Developers to use the The Yorkshire and Lincolnshire Pollution Advisory Group (YALPAG) guidance documents which they have adopted, to prevent any delays (Contaminated land | Redcar and Cleveland (redcar-cleveland.gov.uk)). As such the report has been documented as technically adequate under the NQMS.

The NPPF sets out the Government's planning policies for England and how these should be applied. Under the NPPF the planning process aims to ensure that land is suitable for its proposed future use, in particular:

'Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development.'

The NPPF also states that:

- Strategic policies should set out a clear strategy for accommodating objectively assessed needs, in a way that makes as much use as possible of previously-developed or 'brownfield' land.
- Give substantial weight to the value of using suitable brownfield land within settlements for homes and other identified needs, and support appropriate opportunities to remediate despoiled, degraded, derelict, contaminated or unstable land.

Therefore, planning policies and decision should ensure that:

- A site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation).
- After remediation, as a minimum, land should be capable of not being determined as contaminated land under Part IIA of the Environmental Protection Act 1990.
- Adequate site investigation information, prepared by a competent person, is available to inform these assessments.
- The planning system should contribute to and enhance the natural and local environment by:
- preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability.
- Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

The statutory definition of contaminated land is given under Part 2A of the Environmental Protection Act (EPA) 1990 (Part 2A). This does not include land that is already regulated through other means, such as Waste Management Legislation or the Environmental Permitting Regulations 2010.

### 1.3 Background

Early historical maps indicate that the Site comprised tidal mudflats and sand, with reclamation activities occurring from around the 1930s to 1970s to facilitate the construction of Site features. Reclamation is thought to have included tipping of slag and the placement of hydraulic fill dredged from the River Tees. The Site was operated until 2015 as a steel works, which included ancillary activities and plants over the course of its operation, including pellet production, sinter and pellet stocking areas, sinter plant and slag, tar and macadam plant.

A number of geo-environmental investigations were undertaken across the Site and wider area to characterise the subsurface (see Section 1.4 for further details on related reports). The investigation phases included trial pitting, the advancement of boreholes, installation of monitoring wells, geo-environmental analytical testing (including soils, soil leachate and groundwater) and collection of parameters to allow the assessment of hydrogeological conditions beneath the Site. Following the investigation phases a Remediation Strategy was developed for the Site based on the output of both GQRA and Detailed Quantitative Risk Assessment (DQRA). These documents have been accepted under Planning Decision Planning Decision R/2021/1048/FFM for the remediation of the Site.

However, it was recognised at the time of the grant of Planning that insufficient information was available to undertake an appropriate GQRA/DQRA and define a Remediation Strategy for three areas of the site (the DGA)

due to the presence of structures undergoing demolition which precluded access for ground investigation, namely:

- The Blast Furnace Stockhouse
- The Blast Furnace Workshop and Stores Area
- The residual former Redcar works

Following completion of demolition activities additional ground investigation has now been completed in the DGA. This GQRA report reviews the additional information for the DGA in the context of the current site-wide Conceptual Site Model (CSM) to identify if changes to the Remedial Strategy adopted for the wider Site are required for the DGA or if the current strategy can be adopted for these additional areas.

### **1.4 Previous Reports**

Arcadis have prepared or overseen the preparation of following reports for or to include the Site:

- Phase 1 Environmental Contaminated Land Desk Study, Land west of Warrenby, Teesworks, 10035117-AUK-XX-XX-RP-ZZ-0520-04-Land West of Warrenby Redcar Preliminary Risk Assessment, prepared by Arcadis and dated August 2022 [Arcadis 2022a].
- The Former SSI Steelworks, Redcar: Priority Areas within SSI Landholdings Contract 1 and 2A: Site Condition Report, Redcar Steelworks-AUK-XX-XX-RP-GE-0001-02-SSI1\_SSI2A\_GI\_SCR, prepared by Arcadis and dated August 2018 [Arcadis 2018a], based on factual data within:
  - 4153 & 4154 Area A Former Steelworks Redcar Contract 1 & 2 (Area A) (Final report), prepared by Allied Exploration and Geotechnics Limited (AEG) for South Tees Site Company Ltd, dated June 2018 [AEG 2018].
- Contaminated Land Generic Quantitative Risk Assessment and Detailed Quantitative Risk Assessment, Land West of Warrenby, Teesworks, Redcar, 10035117-AUK-XX-XX-RP-ZZ-0428-04-LWoW\_DQRA, prepared by Arcadis and dated August 2022 [Arcadis 2022b]. Supersedes:
  - The Former SSI Steelworks, Redcar: Priority Areas within SSI Landholdings Contract 1 and 2A: Environmental Risk Assessment, Redcar Steelworks-AUK-XX-RP-GE-0001-P1-SSI1\_SSI2A\_GI\_ERA, prepared by Arcadis and dated August 2018 [Arcadis 2018b].
- The Former SSI Steelworks, Redcar: Priority Areas within SSI Landholdings Contract 1 and 2A: Geotechnical Risk Assessment Report, Redcar Steelworks-AUK-UK-XX-XX-RP-GE-0001-P1-SSI1\_SSI2A\_GI\_GRA, prepared by Arcadis and dated November 2018 [Arcadis 2018c].
- Enabling Earthworks and Remediation Strategy Report, Land West of Warrenby, Teesworks, Redcar, 10035117-AUK-XX-XX-RP-ZZ-0417-06-Rem\_Strat\_LWoW, prepared by Arcadis and dated August 2022 [Arcadis 2022c]. Supersedes:
  - The Former SSI Steelworks, Redcar: Priority Areas within SSI Landholdings Contract 1 and 2A: Ground Remediation Options Appraisal Report, Redcar Steelworks-AUK UK-XX-XX-RP-GE-0001-01-SSI1\_SSI2A\_GI\_ROA, prepared by Arcadis and dated December 2018 [Arcadis 2018d].
- Earthworks Specification, Land West of Warrenby, Teesworks, Redcar, 10035117-AUK-XX-XX-RP-ZZ-0420-05-LWoW\_Earthworks, prepared by Arcadis and dated May 2022 [Arcadis 2022d].

In addition STDC have provided the following reports for or pertinent to the Site:

- Soil and Groundwater Baseline Characterisation Study, Teesside Works, prepared by Enviros for Corus UK Ltd [Enviros 2004], comprising:
  - Volume 1 Factual Report, Ref. Rlp250604corusteessidefactual.Doc dated 25th June 2004 and marked Final;
  - Volume 2 Interpretive Report Ref. Mwicorusdraftinterpretivemmdv#2.Doc dated 25th June 2004 and marked Final; and,

- Volume 3 Summary Report dated June 2004
- SSI1 Redcar Works Phase 1 Geo-Environmental Desk Study, 678079\_SSI1\_001 prepared by CH2M, dated August 2017 [CH2M 2017a]
- SSI2 Redcar Works Phase 1 Geo-Environmental Desk Study, 678079\_SSI2\_001 prepared by CH2M, dated August 2017 [CH2M 2017b]
- *Factual Report Initial Trial Pitting* SSI Redcar SSI1, prepared by CH2M and dated November 2017 [CH2M 2017c];
- *Factual Report Initial Trial Pitting* SSI Redcar SSI2, prepared by CH2M and dated November 2017 [CH2M 2017d];
- Former Steelworks Land, South Tees Outline Remedial Strategy, Prepared for South Tees Development Corporation by Wood, ref 41825-wood-XX-XX-RP-OC-0001\_S0\_P01 dated 25th June 2019 [Wood 2019].

In addition, Arcadis have been provided with the following reports by BP.

- Net Zero Teesside Environmental Statement Volume III Appendices, EN010103-001064-NZT DCO 6.4.11 ES Vol III Appendix 9C WFD Assessment, Prepared by AECOM for BP [AECOM 2021a].
- Preliminary Onshore Ground Investigation for Net Zero Teesside (NZT) South Tees Development Corporation (STDC) 'Main Site' and Onshore CO2 Export Pipeline Corridor Final Factual Report, prepared by AEG for AECOM and dated January 2022 [AEG 2022].
- Net Zero Teesside Long Term Groundwater Monitoring First Interim Report, prepared by AECOM for BP and dated July 2022 [AECOM 2022]
- Ground Investigation Factual Report, Net Zero Teesside Onshore Ground Investigation Front End Engineering Design (FEED), prepared for BP by AECOM and dated 19<sup>th</sup> January 2023 [AECOM 2023].

This GQRA should be read in conjunction with the aforementioned reports, in particular, the DQRA, which form the basis for the conceptual understanding of the Site.

### **1.5 Objectives**

The objective of this GQRA was (for the DGA only) to assess the potential risks to the identified receptors associated with Contaminants of Concern (CoC) measured in the subsurface and to determine if the CoCs beneath these additional areas are in line with the current site-wide conceptual site model (CSM). The specific objectives of this GQRA comprised:

- To further characterise pollutant linkages within the DGA using site-specific information.
- To evaluate the significance of the identified impacts across the DGA within the existing legislative framework.

### 1.6 Scope of Works

The scope of works was developed with reference to the Environment Agency's (EA) Land Contamination Risk Management (LCRM) guidance, published October 2020 and last updated in April 2021.

### 1.7 Reliability of Information / Limitations

The scenarios overleaf are not considered in the derivation of site-specific assessment criteria (SSAC):

- Risks to Construction Workers any redevelopment and construction work should be conducted in full recognition of HS(G)66 (no longer current but has not been updated and is cited in The Building Regulations, 2010) and with reference to CIRIA Report 132<sup>1</sup>; and,
- Nuisance health effects the Statutory Nuisance Act considers olfactory impacts from odours and allows comparison of enclosed space air concentrations with odour threshold concentrations.

Arcadis' liability, pursuant to the terms of the appointment of Arcadis by STDC, is strictly limited to the work undertaken and the matters contained and specifically referred to in this report.

A copy of Arcadis' Study Limitations is presented in Appendix D.

### 1.8 Reliance

It is understood that the current report has been prepared for the use of STDC in their planning process. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.

<sup>&</sup>lt;sup>1</sup> Construction Industry Research and Information Association, 1996. CIRIA report 132 – A Guide for Safe Working on Contaminated Sites

# **2** Environmental Investigations and Site Setting

### 2.1 Ground Investigation Works

A number of investigations have been undertaken for the overall Site, including desk study, trial pitting, advancement of boreholes, collection of soil and groundwater samples, geotechnical testing, environmental testing of soil, soil leachate and groundwater, geophysical investigation, hydrogeological investigation (comprising collection of data pertaining to tidal conditions, hydraulic continuity of underlying geological units and aquifer permeability testing), alongside quantitative risk assessment.

The following additional works have been completed as part of the assessment of the DGA and are considered sufficient to robustly assess the sub surface conditions within each area:

- 10 trial pits
- 11 BH
- Collection of 89 soil, 35 leachate and 5 groundwater samples

The site data referenced in this report is summarised below and key information has also been compiled in Appendix E, which includes trial pit and borehole logs, soil and groundwater analysis and monitoring summary.

The information gathered from these investigations has been used to develop the environmental Site setting, as reported within. A plan showing the intrusive investigation and monitoring well locations within the data gap areas is presented as Figure 4.

### 2.2 Description of Data Gap Areas

The wider Land West of Warrenby (LWoW) Site including the DGA comprises reclaimed land, with reclamation activities commencing in the 19<sup>th</sup> century, albeit the majority of reclamation in the north of the Site where the DGA are located occurred in the 1930s. The reclamation is thought to have included end tipping of slag from railway sidings and the placement of hydraulic fill dredged from the River Tees. The DGA are all located in the north western quarter of the site adjacent to the western boundary, at the time of writing all major structures have all been demolished to ground level 7-8m AOD (above ordnance datum). Prior to demolition the DGA comprised:

- Blast Furnace Stockhouse Comprised a series of large above ground bunkers containing raw
  materials (including coal and ore) for the Blast Furnace, linked to the surrounding complex by overhead
  conveyors. A substation was associated with the facility. Located immediately south of the former
  Redcar Workshops and Stores and immediately north of Red Main site road and a utility corridor which
  includes the coke over gas main and heavy fuel oil lines. Underground diesel storage tanks are located
  on the northern border.
- Redcar Workshops and Stores A series of offices, stores and workshops for maintenance of equipment and infrastructure.
- Residual Former Redcar Works Located in the northwest of the site adjacent to the Blast Furnace ancillary buildings. This is an area of the former Redcar Works demolished in the 1970 to clear the site for the construction of the most recent plant.

### 2.3 Geology

The focus of this section is on geology as identified beneath the DGA, although additionally considers geology within the wider area, where pertinent.

#### 2.3.1 Published Geology - Site wide

Review of the British Geological Survey (BGS) online map viewer and BGS map for the area (Guisborough, 1:50,000 Solid and Drift Edition, Sheet 34) indicates that the Site is directly underlain by worked ground. Worked ground is indicated to be underlain by superficial deposits comprising primarily Tidal Flat Deposits of sand and silt, albeit within the northeastern portion of the Site Blown Sand are recorded. Blown Sand, and subsequently Beach and Tidal Flat Deposits are noted to the north of the Site, between the Site and the coast, with Glaciolacustrine Deposits and Glacial Till noted in the general area, and potentially present at depth beneath the Tidal Flat Deposits and Blown Sand.

Bedrock beneath the majority of the entire Site comprises the Redcar Mudstone Formation, up to 250m thick. The Redcar Mudstone Formation is described as mudstones and siltstones with subordinate thin beds of shelly limestone in the lower part and argillaceous limestone concretions throughout. The Penarth Group outcrops in the northwestern most portion of the Site and is described as mudstones with subordinate limestones and sandstones (from 0 to >12m thickness). The Mercia Mudstone Group, described as mudstones and subordinate siltstones (greater than 1,350m thick) is indicated to be present beneath the northwestern most tip of the Site.

#### 2.3.2 On Site: Site Specific Geology

The information presented in this section is based on a review of readily available investigation data collected during ground investigation by AECOM (AECOM 2023).

Two main types of Made Ground have been noted across the Site:

- Slag-dominant material (SMG >50% slag): Generally ranging from gravel to boulder size fragments
  and intermixed with other types of manmade fragments including brick, concrete, coal, sandstone, and
  clinker. The slag material generally ranged from light grey to dark grey/black in colour, but a wide range
  of other colours were also noted including grey brown, red brown and orange brown. Discolouration of
  the slag surface was also noted with white crystallisation/discolouration often noted on the outer
  surface.
- Granular Made Ground (GMG <50% slag): Generally described as a sandy gravel with varying amounts of clay, cobbles and gravel. Gravel and cobbles include brick, concrete and other demolition materials, slag was not the dominant constituent although often still present within the soil matrix.

In addition to the above, cohesive Made Ground, Hydraulic Fill material, and sinter have been encountered beneath the wider Site, albeit to a far lesser extent. A summary of the geology identified in the DGA is provided in the table below.

| Unit                | Description   | Maximum Depth      |
|---------------------|---|--------------------|
| Made ground:<br>SMG | Silty slightly sandy subangular to<br>angular fine to coarse slag<br>GRAVEL with medium cobble<br>content of slag cobble.   |                    |
| GMG                 | Silty very gravelly fine to coarse<br>SAND with medium cobble<br>content. Gravel is subangular to<br>angular slag, brick, clinker, and<br>metal. Cobbles are slag and<br>brick. | 5.20 bgl (F-BH125) |

#### 2.3.2.1 Blast Furnace Stockhouse

| Unit                                       | Description   | Maximum Depth        |
|--|---|----------------------|
|  | Slightly gravelly fine to medium<br>SAND. Gravel is slag and flint<br>(potentially reworked ground).<br>AND   |                      |
| <b>Superficial:</b><br>Tidal Flat Deposits | Medium dense slightly to very<br>gravelly fine to coarse organic<br>SAND with shell fragments.<br>Gravel is subrounded to angular<br>fine to coarse chert, limestone,<br>sandstone, and mudstone.<br>AND<br>Soft silty gravelly sandy CLAY. | 14.70m bgl (F-BH128) |
| Devensian Till                             | Stiff to very stiff sandy gravelly<br>silty CLAY. Gravel is subangular<br>to subrounded fine to coarse<br>limestone, mudstone, and<br>sandstone.  | 19.50m bgl (F-BH119) |
| Bedrock:<br>Redcar Mudstone Formation      | Extremely weak to locally very weak fractured thinly to thickly laminated MUDSTONE.   | 34.00m bgl (F-BH124) |

#### 2.3.2.2 Workshop/Stores

| Unit   | Description  | Maximum Depth        |  |
|--|--|----------------------|--|
| Made ground:<br>SMG                                | Sandy angular to subrounded fine to coarse slag GRAVEL with low to medium cobble content of slag cobbles.                              | 5.30m bgl (F-BH114)  |  |
| GMG  | Very gravelly fine to coarse SAND with low to high cobble content.<br>Gravel is brick and slag with metal fragments. Cobbles are slag. |                      |  |
| <b>Superficial:</b><br>Tidal Flat<br>Deposits      | Very loose to locally dense gravelly fine to coarse organic SAND<br>with shell fragments.<br>Soft silty sandy very organic CLAY.       | 15.50m bgl (F-BH116) |  |
| Devensian Till                                     | Firm gravelly sandy CLAY   | 21.2m bgl (F-BH115)  |  |
| <b>Bedrock:</b><br>Redcar<br>Mudstone<br>Formation | Weak friable thinly laminated MUDSTONE   | 31.50m bgl (F-BH115) |  |

#### 2.3.2.3 Residual Former Redcar Works

| Unit                      | Description   | Maximum Depth         |  |
|---------------------------|---|-----------------------|--|
| Made ground:<br>SMG       | Subrounded to subangular medium to coarse slag GRAVEL with high cobble content of slag cobbles.   |                       |  |
|                           | Slightly gravelly fine to coarse SAND. Gravel is subrounded to angular slag.  | 7.75m bgl (F-BH102)   |  |
| GMG                       | Silty gravelly fine to coarse SAND with fragments of plastic, metal, and textiles. Gravel is subangular to angular fine to coarse chert, concrete, brick and sandstone. |                       |  |
|                           | Dense fine to coarse SAND with shell fragments  |                       |  |
| Superficial:              | AND   | 16.00m hel (E. BU102) |  |
| Tidal Flat Deposits       | Dense to very dense slightly gravelly fine to coarse SAND<br>with shell and coal fragments. Gravel is rounded to<br>subrounded fine to medium mudstone and sandstone.   | 16.00m bgl (F-BH102)  |  |
| Devensian Till            | Stiff silty slightly sandy slightly gravelly CLAY. Gravel is<br>rounded to angular fine to medium coal, mudstone, and<br>sandstone.                                     | 23.20m bgl (F-BH102)  |  |
| Bedrock:                  |   |                       |  |
| Redcar Mudstone Formation | Extremely weak fractured thinly laminated grey<br>MUDSTONE  | 32.00m bgl (F-BH104)  |  |
| Mercia Mudstone Group     | Extremely weak and fractured thinly laminated reddish brown MUDSTONE  | 39.00m bgl (F-BH102)  |  |

### 2.4 Hydrogeology

The Site was reclaimed from the Tees Estuary on low lying areas immediately above high water by the placement of biproducts from the steel making process. As discussed, a significant thickness of Made Ground has been identified across the DAG and the wider Site, in addition to off-Site between the Site and coast. The following describes the hydrogeological regime beneath the additional data gap areas.

#### 2.4.1 Groundwater Elevation

Only 1no. monitoring well is located within the additional areas, F-BH102.

Groundwater in F-BH102 was found to be resting within the slag made ground (SMG) at a depth of between 6.32m bgl to 8.775m bgl (0.313m AOD to 3.018m AOD) (Appendix F).

No further location specific hydrogeological information is available. In line with the remediation strategy, monthly monitoring will be conducted throughout the remediation earthworks on the Site. The September to December 2022 monthly monitoring data aligns broadly with what can be seen across the wider site (Arcadis 2022b), the general site-wide conditions are as follows:

The vertical hydrogeological regime beneath the Site is complex, with evidence for upward head between units in some instances, and downward head on other instances, even within the same dual well installation. Groundwater within the Made Ground is likely to be in continuity with groundwater within the underlying Tidal Flat Deposits based on the small head difference typically observed. It is considered that the cohesive superficial deposits (primarily the Glacial Till, which was identified in all 38 wells monitored across the wider site), may be in part acting as an aquitard in relation to the overlying superficial and underlying bedrock aquifers.

Review of groundwater elevation data collected from the Made Ground indicates a northerly/north-easterly flow direction towards the coast. However, a north to south flow direction was inferred off-Site on the basis of the findings of groundwater elevations in LF\BH02, which were consistently higher than the closest on-Site monitoring well monitored.

Review of the groundwater elevation data collected from the Redcar Mudstone Formation aquifer indicates a flow direction towards the north / northeast.

Tidal monitoring across the Site indicated no tidal influence is present. The absence of any notable cyclical tidal variation is likely due to the presence of cohesive deposits and provides evidence that the horizontal migration pathway between the Site and the North Sea may be limited by their presence. Groundwater underlying the Site may be brackish, which may be either attributable to saline intrusion from the North Sea, or due to the fact that the land is reclaimed from the sea and therefore likely to have residual salts within the underlying ground.

#### 2.4.2 Aquifer Classification

The Tidal Flat Deposits beneath the Site are designated as a Secondary A Aquifer by the EA, although within the local area are noted to be designated as a Secondary Undifferentiated Aquifer. The Glacial Till is designated as a Secondary Undifferentiated Aquifer, while the underlying Redcar Mudstone Formation is also designated as a Secondary Undifferentiated Aquifer.

#### 2.4.3 Source Protection Zones

The Site is not located within a groundwater Source Protection Zone (SPZ).

### 2.5 Hydrology

An ornamental pond is located approximately 120m west of the Redcar Workshops and Stores (beyond the Site boundary), this is understood to be lined and is not considered a receptor.

The North Sea is present approximately 450m to the north of the wider Site boundary, considering the mean high-water mark as the boundary. The River Tees which flows into the North Sea at the Tees Estuary, is located approximately 1500m to the west of the Site at its closest point. Another river, the River Fleet, is located approximately 150m to the southeast of the Site (and 740m from the DGA) at its nearest point.

In addition, a number of ponds (closest within 20m of the Site) were formerly present between the Site and coastline within an area of off-Site Made Ground associated with the South Gare and Coatham Dunes. It is thought that these ponds may have been fed by surface runoff from operation of the Redcar Blast Furnace (to the west of the Site), and have reduced significantly in size since termination of operations at the steelworks. During a Site walkover undertaken by an Arcadis representative on 8 November 2021, only a single pond was observed to be present (located 20m north of the Site boundary and named 'Pond 14'). Pond 14 has been found unlikely to be in continuity with groundwater beneath the Site, and as such, is not considered as a potential receptor in relation to the Site, further discussion can be found in Arcadis (2022b). On this basis, the primary surface water feature in relation to the Site is the North Sea (located approximately 450m to the north).

### 2.6 Ecologically Protected Sites

Review of DEFRA's magic map website (accessed 23 November 2021) indicates that the land immediately to the north of the Site has ecologically protected status, as detailed in Arcadis (2022b) and summarised below.

- Site of Special Scientific Interest (SSSI) associated with the Teesmouth and Cleveland Coast;
- Special Protection Area (SPA) associated with the Teesmouth and Cleveland Coast; and
- Ramsar Site associated with the Teesmouth and Cleveland Coast.

### 2.7 Soil and Groundwater Quality

The collection of soil and groundwater samples for laboratory analysis, which included leachate testing, has been undertaken at the Site to assess the quality of the soil, soil leachate and groundwater. Where noted during the site works, visual and olfactory evidence of impacts were recorded. The former uses of the DGA and as such potential contaminants of concern associated with the DGA, informed the laboratory analysis undertaken on collected samples. No evidence of non-aqueous phase liquids (NAPL) or tar was observed during the investigation. Observations made can be found on the borehole and trial pit logs in Appendix E Pertinent observations are summarised below:

| Location        | Geological Unit | Description                         |  |  |  |
|-----------------|-----------------|-------------------------------------|--|--|--|
| Workshop/Stores | '               |                                     |  |  |  |
| F-BH116         | SMG             | Elevated PID readings up to 26.6ppm |  |  |  |
|                 | Blast Furnad    | ce Stockhouse                       |  |  |  |
| F-BH119         | GMG             | Elevated PID readings up 9.4ppm     |  |  |  |
| F-BH124         | GMG             | Sulphurous odour @0-0.5m bgl        |  |  |  |

| Location                     | Geological Unit | Description  |  |  |  |
|------------------------------|-----------------|--|--|--|--|
| Workshop/Stores              |                 |  |  |  |  |
| F-BH125                      | GMG             | Elevated PID readings up to 15.8ppm  |  |  |  |
| F-BH128                      | TFD             | Elevated PID readings up to 10.4ppm  |  |  |  |
| Residual Former Redcar Works |                 |  |  |  |  |
| F-BH102                      | SMG             | Sulphur and iron-stained cobbles with sulphurous odour<br>@ 1.00-3.00m bgl<br>Sulphurous odour @4.20-4.50m bgl |  |  |  |
| F-BH104                      | SMG             | Elevated PID readings up to 65.4ppm  |  |  |  |
| F-TP121                      | GMG             | Slightly sulphurous odour @1.50-2.50m bgl  |  |  |  |

#### 2.7.1 Laboratory Deviations

The reported laboratory deviations are presented in Appendix G. The majority of deviations relate to holding times being exceeded. Where holding times are recorded as being exceeded by 365 days, this is due to the sample date not being supplied to the laboratory. The reported laboratory deviations have been reviewed and are not considered to have a material impact on the quality of data reported.

# **3 Conceptual Site Model**

### 3.1 Sources

A number of potential sources associated with the historical use of the Site have been identified both on-Site and off-Site in the Phase 1 Environmental Assessment (Arcadis 2022a). In brief, these include Made Ground both on and off-site which often comprises slag, on and off-site historical industrial land uses associated with iron and steel making and railways, including the workshops and stores which have been investigated as part of the DGAs. Analytical testing of soils, soil leachate and groundwater has incorporated the following CoC based on the identified sources: total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAH), volatile organic compounds (VOC), semi volatile organic compounds (SVOC), metals and inorganics, polychlorinated biphenyls (PCBs) and asbestos (soil only).

### 3.2 Receptors

#### 3.2.1 Human Health

On the basis of the proposed redevelopment of the DGA along with the rest of the Site for commercial / industrial use, the primary human health receptors are considered to comprise future on-Site industrial workers. There are no neighbouring residents in the vicinity of the Site and it is considered unlikely that residential properties would be constructed hydraulically down-gradient of the Site within the ecologically protected area. As such, neighbouring residents have not been considered a receptor. Consideration of the risk to on-Site industrial workers is considered to provide protection to off-Site commercial/industrial workers, provided that any remedial measures, if undertaken, are based on source reduction or pathway management which also cuts the pathway for off-Site commercial/industrial workers.

#### 3.2.2 Controlled Waters

The primary water resource receptor is considered to be surface water associated with the North Sea, located approximately 450m to the north of the Site. It is noted that the North Sea also has ecologically protected status and is therefore also considered a receptor in relation to ecological receptors.

In addition to surface water, groundwater within the underlying superficial deposits (primarily Tidal Flat Deposits, and additionally the Blown Sands which are present immediately north of the Site and with the same designation) is also considered a potential receptor. Groundwater within bedrock beneath the Site is considered a potential receptor given their designations as a Secondary Undifferentiated Aquifer (Redcar Mudstone Formation) and Secondary B Aquifers (Penarth Group and Mercia Mudstone Formation), albeit the cohesive Glacial Till (and where present, Glaciolacustrine Deposits) are considered to offer a degree of protection to this aquifer.

### 3.3 Pathways

The following fate and transport pathways are potentially active:

- Lateral migration of potentially impacted groundwater towards the identified water resource receptors.
- Dilution in an overlying air space.
- Dermal contact with soils.
- Soil and dust ingestion and inhalation.

In addition to the above, the Phase 1 Environmental Assessment (Arcadis 2022a) identified the potential for shallow tunnels to be present and also the potential for relic pile foundations. These features, if present, may represent preferential pathways and may require further assessment.

### 3.4 Potentially Active Pollutant Linkages

As such, the following linkages have been identified which require further consideration:

- Dermal contact, soil and dust ingestion and inhalation of dusts (indoor and outdoor) in relation to future on-Site industrial workers derived from shallow on-Site Made Ground;
- Inhalation of contaminants in vapours in a future indoor or outdoor air space associated with an on-Site unsaturated soil or groundwater source in relation to future on-Site industrial workers;
- Lateral migration off contaminants in groundwater associated with potential off-Site sources (Made Ground and historical industrial land uses) on to Site and subsequent inhalation of vapours in an outdoor or indoor air space in relation to on-Site industrial workers;
- Leaching of contaminants from on-Site Made Ground into groundwater, and subsequent lateral migration towards the identified surface water resource receptors (e.g., North Sea);
- Leaching of contaminants from on-Site Made Ground into groundwater, and subsequent lateral migration towards the identified water resource receptors (Secondary Aquifers);
- Leaching of contaminants from on-Site Made Ground into groundwater, and subsequent lateral migration towards the identified ecologically protected receptors associated with the North Sea; and
- Lateral migration of contaminated groundwater associated with off-Site sources such as Made Ground across the wider Teesworks site, on to Site in relation to the identified water resource receptors.

In addition to the above, the following linkages are also noted to exist across the Site and are considered to apply to the DGA, but have not been assessed further in this report:

- The potential presence of permanent ground gas and human health or built receptors. No unacceptable risk
  to human health or built receptors from the accumulation of ground gas was identified based on the findings
  of Arcadis 2018b. However, as the ground investigation was not designed with a particular redevelopment
  scenario in mind, the gas data monitoring was limited and may not be representative of the entire extent of
  the Site under a particular redevelopment.
- Pipe permeation in relation to new water supply pipes, if installed within the Made Ground, primarily in relation to organic contaminants;

Arcadis understand from STDC that it is expected that any risks associated with the above linkages and any subsequent mitigation measures required (e.g. building controls) would be the responsibility of the developer. As such, these linkages have not been considered further.

A risk to construction workers may be present in relation to potential contaminants in the subsurface during the redevelopment phase. However, these risks can be mitigated through best practice and employment of suitable mitigation measures which would be considered standard practice in brownfield site redevelopment.

A preferential pathway could be created if piled foundations are included within the design which penetrate through the Glacial Till and Glaciolacustrine Deposits; a piling risk assessment may be required to inform pile design, this would be the responsibility of the developer.

# **4 Generic Quantitative Risk Assessment**

In order to assess the CoCs beneath the additional data gap areas a GQRA was undertaken. The GQRA comprised comparison of measured concentrations of contaminants of concern, in the various media tested, against Generic Assessment Criteria (GAC) for commercial / industrial end use. The GAC have been derived using conservative assumptions to enable potential pollutant pathways that do not pose unacceptable risks to be identified and discounted. Exceedance of a GAC does not imply that an unacceptable risk is necessarily present, rather that further assessment may be required to assess the potential risk. The GAC have not been developed to assess potential preferential pathways.

The GAC have been developed assuming that the Site will be redeveloped as a typical commercial/industrial development, represented by office buildings, hardstanding and some areas of soft landscaping. Given the planned industrial development, this conceptualisation is likely a conservative assumption.

### 4.1 Datasets included in the Comparison

The data included in the comparison comprised:

- Soil and soil leachate data collected by AEG on behalf of AECOM/BP during ground investigation works in 2022 (AEG 2022);
- Soil and soil leachate data collected by AECOM on behalf of BP during ground investigation works in 2022 (AECOM 2023);
- Groundwater data collected by AECOM on behalf of BP during ground investigation works in 2022 (AECOM 2022);
- Additional soil and soil leachate data collected by Arcadis during trial pit investigation works in 2022 (Appendix E); and
- Additional groundwater data collected by Arcadis during 2022 (Appendix E);

It is noted that a GQRA was undertaken previously by Arcadis (Arcadis 2018b superseded by 2022b) to assess the Site **and** wider area. This GQRA will focus on the data collected from the additional data gap areas only.

### 4.2 Human Health GQRA

4.2.1 Selection of Soil Generic Assessment Criteria

Potentially active pollutant linkages and CoC in relation to human health risks requiring further assessment have been identified as follows, based on the discussion in Section 3:

- A. Dust inhalation from Made Ground from Site (potential CoC include primarily asbestos and heavy metals)
- B. Vapour inhalation of indoor or outdoor air from volatile contaminants in soil (potential CoC include primarily VOCs and SVOCs)
- C. Vapour inhalation of indoor or outdoor air from contaminated groundwater (potential CoC include primarily VOCs and SVOCs)
- D. Direct contact and ingestion of contaminated soil (potential CoC include primarily heavy metals, organic/inorganic compounds)

The DGA are to be re-developed for commercial / industrial end use, and as such, on-Site industrial workers are the primary receptor of concern for any contamination risk. The risk would be influenced by the duration and

location of the staff work regimes. For the basis of this assessment, it is assumed that Site workers will be on-Site for a "standard" 8 hour working day.

Industry best-practice for commercial/industrial end-use is to develop GAC assuming a pre-1970s commercial property is present at the Site, with some open areas uncovered by hardstanding.

To assess the identified potential linkages GAC have been adopted based on the proposed industrial end use.:

The GAC comprise (in order of priority):

- Land Quality Management / Chartered Institute of Environmental Health (LQM / CIEH) Suitable for Use Levels (S4UL) (LQM / CIEH, 2015),
- DEFRA Category 4 Screening Levels (C4SL) (DEFRA, 2014),
- Arcadis derived generic assessment criteria, using CLEA v1.07, and adopting the model set up for the S4ULs,
- USEPA Regional Screening Levels (RSLs) (US EPA, November 2021)

Wood derived GAC using CLEA v1.07, which were presented in Wood 2019<sup>2</sup>, for benzo(a)pyrene and naphthalene. It is understood that these values were acceptable to the regulator for the wider area (which included the Site) and as such they have been retained here.

In the absence of suitable GAC, Arcadis derived site specific assessment criteria for free cyanide for the Prairie site <sup>3</sup> (part of the wider area). It is understood that these values were acceptable to the regulator for the Prairie site and as such they have been retained here as the underlying conceptual model used in their development is consistent with the conceptual site model for this Site.

Soil organic matter (SOM) for the Made Ground for the Site ranged from 0.1 to 14% (average of 1.5%) although the upper values are considered to be influenced by hydrocarbons in the sample. As such, the S4UL selected as GAC are those for a commercial end use assuming a SOM content of 1% (the lowest, and most conservative, value).

The selected human health GAC for soil and maximum recorded concentrations in soil in Made Ground, superficial deposits and bedrock for all contaminants are listed in Appendix H.

#### 4.2.2 Soil Screen

Contaminant concentrations in soil samples collected from the Site have been compared with the soil GAC in Appendix H. Contaminants which exceed the GAC are summarised below.

| Compound              | Sample  | Sample depth<br>(Unit screened) | GAC (mg/kg) | Exceedances (mg/kg) |
|-----------------------|---------|---------------------------------|-------------|---------------------|
| Lead                  | F-TP113 | 3.3m bgl (GMG)                  | 2,300       | 3,900               |
| Dibenz(a,h)anthracene | F-BH102 | 1.0m bgl (SMG)                  | 3.5         | 4.2                 |

The risks associated with lead and dibenzo(a,h)anthracene are driven by the direct contact pathways, i.e. assuming that the soils at these locations remain uncovered by hardstanding, buildings or another suitable cover

<sup>&</sup>lt;sup>2</sup> Former Steelworks Land, South Tees Outline Remedial Strategy, Prepared for South Tees Development Corporation by Wood, ref 41825-wood-XX-XX-RP-OC-0001\_S0\_P01 dated 25th June 2019

<sup>&</sup>lt;sup>3</sup> Grangetown Prairie Area, Former Steelworks, Redcar, Detailed Conceptual Site Model Review and Risk Assessment, prepared by Arcadis, report reference 10035117-AUK-XX-XX-RP-ZZ-0062-01-Prairie\_ESA and dated July 2020

system. The depth at which the lead and PAH exceedances were identified are such that direct contact exposure is unlikely. The Remediation Strategy agreed for the wider site area (Arcadis 2022c), includes capping incorporated into the development which would address the above exceedances by breaking the direct contact pathways (including dust).

#### 4.2.3 Compounds for which no GAC are readily available

In addition to the above, a number of compounds were detected for which no GAC criteria were readily available. These included a limited number of metals (aluminium, iron, manganese, magnesium and silicon), inorganics (sulphur species, total / complex cyanide and nitrate), asbestos and a limited number of VOC and SVOC (including 1,1-dichloropropene, 1,2,4-trimethylbenzene, n-butylbenzene, p-isopropyltoluene, 4-nitrophenol, 4-chlorophenyl phenyl ether and 2-methylnaphthalene). These are discussed further below.

#### Metals and Inorganics

The metals and inorganics detected are all elements present naturally in soil at relatively high concentrations (with the exception of total / complex cyanide), with some noted to be biologically required nutrients. They may be elevated above natural levels where slag and other steelmaking wastes are incorporated into soil due to the Site's former use, particularly manganese and iron. These substances are typically considered to be those with low known toxicity, and none of the compounds that have been reviewed are expected to pose a significant human health risk under an industrial redevelopment scenario. Other effects, such as phytotoxicity, are not assessed as the Made Ground is likely to be unsuitable as a growing medium and some form of capping is likely to be incorporated into the development if any areas remain uncovered by hardstanding or buildings.

The potential risks associated with total and complex cyanide were assessed based on the detections of free cyanide, which is of higher toxicity and of a similar composition, with none of the measured concentrations of free cyanide in soil in excess of the GAC.

#### Volatile Organic Compounds and Semi Volatile Organic Compounds

The VOC / SVOC 1,2,4-trimethylbenzene, n-butylbenzene, p-isopropyltoluene were typically measured in a limited number of samples and marginally above the laboratory method detection limit (MDL) (concentrations typically less than 0.03mg/kg). On this basis, the risk from these compounds is not considered significant. Similarly, the SVOC 4-chlorophenyl phenyl ether was detected in only 1 of 83 samples analysed, marginally above the MDL of 0.1mg/kg at a concentration of 0.2mg/kg, and therefore is not considered to represent a significant risk.

The SVOC 2-methylnaphthalene was detected in 10 of 83 samples analysed and was measured at a maximum concentration of 1.2mg/kg. The SVOC 2-methylnaphthalene is a type of PAH, with detections of this compound corresponding with samples in which the remaining PAH analysed were also measured. The remaining PAH are considered to represent suitable indicator compounds for the assessment of risk from 2-methylnaphthalene in soil.

The VOC 1,1-dichloropropene was detected in 17 of the 85 samples analysed, albeit the maximum measured concentration was the laboratory MDL of 0.01mg/kg. While a GAC was not readily available for the assessment of 1,1-dichloropropene, it is noted that the US EPA presents a value of 8.2mg/kg for 1,3-dichloropropene (used in pesticides), which is likely to behave in a similar way in the environment and be of similar toxicity. On the basis that the maximum measured concentrations of 1,1-dichloropropene were two orders of magnitude lower than this value, further consideration of the risk to human health from measured concentrations of 1,1dichloropropene are not considered warranted.

The SVOC 4-nitrophenol was detected in 3 of 83 samples analysed at a maximum concentration of 2mg/kg. Based on its chemical properties, 4-nitrophenol is unlikely to represent a risk via the vapour inhalation pathways. Two of the three samples in which 4-nitrophenol was detected were at depth, with concentrations of 4nitrophenol in shallower soil samples collected from the same locations below the laboratory MDL, indicating the direct contact pathways in these locations is unlikely to be significant. The third location in which 4-nitrophenol was detected was at a depth of 1 - 1.2m bgl (MS\BH17), at a concentration of 0.2mg/kg (in the same order of magnitude as the laboratory MDL), with no shallower soil sample collected. Given the relatively low concentration of 4-nitrophenol detected at shallow depths and a review of compounds with similar chemical composition, the measured concentration of 4-nitrophenol is not considered to represent a risk to human health via the direct contact pathways.

#### Asbestos

A total of 50 samples were analysed for the presence of asbestos (DGA only), with asbestos identified in 6No. of the samples analysed (approximately 10% of samples).

Sample depths where asbestos was detected ranged from 0.3m to 2.3m bgl, with maximum asbestos quantification total being 0.003%.

Asbestos quantification was carried out on 4No. samples by gravimetric methods. 4No. samples recorded asbestos between 0.002 and 0.003% m/m primarily as fibre bundles (mostly amosite and chrysotile), albeit the highest concentration was identified in a sample containing loose fibrous asbestos debris. The Remediation Strategy agreed for the wider site area (Arcadis 2022c), includes capping incorporated into the development which would address the presence of asbestos fibres by breaking the inhalation pathways..

### 4.3 Risks to Controlled Waters and Ecological Receptors

#### 3.3.1 Selection of GAC

Potentially active pollutant linkages in relation to Controlled Waters have been identified in the initial CSM as:

- E. Leaching of contaminants from on-Site Made Ground into groundwater, and subsequent lateral migration towards the identified surface water resource receptors (e.g., North Sea);
- F. Leaching of contaminants from on-Site Made Ground into groundwater, and subsequent lateral migration towards the identified water resource receptors (Secondary Aquifers);
- G. Leaching of contaminants from on-Site Made Ground into groundwater, and subsequent lateral migration towards the identified ecologically protected receptors associated with the North Sea;
- H. Lateral migration of contaminated groundwater associated with off-Site sources such as Made Ground across the wider Teeswork site, on to Site in relation to the identified water resource receptors.

An assessment of the potential for contaminants in the Made Ground on the Site to impact the Controlled Waters receptors identified in the CSM has been undertaken.

Concentrations of CoC in groundwater and leachate samples collected from F-BH102, screening the Tidal Flat Deposits and the Mercia Mudstone Group have been compared to Water Quality Standards (WQS). The WQS chosen are UK Drinking Water Standards (DWS) protective of aquifer water resources, and Environmental Quality Standards (EQS) considered protective of surface waterbody quality. The EQS are for saline waters protective of the North Sea receptor.

While the Tidal Flat Deposits / Blowing Sands are a Secondary A Aquifer in the vicinity of the site, they are regarded as having low resource value given the site setting, relatively low permeability, and the brackish nature of groundwater. Therefore, screening against DWS is regarded as a very conservative approach but will provide a context for the assessment.

#### 4.3.1 Soil Leachate

The results of 36 soil leachate tests (from on-Site soils within the DGA) were compared to WQS as shown in Appendix I Contaminant concentrations that exceeded the WQS are shown in the table below. The majority of the samples subject to leachate testing comprised Made Ground. Samples were taken across the site from depths ranging from -14.17 m AOD to 7.84m AOD. 4no. samples are below the remediation dig level of 4.80m AOD (Arcadis 2022c), all of which have exceedances.

| Compound                    | No. exceedances     | GAC (m | g/kg) | Maximum exceedance<br>(µg/L) |
|-----------------------------|---------------------|--------|-------|------------------------------|
| Compound                    |                     | EQS    | DWS   |                              |
| Aluminium                   | 15 x DWS            | -      | 200   | 1,275                        |
| Arsenic                     | 1 x EQS<br>2 x DWS  | 25     | 10    | 53                           |
| Chromium<br>(hexavalent)    | 7 x EQS             | 0.6    | -     | 101                          |
| Copper                      | 13 x EQS            | 3.76   | 2,000 | 19                           |
| Iron                        | 1 x DWS             | 1000   | 200   | 350                          |
| Lead                        | 13 x EQS<br>4 x DWS | 1.3    | 10    | 25                           |
| Mercury                     | 8 x EQS             | 0.07   | 1     | 0.22                         |
| Molybdenum                  | 1 x DWS             | -      | 70    | 310                          |
| Selenium                    | 1 x DWS             | -      | 10    | 14                           |
| Vanadium                    | 2 x EQS             | 100    | -     | 239                          |
| Zinc                        | 1 x EQS             | 7.9    | 3000  | 9.5                          |
| Ammoniacal Nitrogen<br>as N | 21 x EQS            | 0.021  | -     | 0.24                         |
| Cyanide Total               | 6 x EQS             | 1      | 50    | 5.9                          |
| Fluoride                    | 1 x DWS             | -      | 1500  | 1500                         |
| Nitrite (as NO2-)           | 2 x DWS             | -      | 0.5   | 2                            |
| Thiocyanate (as SCN)        | 13 x EQS            | 9      | -     | 280                          |
| Fluoranthene                | 24 x EQS            | 0.0063 | -     | 1.3                          |
| Anthracene                  | 2 x EQS             | 0.1    | -     | 0.66                         |
| Benzo(b)fluoranthene        | 5 x DWS             | -      | 0.025 | 0.11                         |

LAND WEST OF WARRENBY, TEESWORKS, REDCAR Contaminated Land Generic Quantitative Risk Assessment, Data Gap Areas REPORT NO: 10035117-AUK-XX-XX-RP-ZZ-623-01-Data Gap Areas GQRA

| Compound                            | No. exceedances      | GAC (m  | g/kg) | Maximum exceedance<br>(µg/L) |
|-------------------------------------|----------------------|---------|-------|------------------------------|
| Compositu                           |                      | EQS     | DWS   |                              |
| Benzo(k)fluoranthene                | 7 x DWS              | -       | 0.025 | 0.295                        |
| Benzo(a)pyrene                      | 11 x DWS<br>11 x EQS | 0.00017 | 0.01  | 0.488                        |
| Benzo(g,h,i)perylene                | 6 x DWS              | -       | 0.025 | 0.295                        |
| Indeno(1,2,3-<br>c,d)pyrene         | 6 x DWS              | -       | 0.025 | 0.346                        |
| >C6-C8 Aliphatics                   | 1 x EQS              | 4.55    | -     | 20                           |
| TPH >C5-C35<br>Aliphatics/Aromatics | 2 x DWS              | -       | 10    | 21                           |

#### 4.3.2 Groundwater

The maximum measured concentrations of CoC measured in groundwater samples collected from F-BH102 during monthly visits in September, November, and December 2022 by Arcadis were compared to WQS as shown in Appendix J

Contaminant concentrations that exceeded the WQS which may require further consideration are summarised below.

| Compound                    | No. exceedances    | WQS (m | ng/kg) | Maximum exceedance<br>(µg/L) |
|-----------------------------|--------------------|--------|--------|------------------------------|
|                             |                    | EQS    | DWS    |                              |
| Chromium (Filtered)         | 4 x EQS            | 0.6    | 50     | 12.2                         |
| Copper (Filtered)           | 2 x EQS            | 3.76   | 2,000  | 57.2                         |
| Lead (Filtered)             | 1 x EQS            | 1.3    | 10     | 7.1                          |
| Mercury (Filtered)          | 4 x EQS<br>2 x DWS | 0.07   | 1      | 187                          |
| Molybdenum (Filtered)       | 3 x DWS            | -      | 70     | 248                          |
| Selenium (Filtered)         | 2 x DWS            | -      | 10     | 7640                         |
| Ammoniacal Nitrogen<br>as N | 7 x EQS            | 0.021  | -      | 424,000                      |
| Nitrate (as NO2-)           | 2 x DWS            | -      | 0.5    | 75                           |
| Chloride                    | 1 x DWS            | -      | 250    | 982,000                      |

| Compound                             | No. exceedances    | WQS (mg/kg) |       | Maximum exceedance |
|--------------------------------------|--------------------|-------------|-------|--------------------|
| Compound                             |                    | EQS         | DWS   | (µg/L)             |
| Cyanide Total                        | 3 x EQS<br>1 x DWS | 1           | 50    | 114                |
| Sodium (Filtered)                    | 3 x DWS            | -           | 200   | 903,900            |
| Sulphate                             | 3 x DWS            | -           | 250   | 633.7              |
| Thiocyanate (as SCN)                 | 5 x EQS            | 9           | -     | 140                |
| Fluoranthene                         | 7 x EQS            | 0.0063      | -     | 0.209              |
| Anthracene                           | 2 x EQS            | 0.0063      | -     | 0.076              |
| Benzo(b)fluoranthene                 | 3 x DWS            | -           | 0.025 | 0.185              |
| Benzo(k)fluoranthene                 | 1 x DWS            | -           | 0.025 | 0.233              |
| Benzo(a)pyrene                       | 1 x EQS<br>1 x DWS | 0.00017     | 0.01  | 0.041              |
| Benzo(g,h,i)perylene                 | 1 x DWS            | -           | 0.025 | 0.213              |
| Indeno(1,2,3-<br>c,d)pyrene          | 1 x DWS            | -           | 0.025 | 3.642              |
| >C5-C6 Aliphatics                    | 7 x EQS            | 4.55        | -     | 98                 |
| >C6-C8 Aliphatics                    | 7 x EQS            | 4.55        | -     | 564                |
| >C8-C10 Aliphatics                   | 5 x EQS            | 4.55        | -     | 989                |
| >EC8-EC10 Aromatics                  | 4 x EQS            | 4.55        | -     | 68                 |
| TPH >C5-C35<br>Aliphatics/Aromatics  | 5 x DWS            | -           | 10    | 1344               |
| TPH Aliphatics &<br>Aromatics >C5-44 | 2 x DWS            | -           | 10    | 1321               |

A number of compounds have been measured in excess of either the DWS, EQS or both. In addition, a number of compounds were detected for which no GAC criteria were readily available. Exceedances are spread generally equally over the shallow and deep wells.

# **5 Review of Conceptual Site Model**

### 5.1 Environmental Site Setting

The environmental setting of the site including the DGA is summarised on Figure 5. Thisl identifies potentially sensitive land uses in the vicinity of the Site, alongside identified water resource and ecological receptors. Figure 6 includes a simplified profile of the geological conditions, alongside a conceptual cross-section identifying potentially active pollutant linkages.

### 5.2 Sources

#### 5.2.1 On-Site Sources

A number of potential sources were identified, these included Made Ground, localised sources and background conditions, as detailed below.

#### Made Ground – Site Wide

The DGA and the wider site is reclaimed land from the River Tees Estuary. The Made Ground used for the land reclamation is primarily composed of by-products from surrounding industrial processes, including slag. The Made Ground has therefore been considered as a single diffuse source of CoC beneath the entire site.

Contaminants primarily associated with Made Ground are found dispersed throughout the site in varying concentrations. Diffuse contaminants found throughout the site associated with Made Ground include metals, hydrocarbons including PAH, inorganics including cyanide, ammonia and sulphate, asbestos and limited amounts of other organic compounds.

GAC exceedances for the three additional areas indicate that contaminants beneath these locations is broadly in line with that of the rest of the site.

#### Other Potential On-Site Sources – Localised

The other potential sources, identified in addition to Made Ground, represent more localised potential sources of historical contamination with the additional areas, and included with respect to the DGA:

- Blast Furnace Stockhouse;
  - Raw materials storage
  - Transformers
  - Storage tanks
- Redcar Workshop and Stores;
- Residual Former Redcar works extends onto the wider Site
  - Storage tanks
  - Transformers

Other sources on the wider site and previously investigated (Arcadis 2022b) but outside the DGA include:

- Additional above ground storage tanks (various central eastern portion of the Site and additionally southern portion of the site);
- Transformers and substations (central portion of the site);
- Diesel storage tanks (adjacent to Redcar Worksop's and Stores
- Iron ponds & disposal area (northeast of the site);
- Workshop and stores (eastern portion of the site);

- D Jones Haulage and Construction (vehicle storage and maintenance located in the eastern portion of the site) with Tube city IMS [former on-site service provider] occupying this area prior to this;
- Railway lines (and potential for spills associated with transport of materials primarily in the northern portion of the site);
- Pellet Plant (southeastern portion of the site);
- Sinter Plant and sinter stocking area (southern portion of the site) the sinter stocking area was formerly used for pellets; and,
- Slag, Tar and Macadam works (northern portion of the site).

Contaminants associated with the above include asbestos, metals, hydrocarbons, PAH, inorganics including cyanide, ammonia and sulphate, polychlorinated biphenyls (PCB), and VOC and SVOC.

#### Other Potential On-Site Sources – Background

In addition to the above, it is important to note that certain CoC are naturally occurring in the environment as well as potentially present as a result of anthropogenic sources. This includes metals, PAH (which could be present as a result of the underlying geology) and certain inorganics (e.g. sulphate, which is a major ion in seawater).

#### 5.2.2 Off-Site Sources

In addition, a number of off-site sources were historically present associated with the wider Teesworks area. These included the following. Those in **bold italics** are considered to be hydraulically up-gradient of the Site:

- Tar lagoons (southwest of the Site),
- Blended ore stocks (west of the Site),
- Coal stocks area (southwest of the Site),
- Blended coal stocks (southwest of the Site),
- Coke crushing / blending (west of the Site),
- Blast furnace (west of the Site)
- Steel Works (west of the Site)
- Water treatments works (south of the Site),
- Landfills (south and east of the Site),
- Reclaimed land (wider area)
- Power station (west of the Site)
- Fuel storage (west of the Site).

Associated contaminants with the potential to affect groundwater quality include metals, hydrocarbons, PAH, inorganics including cyanide, ammonia and sulphate and other VOC and SVOC. Contaminants identified in 5.5.1 are in line with the those expected from these sources.

### **5.3 Contaminant Distribution**

The CoC distribution discussed in the sections below is based on the recent site. The focus is on those compounds found to exceed the GACs during screening undertaken in Section 4.2 and 4.3.

#### 5.3.1 Soil & Soil Leachate

#### Metals and Inorganics

Lead is found to exceed in soil in only one area, within the area of the Blast Furnace Stockhouse. Further metals (copper, iron, lead, manganese, vanadium, zinc) and inorganic species (including cyanide species) are found

throughout the three areas in soil leachate. In general, the distribution of metals and inorganics is relatively well dispersed, but metals are generally less abundant in the area of the old workshop/stores.

The presence of metals and inorganics is likely in part due to the Made Ground which includes slag from which the DGA areas are formed. Levels are of similar magnitude if not slightly lower than found across the wider site. As such within the DGA, the presence of metals and inorganics in soils is generally considered to be associated with a diffuse source associated with Made Ground, this conclusion is in line with that for the wider site (Arcadis 2022b)

#### Organic Compounds

The levels of PAH and TPH are generally of similar magnitude across the three DGA, however only Dibenzo(a,h)anthracene is shown to exceed the GAC.

In soil, maximum sum PAH and TPH concentrations were measured at 1.00m bgl in F-BH102 within the former Redcar works area. Sum PAH and TPH across the rest of the DGA is one to two orders of magnitude lower than this, potentially indicating the presence of a point source in F-BH102 with more diffuse source within the Made Ground elsewhere. A similar distribution is noted for PAH in soil leachate, sum TPH was only measured above MDL in two locations, in the area of the workshops/stores.

As such the distribution of organic compounds within the DGA is considered in line with the site-wide CSM (Arcadis 2022b), namely the presence of PAH and TPH in soil is considered to predominately be a diffuse source associated with Made Ground, although isolated and localised areas of higher concentrations associated with historical land uses are present.

#### 5.3.2 Groundwater

As only one groundwater well is located within the DGA contaminant distribution cannot be discussed in any detail, instead, contaminants will be discussed more generally.

Contaminants in excess of the appropriate WQS are found in both the shallow (Tidal Flat Deposits) and deep (Mercia Mudstone) wells and include selected metals (chromium, copper, lead, mercury, molybdenum, and selenium), PAH, TPH, and inorganic ions (including ammoniacal nitrogen, cyanide, sulphate, and thiocyanate). The contaminants identified above WQS in F-BH102 are in line with, and of similar magnitude to those observed for the wider site (Arcadis 2022b).

# 6 Conclusions

Additional ground investigation work has been conducted in the three DGA previously not accessible at the Site. The additional investigation in terms of the site coverage and CoC considered is appropriate given the PAOC identified within the DGA by the Desk Study (Arcadis 2022a). Soil, soil leachate and groundwater samples have been collected for laboratory analysis and screened against appropriate GAC as part of a GQRA to confirm if the CSM for the DGA is in line with that for the wider site.

## 6.1 Human Health

The results of the human health GQRA indicate that the CoC present beneath the three DGA are broadly in line with those measured across the wider site, and the CSM for the wider site stands when the additional data is included. The CoC measured do not imply any significant separate sources in terms of contaminant type or levels are present below any of the additional areas, and that Made Ground is likely to be the single diffuse soil source across the entire site.

As such to address the identified active Human Health pollutant linkages at the DGA it is considered appropriate to apply to the DGA the Remediation Strategy developed for the wider site which **does not** need to be updated to account for the additional data.

# 6.2 Controlled Waters

The results of the controlled waters GQRA indicate that the CoC present beneath the three DGA are broadly in line with those measured across the wider site, data does not imply any separate sources in terms of contaminant type or levels are present below the DGA.

The additional data collected as part of the DGA has been assessed to GQRA level within this report, whereas for the wider site a DQRA has been completed (Arcadis 2022b). Based on the findings in Section 5.3.2 the DQRA methodology and conclusions are considered appropriate to retrospectively assess the additional data collected without further modelling. As such the additional data **is not considered to change the outcome of the DQRA** that remediation to protect Controlled Waters is not required.

In conclusion, the Remediation Strategy (Arcadis 2022c) developed for the wider site to address Human Health risk only **does not** need to be updated to account for controlled waters or the additional data.

# 7 References

Department for Environment, Food and Rural Affairs (DEFRA), 2012. Contaminated Land Statutory Guidance, which came into force on 6th April 2012.

Environment Agency (EA), 2020. Land Contamination Risk Management (LCRM). Last updated 19th April 2021

# **Appendix A**

**NQMS Declaration Reference** 

Figures



Figures




ARCADIS Design & Consult for natural and built assets



SCALE



ORDNANCE SURVEY © CROWN COPYRIGHT 2023. ALL RIGHTS RESERVED. LICENCE NUMBER 100022432. CONTACT ARCADIS UK IN CASE OF ANY QUERIES





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**Decision Notice** 





# TOWN AND COUNTRY PLANNING ACT 1990

### NOTICE OF PLANNING PERMISSION

Applicant / Agent Name And Address

LICHFIELDS MR ADRIAN ARMSTRONG ST NICHOLAS BUILDING ST NICHOLAS STREET NEWCASTLE UPON TYNE NE1 1RF

### Reference No: R/2021/1048/FFM

The Council as the Local Planning Authority **HEREBY GRANT PLANNING PERMISSION** for the development proposed by you in your application valid on: 7 December 2021

### Details: ENGINEERING OPERATIONS ASSOCIATED WITH GROUND REMEDIATION AND PREPARATION OF THE SITE

Location: FORMER REDCAR STEELWORKS (TEESWORKS) LAND TO WEST OF WARRENBY REDCAR

### Applicant: SOUTH TEES DEVELOPMENT CORPORATION

Subject to the following condition(s):

1. The development shall not be begun later than the expiration of THREE YEARS from the date of this permission.

**REASON:** Required to be imposed pursuant to Section 91 of the Town and Country Planning Act 1990.

2. The development hereby permitted shall be carried out in accordance with the following approved plans:

Location Plan (Dwg No. SD-00.01) received by the Local Planning Authority on 07/12/21 Dig Depths Plan (Dwg No. 10035117-AUK-XX-DR-ZZ-0422-02-Net\_Zero\_Rem\_Ex) received by the Local Planning Authority on 07/12/21 Data Survey Plan (Dwg No. 10035117-AUK-XX-XX-DR-ZZ-0508-01-Net\_Zero\_Plot\_Data\_Gaps) received by the Local Planning Authority on 12/05/22

**REASON:** To accord with the terms of the planning application.

- 3. No phase of development shall take place until a Construction Environmental Management Plan (CEMP) for that phase of the development has been submitted to and approved in writing by the Local Planning Authority. The approved CEMP shall be adhered to throughout the construction period of that phase. The CEMP shall include details of any phasing of the approved works across the site and shall demonstrate how the mitigation measures set out in the Ecological Impact Assessment, INCA, dated November 2021 have been incorporated in the construction methods. The CEMP shall also include the following details:
  - i The method to be used to control the emission of dust, noise and vibration from construction works, including any details of any mitigation measures required;
  - ii Measures to control the deposit of mud and debris on adjoining public highways
  - iii Site fencing and security
  - iv Temporary contractors' buildings, plant, storage of materials, lighting and parking for site operatives
  - v The use of temporary generators
  - vi The arrangement or turning of vehicles within the site so that they may enter and leave in forward gear
  - vii A risk assessment of construction activities with potentially damaging effects on local ecological receptors including any measures to protect those receptors during construction
  - viii Roles and responsibilities for the implementation of the CEMP requirements and measures.
  - ix Measures to control invasive plant species
  - x Measures to control surface water and other water generated as part of the works

REASON: In the interest of neighbour amenity, highways safety and protection of sites of ecological value in accordance with policies SD4 and N4 of the Redcar and Cleveland Local Plan.

**REASON FOR PRE-COMMENCEMENT:** The information is required prior to any works commencing on site as it relates to construction details which are often the first works on site and relate to site preparation.

4. No development hereby approved shall commence within the areas outlined in blue on the submitted 'Net Zero Data Gaps' plan (Plan Ref. No. 10035117-AUK-XX-DR-ZZ[1]0508-01- Net\_Zero\_Plot\_Data\_Gaps) until a report of findings arising from Phase II intrusive site investigations including a risk assessment (generic or detailed quantitative assessment as required), and if required by the risk assessment an updated Remediation Strategy (any updated Remediation Strategy shall be subject to independent review through the National Quality Mark Scheme) has been submitted to and approved in writing by the Local Planning Authority (the submitted information shall consider the areas within the blue lines shown on the aforementioned plan only). The Assessment shall include measures and timescales for Remediation, Monitoring and Verification Reports include mitigation measures. REASON: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors, in accordance with the Local Plan and the National Planning Policy Framework.

5. Where required, the remediation and monitoring measures approved under Condition 4 shall be implemented in accordance with the timescales approved and in full accordance with the approved details.

REASON: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers and other offsite receptors, in accordance with the Local Plan and the National Planning Policy Framework.

6. The development within the application boundary (with the exception of the areas outlined in Blue on the submitted 'Net Zero Data Gaps' plan - Plan Ref. No. 10035117-AUK[1]XX-XX-DR-ZZ-0508-01- Net\_Zero\_Plot\_Data\_Gaps) shall be implemented in accordance with the measures set out in the submitted Enabling Earthworks and Remediation Strategy Report (Report Ref: 10035117-AUK-XX-XXRP-ZZ-0417-03). That Remediation Strategy Report shall be subject to independent review through the National Quality Mark Scheme. Should that review result in amendments being necessary, a revised Strategy Report shall be submitted and approved by the Local Planning Authority and development carried out in accordance with it.

REASON: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers and other offsite receptors, in accordance with the Local Plan and the National Planning Policy Framework.

7. Following completion of the approved remediation and monitoring measures, a verification report that demonstrates the effectiveness of the remediation carried shall be submitted to and approved in writing by the Local Planning Authority.

REASON: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors, in accordance with policies of the Local Plan and the National Planning Policy Framework. 8. In the event that contamination is found at any time when carrying out the approved development that was not previously identified it must be reported in writing immediately to the Local Planning Authority. prior to implementation of any amendments to the agreed strategy. An investigation and risk assessment must be undertaken, and where remediation is necessary a remediation scheme must be prepared which is subject to the approval in writing of the Local Planning Authority. The development shall then be carried out in accordance with the approved scheme.

REASON: To ensure that risks from land contamination to the future users of the land and neighbouring land are minimised, together with those to controlled waters, property and ecological systems, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors.

9. A scheme for managing and/or decommissioning any borehole installed for the investigation of soils, groundwater or geotechnical purposes shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall provide details of how redundant boreholes are to be decommissioned and how any boreholes that need to be retained, postdevelopment, for monitoring purposes will be secured, protected and inspected. The scheme as approved shall be implemented prior to the occupation of any part of the permitted development.

REASON: To ensure that redundant boreholes are safe and secure, and do not cause groundwater pollution or loss of water supplies in line with paragraph 174 of the NPPF and 'The Environment Agency's approach to groundwater protection'.

10. There shall be no site vegetation clearance between March to the end of August unless the project ecologist has first undertaken a checking survey immediately prior to the clearance and confirms in writing to the Local Planning Authority that no active nests are present.

**REASON:** To conserve protected species and their habitat in accordance with policy N4 of the Local Plan.

**Statement of Co-operative Working:** The Local Planning Authority considers that the application as originally submitted is a satisfactory scheme and therefore no negotiations have been necessary.

f. letter

Signed:

Andrew Carter Assistant Director Economic Growth

Date: **11 August 2022** 

### YOUR ATTENTION IS DRAWN TO INFORMATIVE NOTES BELOW:

#### **INFORMATIVE NOTE:**

The conditions above should be read carefully and it is your (or any subsequent developers) responsibility to ensure that the terms of all conditions are met in full at the appropriate time (as outlined in the specific condition).

Please note that in order to discharge any conditions, a fee is payable in respect to this.

Failure on the part of the developer to fully meet the terms of any conditions which require the submission of details prior to the commencement of development may result in the development being considered unlawful and may render you liable to formal enforcement action.

Failure on the part of the developer to observe the requirements of any other conditions could result in the Council pursuing formal action in the form of a Breach of Condition notice.

#### **APPROVAL INFORMATIVE:**

This permission refers only to that required under the Town and Country Planning Acts and does not include any consent or approval under any other enactment, byelaw, order or regulation.

Consent under the current Building Regulations may also be required for the development before work can commence.

#### **CATS Pipeline**

In addition to the statutory consultees, applicants should also consider what other stakeholders should be consulted. For example, in the case of any development taking place that may affect High Pressure Gas Pipelines, operated by CATS North Sea Limited on behalf of the owners of the pipeline, please consult with CATS North Sea Limited at <u>CATSpipeline@woodplc.com</u> 01642 546404 CATS Terminal, Seal Sands Road, Seal Sands, Teesside TS2 1UB.

#### County of Cleveland Act, 1987 – Facilities for Fire Fighting

Section 5 of this Act requires that, where building regulation plans for the erection or extension of a building are deposited with the Council, the Council must reject the plans if it is not satisfied:

- That there will be adequate means of access for the Fire Brigade
- That the building or extension will not make means of access for the Fire Brigade to any neighbouring building inadequate
- If the building could be used for commercial or industrial purposes, that there is provision for installation of fire hydrants or other provision for an adequate supply of water for firefighting purposes.

#### Appeals to the Secretary of State

If you are aggrieved by the decision of your local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then you can appeal to the Secretary of State under Section 78 of the Town and Country Planning Act 1990.

If you want to appeal, then you must do so within the timeframes stated below:

• **12 weeks** of the date of this notice for a householder application/minor commercial application;

- six months of the date of this notice for other planning applications
- 8 weeks in the case of any advertisement

using a form which you can get from the Secretary of State at **Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN, (Tel: 0303 444 5000)** or online at

https://www.gov.uk/planning-inspectorate. The Secretary of State can allow a longer period for giving notice of an appeal, but will not normally be prepared to use this power unless there are special circumstances, which excuse the delay in giving notice of appeal.

The Secretary of State need not consider an appeal if it seems to them that the local planning authority could not have granted planning permission for the proposed development or could not have it granted without the conditions it imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order. In practice, the Planning Inspectorate does not refuse to consider appeals solely because the local planning authority based its decision on a direction given by them.

#### Purchase Notices

If either the Local Planning Authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that they can neither put the land to a reasonably beneficial use in its existing state nor can they render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

In the circumstances, the owner may serve a purchase notice on the Council (District Council, London Borough Council or Common Council of the City of London) in whose area the land is situated. This notice will require the Council to purchase his interest in the land in accordance with the provisions of part VI of the Town and Country Planning Act 1990.

#### **Compensation**

In certain circumstances compensation may be claimed from the local planning authority if permission is refused or granted subject to conditions by the Planning Inspectorate on appeal or on reference of the application to them. These circumstances are set out in Section 114 and related provisions of the Town & Country Planning Act 1990.

#### The Highways Act 1980 (Sections 131, 133 and 171)

Prior to commencing work on any development which entails interference with an adopted Highway a developer/contractor is required to obtain the consent of the Engineering (Highways Team). Such consent will not unreasonably be withheld but will be conditional upon obtaining a "Road Opening And Reinstatement" Consent and signing an "Undertaking To Pay For Works".

#### The Building Act 1984 (Section 80)

Prior to commencing work on any development which entails the demolition of part, or all of a building a developer or contractor is required to obtain the consent of the Engineering Team. Consent will be conditional on the Local Authority receiving the appropriate forms. Forms can be obtained direct from the Engineering Team.

Study Limitations



**IMPORTANT**. This appendix should be read before reliance is placed on any of the information, opinions, advice, recommendations or conclusions contained in this report.

1 This report has been prepared by Arcadis (UK) Limited ('Arcadis'), with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with South Tees Development Corporation (UK) Limited (the 'Client'). Arcadis does not accept responsibility for any matters outside the agreed scope.

2 This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing. otherwise in writing. The contents of this report may not be used or relied upon by any person other than this party without the express written consent and authorisation of Arcadis.

3 Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Arcadis is unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have unpublished, more stringent objectives. Further work may be required by these parties.

4 All work carried out in preparing this report has used, and is based on, Arcadis' professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice, pending changes in legislation, of which Arcadis is aware, have been considered. Following delivery of the report, Arcadis has no obligation to advise the Client or any other party of such changes or their repercussions.

5 This report is only valid when used in its entirety. Any information or advice included in the report should not be relied upon until considered in the context of the whole report.

6 Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties. provided by third parties. Arcadis has taken reasonable steps to ensure that the information sources used for this assessment provided accurate information, and has therefore assumed this to be the case.

7 This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have been received.

8 This report refers, within the limitations stated, to the condition of the site at the time of the inspection. No warranty is given as to the possibility of changes in the condition of the site since the time of the investigation.

9 The content of this report represents the professional opinion of experienced environmental consultants. Arcadis

does not provide specialist legal or other professional advice. The advice of other professionals may be required.

10 Where intrusive investigation techniques have been employed they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases the investigation is further limited by site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the site have not been investigated.

11 If below ground intrusive investigations have been conducted as part of the scope, safe location of exploratory holes has been carried out with reference to the Arcadis ground disturbances procedure. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on site.

12 Unless otherwise stated the report provides no comment on the nature of building materials, operational integrity of the facility or on any regulatory compliance issues.

13 Unless otherwise stated, an inspection of the site has not been undertaken and there may be conditions present at the site which have not been identified within the scope of this assessment.

14 Unless otherwise stated, samples from the site (soil, groundwater, building fabric or other samples) have not been obtained.

15 Arcadis has relied upon the accuracy of documents, oral information and other material and information provided by the Client and others, and Arcadis assumes no liability for the accuracy of such data, although in the event of apparent conflicts in information, Arcadis would highlight this and seek to resolve.

16 Unless otherwise stated, the scope of works has not included an environmental compliance review, health and safety compliance review, hazardous building materials assessment, interviews or contacting Local Authority, requests for information to the petroleum officer, sampling or analyses of soil, ground water, surface water, air or hazardous building materials or a chain of title review.

17 Unless otherwise stated, this assessment has considered the ongoing use of the site and has not been prepared for the purposes of redevelopment which may act as a trigger for site investigation and remediation works not needed for ongoing use

LAND WEST OF WARRENBY, TEESWORKS, REDCAR Contaminated Land Generic Quantitative Risk Assessment, Data Gap Areas REPORT NO: 10035117-AUK-XX-RP-ZZ-623-01-Data Gap Areas GQRA

## Appendix E

**Summary of Previous Site Investigation Data** 

| Project<br>Teeswork      | s - LWW Site  |   | Project No.<br>10047374<br>Easting (OS mE) | Gro<br>7.4<br>Nor | und Level<br>13<br>thing (OS | (mAOD)<br>mN)                         | Start I<br>05/1<br>End I | Date<br>2/2022<br>Date | 2 1                  | <sup>:26</sup> |                      |
|--------------------------|---|---|--|-------------------|------------------------------|---------------------------------------|--------------------------|------------------------|----------------------|----------------|----------------------|
| STDC                     |   |   | 456879.33                                  | 52                | 5664.8                       | 37                                    | 05/1                     | 2/2022                 | 2 S                  | heet 1         | of 1                 |
| SAMPLES                  | TESTS   |   | S  | TRATA             |                              |                                       | $\neg$                   | Legend                 | Depth<br>(Thickness) | Level          | Install/<br>Backfill |
|                          | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,               | MADE GROUND: Soft light brown s                         | andy very grave                            | Ily CLAY with     | n grass a                    | nd rootlets.                          |                          | <br>XXXX               |                      | -              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        | (0.20)               | 7.02           |                      |
|                          |   | MADE GROUND: Loose to medium<br>– Slag Rich Made Ground | dense grey slig                            | htly sandy gr     | avel of a                    | ngular slag.                          |                          |                        | 0.20                 | 1.23           |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        | (0.90)               | Į              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
| (FSL)404/                | DID(1) 1.00m <1mm                                     | -   |  |                   |                              |                                       |                          |                        |                      | +              |                      |
| TP01-S1) 1.00            |   |   | donco brownich                             |                   | and y yor                    | weekly angular gravely                |                          | >>>>                   | 1.10                 | 6.33           |                      |
|                          |   | - SLAG.<br>Slag Rich Made Ground                        |  | i grey very sa    | andy ver                     | y cobbly angular graver o             | "                        | >>>                    |                      | ŧ              |                      |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      | ł              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ļ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ł              |                      |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      | Į              |                      |
| (ESLWW-<br>TP01-S2) 2 00 | PID(2) 2.00m <1ppm                                    | _   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      | ł              |                      |
|                          |   |   |  |                   |                              |                                       |                          | >>>                    |                      | Į              |                      |
|                          |   | _   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ł              |                      |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      | Į              |                      |
|                          |   | _   |  |                   |                              |                                       |                          |                        | (3.30)               | ŧ              |                      |
|                          | $PID(2) = 2.00 \mathrm{m}$ < 1 mm                     |   |  |                   |                              |                                       |                          |                        |                      |                |                      |
| TP01-S3) 3.00            |   | -   |  |                   |                              |                                       |                          |                        |                      | ļ              |                      |
|                          |   | _   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   |   |  |                   |                              |                                       |                          | >>>                    |                      | ł              |                      |
|                          |   | _   |  |                   |                              |                                       |                          |                        |                      | ļ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | +              |                      |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      | Į              |                      |
| (ESLWW-<br>TP01-S4) 4 00 | PID(4) 4.00m <1ppm                                    | _   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | _   |  |                   |                              |                                       |                          |                        |                      | ł              |                      |
|                          |   | -   |  |                   |                              |                                       | _                        |                        | 4.40                 | 3.03           | ᇤᄪᇳ                  |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | ŧ              |                      |
|                          |   | _   |  |                   |                              |                                       |                          |                        |                      | ł              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | Į              |                      |
|                          |   | -   |  |                   |                              |                                       |                          |                        |                      | 1              |                      |
| PLAN DETAI               | LS  |   |  | WATER             | OBSER                        | VATIONS                               |                          |                        | INSTRUM              | IENTS          |                      |
| -                        | 3.0   | 4   | Date/Time                                  | Strike Rest       | Mins                         | Remarks<br>No groundwater encounte    | red                      | Nam                    | ie                   | Туре           | m AGL                |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      |                |                      |
|                          |   | Shoring / Support:<br>Stability: Very Stable            | Cable extendin                             | g diagonally      | across c                     | REMARKS<br>corner of TP, was not pick | (ed u                    | p with C/              | AT/GENNY             | and not o      | on utility           |
| 1.5                      |   | Long Axis Orientation:                                  | plans.<br>Remediation D                    | ig Depth to 2     | 633m A                       | OD.                                   |                          |                        |                      |                | 2                    |
|                          |   |   |  |                   |                              |                                       |                          |                        |                      |                |                      |
|                          |   | J   | <u> </u>                                   |                   |                              |                                       |                          |                        |                      |                |                      |
| Unless<br>Depth          | otherwise stated:<br>(m), Diameter (mm), Time (hhmm), | Equipment Used  |  | Terr              | mination D                   | Depth                                 |                          | Lo                     | ogged By             | Checke         | ed By                |

| Teesworks<br>Client              | s - LWW Site               |  | Project No.<br>10047374<br>Easting (OS mE) | Ground Level (mAOD)<br>7.90<br>Northing (OS mN)<br>525509 16 | Start Date<br>05/12/2022<br>End Date<br>05/12/2022 | 2 1:                 | <sup>ale</sup><br>:25<br>boot 1 of 1 |
|----------------------------------|----------------------------|--|--|--|--|----------------------|--------------------------------------|
|                                  | теото                      |  | 457.005.00                                 | 525509.10  | 05/12/202  | 2 3                  |                                      |
| SAMPLES                          | Tupo Dopth Recult          |  | Description                                | IA   | Logond   | Depth<br>(Thickness) | Level Backfill                       |
| Беріп - Туре                     | Type - Deptil - Result     | MADE GROUND: Soft brown clayes   | v sand with roots and                      | fine to medium sub-rounded to sub-                           |  | (                    |                                      |
|                                  |                            | angular gravel of bituminous surfaci   | ng.  | \/EI   | -  | (0.15)<br>0.15       | 7.75₩≡₩≡                             |
|                                  |                            |  |  |  |  | (0.15)               |                                      |
|                                  |                            | MADE GROUND: Beige fine to med   | lium SAND (Utility Ba                      | ackfill)   |  | (0.25)               |                                      |
|                                  |                            | -  |  |  |  | 0.55                 |                                      |
|                                  |                            | <ul> <li>MADE GROUND: Dark grey very sa<br/>brick (whole and fragments)</li> </ul> | andy cobbly coarse a                       | ngular Gravel of Slag with beige refra                       | ctory  | 0.00                 |                                      |
|                                  |                            | Slag Rich Made Ground  |  |  |  | \$                   |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
| (ESLWW-                          | PID(1) 1.00m <1ppm         | _  |  |  |  |                      |                                      |
| TP02-S1) 1.00                    |                            | -  |  |  |  |                      |                                      |
|                                  |                            | -  |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  | (1.55)               |                                      |
|                                  |                            | _  |  |  |  |                      |                                      |
|                                  |                            | -  |  |  |  |                      |                                      |
|                                  |                            | -  |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
| (ESLWW-                          | PID(2) 2.00m <1ppm         |  |  |  |  |                      |                                      |
| TP02-S2) 2.00                    | ····(-) -·····             |  | nd black veny gravelly                     | SAND with occasional cobbles of sl                           |  | 2.10                 | 5.80                                 |
|                                  |                            | - ash and crushed brick.   | nd black very gravely                      | SAND with occasional cobbles of sig                          | <sup>ay,</sup>                                     | <                    |                                      |
|                                  |                            | Granular Made Ground   |  |  |  | <                    |                                      |
|                                  |                            |  |  |  |  | <                    |                                      |
|                                  |                            |  |  |  |  | <                    |                                      |
|                                  |                            | -  |  |  |  | <                    |                                      |
|                                  |                            | -  |  |  |  | <                    |                                      |
|                                  |                            | -  |  |  |  | <                    |                                      |
| (ESLWW-<br>TP02-S3) 3.00         | PID(3) 3.00m <1ppm         | ]  |  |  |  | < -                  |                                      |
|                                  |                            |  |  |  |  | <                    |                                      |
|                                  |                            | -  |  |  |  | (2.40)               |                                      |
|                                  |                            | -  |  |  |  | 4                    |                                      |
|                                  |                            | -  |  |  |  | 4                    |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
|                                  |                            | -  |  |  |  |                      |                                      |
| (ESLWW-<br>TP02-S4) 4.00         | PID(4) 4.00m <1ppm         | -  |  |  |  |                      |                                      |
| ,                                |                            |  |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
|                                  |                            | -  |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  | 4.50                 | 3.40                                 |
|                                  |                            | -  |  |  |  |                      |                                      |
|                                  |                            | ]  |  |  |  |                      | ŧ I                                  |
|                                  |                            | 4  |  |  |  |                      |                                      |
|                                  |                            | _  |  |  |  | .                    | +                                    |
| PLAN DETAIL                      | LS                         |  |  | WATER OBSERVATIONS   |  | INSTRUM              | ENTS                                 |
|                                  | 3.0                        | 4  | Date/Time Strik                            | Rest Mins Remarks No groundwater enco                        | untered  | ne                   | Type m AGL                           |
|                                  |                            |  |  |  |  |                      |                                      |
|                                  |                            | Shoring / Support:<br>Stability: Unstable, sides undercut due<br>to collapse       | Remediation Dia De                         | REMARKS<br>epth to 3.103m AOD.                               |  |                      |                                      |
| 1.5                              |                            | Long Axis Orientation:   |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
|                                  |                            |  |  |  |  |                      |                                      |
| Unless                           | otherwise stated:          | Equipment Used   | I  | Termination Depth  | L  | ogged By             | Checked By                           |
| AGS<br>Restriction of the legent | Above Ground Level (m AGL) | 75 tonne exca  | vator                                      | 4.50m  | c  | )G                   | JM                                   |

| Project<br>Teesworks<br>Client | s - LWW Site                     |   | Project No.<br>10047374<br>Easting (OS mE) | Grou<br>7.2<br>Norti | ind Level<br>5<br>hing (OS | (mAOD)                             | Start Date<br>05/12/2022<br>End Date | 2 1:           | ale<br>25 |            |
|--------------------------------|----------------------------------|---|--|----------------------|----------------------------|------------------------------------|--------------------------------------|----------------|-----------|------------|
| STDC                           |                                  |   | 456884.57                                  | 52                   | 5505.8                     | 57                                 | 05/12/2022                           | 2 S            | heet 1    | of 1       |
| SAMPLES                        | TESTS                            |   | STR  | RATA                 |                            |                                    |                                      | Depth          |           | Install/   |
| Depth - Type                   | Type - Depth - Result            |   | Descriptio                                 | n                    |                            |                                    | Legend                               | (Thickness)    | Levei     | Backfill   |
|                                |                                  | MADE GROUND: Grey/black fractur   | red bituminous sur                         | facing.              |                            |                                    |                                      | (0.10)         | 7 15      |            |
|                                |                                  | MADE GROUND: Light grey angula  | ar GRAVEL.                                 |                      |                            | · · · ·                            |                                      | (0.10)<br>0.20 | 7.05      |            |
|                                |                                  | <ul> <li>MADE GROUND: Greyish brown me</li> <li>cobbles of slag.</li> </ul> | ealum aense very                           | sandy GRA            | VEL WIT                    | n occasional angular               |                                      |                | 1         |            |
|                                |                                  | _ Slag Rich Made Ground   |  |                      |                            |                                    |                                      |                | ŧ         |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | ł         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | -         | ≣≝≣        |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | 1         |            |
|                                |                                  | ]   |  |                      |                            |                                    |                                      |                | Ī         |            |
| (ESLWW-                        | PID(1) 1.00m <1ppm               | _   |  |                      |                            |                                    |                                      |                | +         | ⋓≡⋓<br>⋿⋓⋿ |
| TP03-S1) 1.00                  |                                  | _   |  |                      |                            |                                    |                                      |                | +         |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      | (2.00)         | ŧ         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | I         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | -         | ≡≡≡<br>⊯≡⊯ |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                |           |            |
|                                |                                  |   |  |                      |                            |                                    |                                      |                | Ī         | ≣⊒≣        |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | -         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | +         |            |
| (ESLWW-                        | PID(2) 2.00m <1ppm               | _   |  |                      |                            |                                    |                                      | -              | ŧ         | ║═║<br>═║═ |
| 1903-32) 2.00                  |                                  | -   |  |                      |                            |                                    |                                      |                | ļ         |            |
|                                |                                  | MADE GROUND: Dark grey occasio  | onally black very sa                       | andy GRAV            | 'EL with                   | angular cobbles of slag            | . 🗱                                  | 2.20           | 5.05      |            |
|                                |                                  | <ul> <li>Slag Rich Made Ground</li> </ul>                                   |  |                      |                            |                                    |                                      |                | ŧ         |            |
|                                |                                  |   |  |                      |                            |                                    |                                      |                | ļ         | ≡≡≡<br>⊯≡⊯ |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | +         | ≡∥≡<br>⊮≡⊮ |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | 1         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | ŧ         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | I         |            |
| (ESLWW-<br>TP03-S3) 3.00       | PID(3) 3.00m <1ppm               | -   |  |                      |                            |                                    |                                      | -              | +         | ║═║<br>═║═ |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | ţ         |            |
|                                |                                  |   |  |                      |                            |                                    |                                      |                | Ī         |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | -         |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      | (2.60)         | +         | ≡≡<br>≡≡≡  |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | ŧ         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | I         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | +         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | 1         | ┉═┉<br>═║═ |
| (ESLWW-<br>TP03-S4) 4.00       | PID(4) 4.00m <1ppm               |   |  |                      |                            |                                    |                                      | -              | Ī         |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | ļ         | Ľ≞≣        |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | ł         |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      |                | ŧ         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | Ŧ         | ≡≡<br>₩≡₩  |
|                                |                                  | -   |  |                      |                            |                                    |                                      |                | -         |            |
|                                |                                  | -   |  |                      |                            |                                    |                                      | 4.00           | 1 0.15    |            |
|                                |                                  |   |  |                      |                            |                                    |                                      | 4.80           | 2.45      |            |
|                                |                                  | _   |  |                      |                            |                                    |                                      | -              | +         |            |
| PLAN DETAIL                    | _S                               |   |  | WATER                | OBSER                      | /ATIONS                            |                                      | INSTRUM        | ENTS      |            |
|                                | 3.0                              |   | Date/Time S<br>05/12/2022 00:00 4          | trike Rest           | Mins                       | Remarks<br>Groundwater encountered | Nam                                  | e .            | Гуре      | m AGL      |
|                                |                                  | ]   |  |                      |                            |                                    |                                      |                |           |            |
|                                |                                  | Shoring / Support:<br>Stability: Very stable                                | Dama II II Di                              | D                    | 457 -                      | REMARKS                            | •                                    |                |           |            |
| 1.5                            |                                  |   | Remediation Dig                            | Depth to 2.          | 457 m A                    | עט.                                |                                      |                |           |            |
|                                |                                  | Long Axis Orientation:  |  |                      |                            |                                    |                                      |                |           |            |
|                                |                                  |   |  |                      |                            |                                    |                                      |                |           |            |
| Unlas -                        | othonwise stated                 |   |  | _                    |                            |                                    |                                      |                | 0.        |            |
| Depth (                        | (m), Diameter (mm), Time (hhmm), | Equipment Used  |  | Term                 | nination D                 | lepth                              | Lo                                   | ogged By       | Checke    | d By       |

| Project<br>Teesworks<br>Client<br>STDC | s - LWW Site  |  | Project No.<br>10047374<br>Easting (OS mE)<br>457027.03 | Ground Level<br>7.06<br>Northing (OS 1<br>525409.9 | (mAOD) S<br>(mN) E<br>(5 0          | tart Date<br>)6/12/202<br>ind Date<br>)6/12/202 | 22 1<br>22 S         | <sup>ale</sup><br>:25<br>heet 1 | of 1                 |
|--|---|--|---|--|-------------------------------------|---|----------------------|---------------------------------|----------------------|
|  | тгете   |  | CTDATA  |  |                                     |   |                      |                                 |                      |
| Depth - Type                           | Type - Depth - Result   |  | Description   |  |                                     | Legend  | Depth<br>(Thickness) | Level                           | Install/<br>Backfill |
|  |   | MADE GROUND: Dark brown loose  | e very sandy GRAVEL w                                   | ith occasional                                     | cobbles of brick and slag           | ].  | (0.50)               |                                 |                      |
|  |   | MADE GROUND: Brownish orange   | loose GRAVEL of fragn                                   | nented, crushe                                     | ed and powdered brick.              |   | 0.50 (0.30)          | 6.56                            |                      |
|  |   | MADE GROUND: Black loose occas<br>Granular Made Ground                                       | sionally light grey ashy s                              | slightly sandy (                                   | GRAVEL.                             |   | 0.80                 | 6.26                            |                      |
| (ESLWW-<br>TP04-S1) 1.00               | PID(1) 1.00m <1ppm  | MADE GROUND: Brown loose fine<br>GRAVEL with cobbles of refractory b<br>Granular Made Ground | to coarse SAND and be<br>prick.                         | ige sub-round                                      | ed to sub-angular                   |   | 1.00                 | 6.06                            |                      |
|  |   |  |   |  |                                     |   | (0.80)               |                                 |                      |
| (ESLWW-<br>TP04-S2) 2.00               | PID(2) 2.00m <1ppm  | MADE GROUND: Reddish brown lo<br>brick and slag.<br>Granular Made Ground                     | ose very sandy fine to o                                | coarse angular                                     | GRAVEL with cobbles o               | f   | 1.80                 | 5.26                            |                      |
|  |   |  |   |  |                                     |   |                      |                                 |                      |
| (ESLWW-<br>TP04-S3) 3.00               | PID(3) 3.00m <1ppm  |  |   |  |                                     |   | (2.90)               |                                 |                      |
|  |   |  |   |  |                                     |   |                      |                                 |                      |
| (ESLWW-<br>TP04-S4) 4.00               | PID(4) 4.00m <1ppm  |  |   |  |                                     |   |                      |                                 |                      |
|  |   | -  |   |  |                                     |   | 4.70                 | 2.36                            |                      |
| PLAN DETAIL                            | LS  |  | WA  | TER OBSERV   | ATIONS                              | _   | INSTRUM              | IENTS                           |                      |
|  | 3.0   | 4  | Date/Time Strike  | Rest Mins  | Remarks<br>No groundwater encounter | ed Na   | me                   | Туре                            | m AGL                |
| 1.5                                    |   | Shoring / Support:<br>Stability: Stable<br>Long Axis Orientation:                            | Remediation Dig Dept                                    | h to 3.264m A                                      | REMARKS<br>OD.                      |   |                      |                                 |                      |
| Unless<br>AGS<br>Freitheit uter aut    | i otherwise stated:<br>(m), Dlameter (mm), Time (hhmm),<br>ess (m), Level (mAOD),<br>Above Ground Level (m AGL) | Equipment Used   | vator   | Termination D                                      | epth                                |   | Logged By            | Checked<br>JM                   | i By                 |

| Project<br>Teeswork      | s - LWW Site   |   | Project No.<br><b>10047374</b><br>Easting (OS mE) | Ground Le<br>7.51<br>Northing ( | evel (mAOD)<br>OS mN)                | Start Date | 2022         | 2 1:        | ale<br>25     |          |
|--------------------------|--|---|---|---------------------------------|--------------------------------------|------------|--------------|-------------|---------------|----------|
|                          | 1  |   | 456931.49   | 52530                           | 9.61                                 | 06/12/     | 2022         | 2 3         |               | 11       |
| SAMPLES                  | TESTS  |   | STR/  | ATA                             |                                      |            |              | Depth       | Level Ir      | nstall/  |
| Depth - Type             | Type - Depth - Result                                |   | Description                                       | fine to coorce                  | vonucendu fine te coerce             | Le         | gend         | (THICKHESS) |               |          |
|                          |  | - gravel.   | ish grey dense grey                               | line to coarse                  | very saridy, line to coarse          |            | $\times$     | (0.15)      | 7 36          |          |
|                          |  | _ MADE GROUND: Beige and grey m<br>angular gravel with frequent cobbles | nedium dense slight<br>s of sub-rounded to        | ly sandy mediu<br>angular slag. | Im to coarse sub-rounded             | to 🔀       | $\times$     | 0.10        |               |          |
|                          |  |   |   |                                 |                                      |            | $\bigotimes$ |             |               |          |
|                          |  | _   |   |                                 |                                      |            | $\otimes$    | (0.65)      |               |          |
|                          |  | -   |   |                                 |                                      |            | $\otimes$    |             |               |          |
|                          |  | -   |   |                                 |                                      |            | $\bigotimes$ | 0.00        | 0.74          |          |
|                          |  | MADE GROUND: Brown medium de<br>frequent angular cobbles of slag.       | ense to coarse sligh                              | ntly sandy medi                 | ium to coarse GRAVEL wit             | h 🕅        |              | 0.80        | 0.71          |          |
| (ESLWW-                  | PID(1) 1.00m <1ppm                                   | Slag Rich Made Ground   |   |                                 |                                      |            | $\otimes$    | -           |               |          |
| 1905-51) 1.00            |  | -   |   |                                 |                                      |            | $\times$     |             |               |          |
|                          |  |   |   |                                 |                                      |            | $\times$     | (1.00)      |               |          |
|                          |  |   |   |                                 |                                      |            | $\bigotimes$ | (1.00)      |               |          |
|                          |  | _   |   |                                 |                                      |            | $\otimes$    |             |               |          |
|                          |  | -   |   |                                 |                                      |            | $\otimes$    |             |               |          |
|                          |  | -   |   |                                 |                                      |            | $\mathbf{X}$ | 1 80        | 5 71          | ===      |
|                          |  | MADE GROUND: Brownish dark gro<br>– Granular Made Ground                | ey loose very sandy                               | GRAVEL with                     | cobbles of slag.                     |            | >>>          | 1.00        |               |          |
| (ESLWW-<br>TP05-S2) 2 00 | PID(2) 2.00m <1ppm                                   | _   |   |                                 |                                      |            | $\times$     | -           |               | ===      |
|                          |  | -   |   |                                 |                                      |            | $\bigotimes$ |             |               | ===      |
|                          |  |   |   |                                 |                                      |            | $\bigotimes$ |             |               |          |
|                          |  | -   |   |                                 |                                      |            | $\bigotimes$ |             |               |          |
|                          |  | _   |   |                                 |                                      |            | $\sim$       | -           | ┆             | ===      |
|                          |  | -   |   |                                 |                                      |            | XX           |             | ┆             | ==       |
|                          |  | _   |   |                                 |                                      |            | $\otimes$    |             | ┆             | ==       |
|                          |  | -   |   |                                 |                                      |            | $\times$     |             | ┆ ║           |          |
| (ESLWW-<br>TP05-S3) 3.00 | PID(3) 3.00m <1ppm                                   | _   |   |                                 |                                      |            | $\bigotimes$ | (2.50)      | ╞             |          |
|                          |  |   |   |                                 |                                      |            | $\otimes$    |             | [ ■           |          |
|                          |  | -   |   |                                 |                                      |            | $\otimes$    |             |               |          |
|                          |  | -   |   |                                 |                                      |            | >>>          |             |               |          |
|                          |  | _   |   |                                 |                                      |            |              |             |               |          |
|                          |  | _   |   |                                 |                                      |            | $\times$     |             |               |          |
|                          |  | _   |   |                                 |                                      |            | $\times$     |             |               |          |
|                          |  | -   |   |                                 |                                      |            | $\otimes$    |             |               | =#<br>#= |
| (ESLWW-<br>TP05-S4) 4.00 | PID(4) 4.00m <1ppm                                   |   |   |                                 |                                      |            | $\otimes$    | -           |               |          |
|                          |  | _   |   |                                 | Dig Depth to 1.035m A                |            | $\bigotimes$ |             |               |          |
|                          |  | -   |   |                                 |                                      | -          | ~~~          | 4.30        | 3.21 <b>Ⅲ</b> | =        |
|                          |  | -   |   |                                 |                                      |            |              |             |               |          |
|                          |  | _   |   |                                 |                                      |            |              |             | +<br>+        |          |
|                          |  | -   |   |                                 |                                      |            |              |             | Į I           |          |
|                          |  | -   |   |                                 |                                      |            |              |             | ł             |          |
|                          |  |   |   |                                 |                                      |            |              | -           | Ļ             |          |
| PLAN DETAI               | LS   |   |   | WATER OBSI                      | ERVATIONS                            |            |              | INSTRUM     | ENTS          |          |
|                          | 3.0  | 4   | Date/Time Str                                     | ike Rest Mi                     | ns Remarks<br>No groundwater encount | ered       | Nam          | e -         | Type n        | n AGL    |
|                          |  |   |   |                                 |                                      |            |              |             |               |          |
|                          |  | Shoring / Support:<br>Stability: Very stable                            | Remediation Dig F                                 | Depth to 3.717r                 | REMARKS                              |            |              |             |               |          |
| 1.5                      |  | Long Axis Orientation:  |   | F 10 0.7 171                    |                                      |            |              |             |               |          |
|                          |  |   |   |                                 |                                      |            |              |             |               |          |
|                          |  |   |   |                                 |                                      |            |              |             |               |          |
| Unless<br>Depth          | otherwise stated:<br>(m), Diameter (mm). Time (hhmm) | Equipment Used  |   | Terminatio                      | on Depth                             |            | Lo           | ogged By    | Checked E     | Ву       |
| AGS Thickn<br>Height     | ess (m), Level (mAOD),<br>Above Ground Level (m AGL) | 75 tonne exca   | vator   | 4.30m                           |                                      |            | 0            | G           | JM            |          |

| Project<br>Teesworks<br>Client<br>STDC | s - LWW Site  |   | Project No.<br>10047374<br>Easting (OS mE)<br>457115.41 | Ground Level (mAOD)<br>7.30<br>Northing (OS mN)<br>525261.83 | Start Date<br>06/12/2022<br>End Date<br>06/12/2022 | 2 1:<br>2 S    | ale<br>:25<br>heet 1 | of 1                                     |
|--|---|---|---|--|--|----------------|----------------------|--|
| SAMPLES                                | TESTS   |   | STRATA  |  |  | Denth          |                      | Install/                                 |
| Depth - Type                           | Type - Depth - Result   |   | Description   |  | Legend   | (Thickness)    | Level                | Backfill                                 |
| (ESLWW-<br>TP06-S1) 1.00               | PID(1) 1.00m <1ppm  | MADE GROUND: Greyish brown loo<br>and whole bricks. Rare Boulders and<br>Granular Made Ground           | ose very sandy GRAVEL<br>d metal fragments.             | of slag with frequent cobbles of a                           | slag   | (1.80)         |                      | Ë  =  =  =  =  =  =  =  =  =  =  =  =  = |
|  |   | MADE GROUND: Light creamish gr<br>gravel of ash and slag.<br>Granular Made Ground                       | ey loose very sandy sub                                 | p-rounded to sub-angular fine to c                           | Darse  | 1.80<br>(0.20) | 5.50                 | :   =    =    =    =    =    =    =      |
| (ESLWW-<br>TP06-S2) 2.00               | PID(2) 2.00m <1ppm  | MADE GROUND: Grey loose sandy<br>angular cobbles of slag.<br>Slag Rich Made Ground                      | rangular GRAVEL of sla                                  | g with frequent sub-rounded to su                            | ib-  | 2.00 -         | 5.30                 | =    =    =    =    =    =    =    =     |
| (ESLWW-<br>TP06-S3) 3.00               | PID(3) 3.00m <1ppm<br>PID(4) 4.00m <1ppm  |   |   |  |  | (2.30)         |                      | =    =    =    =    =    =    =    =     |
| ŤP06-S4) 4.00                          |   |   |   |  |  | 4.30           | 3.00                 |  |
| PLAN DETAIL                            | LS  | 1   | WA<br>Date/Timo   | TER OBSERVATIONS   | NIc  | INSTRUM        | ENTS                 | mACI                                     |
|  | 3.0   | 4   | Date/Time Strike  | No groundwater enco  | ountered   | 9              | туре                 | III AGL                                  |
| 1.5                                    |   | Shoring / Support:<br>Stability: Unstable, sides undercut due<br>to collapse.<br>Long Axis Orientation: | Remediation Dig Depth                                   | REMARKS<br>n to 3.509m AOD.                                  | 3  |                |                      |  |
| Unless<br>Depth<br>AGS<br>Former unter | otherwise stated:<br>(m), Diameter (mm), Time (hhmm),<br>ess (m), Level (mAOD),<br>Above Ground Level (m AGL) | Equipment Used<br><b>75 tonne exca</b> t  | vator   | Termination Depth 4.30m                                      | La   | ogged By       | Checked<br>JM        | d By                                     |

| Project<br>Teesworks<br>Client<br>STDC | s - LWW Site   |   | Project No.<br>10047374<br>Easting (OS mE)<br>457225.76          | Ground Level (mAOD)<br>7.04<br>Northing (OS mN)<br>525179.07 | Start Date<br>06/12/2022<br>End Date<br>06/12/2022 | 2 1:<br>2 S                             | :25<br>heet 1 c | of 1     |
|--|--|---|--|--|--|---|-----------------|----------|
| SAMPLES                                | TESTS  |   | STRATA   | ۱.   |  |   |                 |          |
| Depth - Type                           | Type - Depth - Result                                |   | Description  |  | Legend   | Depth<br>(Thickness)                    | Level E         | Backfill |
| (ESLWW-<br>TP07-S1) 1.00               | PID(1) 1.00m <1ppm                                   | MADE GROUND: Greyish brown loc<br>with frequent cobbles and boulders of<br>Slag Rich Made Ground    | Description<br>pse very sandy sub-rou<br>of slag and whole brick | unded to sub-angular GRAVEL of sla<br>(s.                    | g  | (2.10)                                  |                 |          |
| (ESLWW-<br>TP07-S2) 2.00               | PID(2) 2.00m <1ppm                                   |   |  |  |  | - 2.10                                  | 4.94            |          |
|  |  | MADE GROUND: Dark grey very sa<br>- cobbles of slag.<br>Granular Made Ground                        | ndy sub-rounded to su  | ib-angular GRAVEL with occasional                            |  | ¢                                       |                 |          |
|  |  | -   |  |  |  | (0.90)                                  |                 |          |
| (ESLWW-<br>TP07-S3) 3.00               | PID(3) 3.00m <1ppm                                   | Beige rounded slightly gravelly fine t<br>Gavel is rounded medium to coarse.<br>Tidal Flat Deposits | to medium SAND with  | occasional broken shell fragments.                           |  | 3.00 -                                  |                 |          |
| (ESLWW-<br>TP07-S4) 4.00               | PID(4) 4.00m <1ppm                                   |   |  |  |  | 4.50                                    |                 |          |
|  | s  |   |  |  |  | INSTRUM                                 |                 |          |
|  | 3.0  |   | Date/Time Strike   | Rest Mins Remarks  | Nam  | into into into into into into into into | Туре            | m AGL    |
| 1.5                                    | 0.0  | Shoring / Support:<br>Stability: Very unstable, collapsing in.<br>Long Axis Orientation:            | Remediation Dig Dep  | REMARKS th to 2.242m AOD.                                    | Intered  |   |                 |          |
| Unless                                 | otherwise stated:<br>(m). Diameter (mm). Time (hhmm) | Equipment Used  |  | Termination Depth  | L  | ogged By                                | Checked         | Ву       |

| Project<br>Teeswork<br>Client<br>STDC | s - LWW Site                     |   | Project No.<br>10047374<br>Easting (OS mE)<br>456676.95 | Ground Le<br>5.83<br>Northing (<br>525212 | evel (mAOD)<br>OS mN)<br><b>2.62</b>               | Start Dat<br>07/12<br>End Date<br>07/12 | te<br>/2022<br>/2022         | 50<br>1<br>S         | :25<br>heet 1   | of 1                 |
|---------------------------------------|----------------------------------|---|---|---|--|---|------------------------------|----------------------|-----------------|----------------------|
| SAMPLES                               | TESTS                            |   | STRA  | TA  |  |   |                              |                      |                 |                      |
| Depth - Type                          | Type - Depth - Result            |   | Description   |   |  | Le                                      | egend                        | Depth<br>(Thickness) | Level           | Install/<br>Backfill |
|                                       |                                  | MADE GROUND: Grass over purpl                                   | ish red fine powdered                                   | sub-rounded                               | to sub-angular GRAVEL                              | of 🔀                                    | $\times$                     | (0.10)               | -               | <u>∭≣</u> ∭          |
| (50) 100                              |                                  | <ul> <li>Coke.<br/>MADE GROUND: Grey slightly san</li> </ul>    | dy sub-rounded to su                                    | b-angular GR                              | AVEL of Coke.                                      | —Ř                                      | XX                           | 0.10 (0.10)          | 5.73            |                      |
| (ESLWW-<br>TP08-S5) 0.20              | PID(5) 0.20m <1ppm               | MADE GROUND: Brownish grey lo                                   | ose very sandy sub-re                                   | ounded to sub                             | o-angular GRAVEL with                              | Ř                                       | $\times$                     | 0.20                 | 5.63            |                      |
|                                       |                                  | Slag Rich Made Ground   |   |   |  |   | >>>>                         |                      | ł               |                      |
| (ESLWW-                               |                                  | _   |   |   |  |   | >>>                          |                      | ļ               |                      |
| TP08-S6) 0.50                         |                                  | -   |   |   |  |   | $\otimes$                    |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    |                      | ł               |                      |
|                                       |                                  | -   |   |   |  |   | ***                          |                      | ł               |                      |
| (ESLWW-<br>TP08-S1) 1.00              | PID(1) 1.00m <1ppm               | -   |   |   |  |   | $\otimes$                    |                      | ŧ               |                      |
|                                       |                                  |   |   |   |  | Ř                                       | $\otimes$                    |                      | ł               |                      |
|                                       |                                  |   |   |   |  | Ř                                       | $\sim$                       |                      | ł               |                      |
|                                       |                                  | -   |   |   |  | X                                       | $\times$                     |                      | ļ               |                      |
|                                       |                                  | -   |   |   |  |   | $\sim$                       |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    | (2.00)               | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    | (2.90)               | I               |                      |
|                                       |                                  | -   |   |   |  | 8                                       | $\otimes$                    |                      | ţ               |                      |
|                                       |                                  | 1   |   |   |  |   | $\otimes$                    |                      | ţ               |                      |
| (ESLWW-<br>TP08-S2) 2.00              | PID(2) 2.00m <1ppm               | 1   |   |   |  | Ŕ                                       | $\otimes$                    |                      | Ť               |                      |
|                                       |                                  |   |   |   |  | Ř                                       | >>>                          |                      | I               |                      |
|                                       |                                  | _   |   |   |  |   | $\times\!\!\times\!\!\times$ |                      | ļ               |                      |
|                                       |                                  | _   |   |   |  |   | $\times$                     |                      | ţ               |                      |
|                                       |                                  | -   |   |   |  |   | $\times$                     |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    |                      | ł               |                      |
|                                       |                                  | 4   |   |   |  |   | $\otimes$                    |                      | ł               |                      |
|                                       |                                  | 1   |   |   |  |   | $\otimes$                    |                      | ţ               |                      |
|                                       |                                  | 1   |   |   |  | Ř                                       | $\otimes$                    |                      | ŧ               |                      |
| (ESLWW-<br>TP08-S3) 3.00              | PID(3) 3.00m <1ppm               | 7   |   |   |  | X                                       | $\sim$                       | 3 10                 | †<br>  0.70     |                      |
|                                       |                                  | MADE GROUND: Loose greyish be<br>material                       | ige brown hydraulic f                                   | ill of silts and                          | fine sands from dredged                            | X                                       | $\times$                     | 3.10                 | 2.73            |                      |
|                                       |                                  | Tidal Flat Deposits   |   |   |  |   | $\times$                     |                      | ļ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  | 8                                       | $\otimes$                    | (1.00)               | ł               |                      |
|                                       |                                  | -   |   |   |  |   | $\otimes$                    |                      | ł               |                      |
|                                       |                                  | -   |   |   |  | Ř                                       | $\sim$                       |                      | ļ               |                      |
|                                       |                                  | 1   |   |   |  | Ř                                       | >>>>                         |                      | ļ               |                      |
| (ESLWW-1P8-<br>S4) 4.00               | PID(4) 4.00m <1ppm               | 1   |   |   |  |   | $\times$                     | 4 10                 | 1 1 73          |                      |
|                                       |                                  |   |   |   |  |   |                              | 4.10                 | 1.75            | ,<br>                |
|                                       |                                  | -   |   |   |  |   |                              |                      | ţ               |                      |
|                                       |                                  | 4   |   |   |  |   |                              |                      | ļ               |                      |
|                                       |                                  | -   |   |   |  |   |                              |                      | ŧ               |                      |
|                                       |                                  | -   |   |   |  |   |                              |                      | ł               |                      |
|                                       |                                  | -   |   |   |  |   |                              |                      | ţ               |                      |
|                                       |                                  | 1   |   |   |  |   |                              |                      | ļ               |                      |
|                                       |                                  | 1   |   |   |  |   |                              |                      | ŧ               |                      |
|                                       | <u> </u>                         |   | 1   |   |  |   |                              | INCTOUR              |                 |                      |
| PLAN DE IAI                           | LO                               |   | Date/Time Strik   | ke Rest Mi                                | ns Remarks   |   | Name                         | e                    | і≟іят S<br>Туре | m AGL                |
|                                       | 3.0                              | 4   | 06/12/2022 00:00 3.9                                    | 0   | Groundwater encountere<br>side at base of MG and a | d from<br>above                         |                              |                      |                 |                      |
|                                       |                                  | Shoring / Support:  | l   |   | TFD.   |   |                              |                      |                 |                      |
|                                       |                                  | Stability: Unstable, water entering from side causing collapse. | Remediation Dig De                                      | epth to 1.035n                            | n AOD.   |   |                              |                      |                 |                      |
| 1.5                                   |                                  | Long Axis Orientation:  | _   |   |  |   |                              |                      |                 |                      |
|                                       |                                  |   |   |   |  |   |                              |                      |                 |                      |
|                                       |                                  |   |   |   |  |   |                              |                      |                 |                      |
| Unless                                | otherwise stated:                | Equipment Used  | 1   | Terminatio                                | on Depth   |   | Lo                           | gged Bv              | Checke          | ed Bv                |
| Depth                                 | (m), Diameter (mm), Time (hhmm), | _qupmon obdu  |   |   | •  |   | 20                           |                      |                 |                      |

|                               |                      |                               |                         | AECOM  |   |  |   | Trial Pit No.  | F-TP120                          |                             |                                 |
|-------------------------------|----------------------|-------------------------------|-------------------------|--|---|--|---|--|----------------------------------|-----------------------------|---------------------------------|
|                               |                      |                               | JIVI                    | 5th Floor<br>2 City Walk<br>Leeds<br>LS11 9AR      |   | Tel: 0113 391 68<br>Fax: 0113 391 68<br>www.aecom.con  | 00<br>899<br>REGISTERED USER 2022   | Sheet: 1 of 1  |                                  |                             |                                 |
| Equ<br>Exc                    | uipment &<br>cavator | Vlethods: Tra                 | cked 14T 360            | Project Name: N<br>Project Location:<br>Client: BP | let Zero Teess<br>Redcar, Nort                                | side Onshore Groun<br>th Yorkshire   | d Investigation - Front   | End Engineering Design   | (FEED)                           | Job No:<br>60678042         | 2                               |
|                               |                      |                               |                         | Co-ordinates:<br>E: 456881.428                     |   |  | Ground Level (m):<br>7.   | 590 AOD  | Date Started: (<br>Date Complete | 06/10/2022<br>d: 06/10/2022 |                                 |
|                               | Sam                  | ples and In si                | itu Testing             | Field Becorde                                      |   |  |   |  | Reduced                          |                             | Depth<br>(Thick)                |
| 0.0                           | Depth<br>(m)         | Sample<br>Ref &<br>Type<br>FS | Test Type<br>and Result |  |   |  | DESCRIPTION   |  | (m)                              |                             | (m)                             |
| - 0.2                         | 20                   | D                             | PID = 0.1ppm            |  | MADE GF<br>silty fine to<br>fragments<br>to coarse<br>(MADE G | ROUND: Grass<br>o coarse SAND<br>s of plastic and r<br>of chert, concre<br><b>;ROUND)</b>  | over: Dark and ligr<br>with abundant roo<br>netal. Gravel is any<br>te, brick and sands   | it brown slightly grav<br>tlets and frequent<br>gular to subangular t<br>stone                                       | fine<br>7.31                     |                             | (0.28)<br>0.28                  |
| - 0.5<br>-<br>-               | 50                   | ES                            | PID = 0.0ppm            |  | MADE GF<br>abundant<br>subangula<br>(MADE G                   | ROUND: Dark g<br>fragments of m<br>ar fine to coarse<br><b>ROUND)</b>  | rey very gravelly fir<br>etal, wood and text<br>of slag, concrete a   | ne to coarse SAND v<br>ille. Gravel is angula<br>and asphalt   | with<br>r to                     |                             | *<br>*<br>*<br>*                |
| -<br>-<br>- 1.0<br>-          | 00                   |                               | PID = 0.0ppm            |  | From 0.2<br>trial pit.<br>At 0.72m                            | 8m bgl: Bricks a<br>n bgl: Metal rope  | and mortar present  | in northern half of t  | he                               |                             | *<br>*<br>*<br>*<br>*<br>*      |
| -<br>-<br>- 1.5<br>-<br>-     | 50                   | ES                            | PID = 0.0ppm            |  |   |  |   |  |                                  |                             | ×<br>×<br>×<br>×<br>×<br>×      |
| nber 2022                     | 30                   | ES                            | PID = 0.0ppm            |  |   |  |   |  |                                  |                             | (3.72)                          |
| 3.GLB    Date: 29 Nover       | 00                   | ES                            | PID = 0.0ppm            |  |   |  |   |  |                                  |                             |                                 |
| SS 4_0 LIBRARY V1             | 50                   |                               | PID = 0.0ppm            |  |   |  |   |  |                                  |                             | ×<br>×<br>×<br>×<br>×<br>×<br>× |
| NZT GI.GPJ    Library: NZT A. | 00                   |                               | PID = 0.0ppm            |  | At 4.00m<br>Orientated  | bgl: Two pipes,<br>d north east to s   | 3cm diameter. On<br>outh west.<br><b>End of Trial Pit 4</b><br>Thickness of basa<br>not proven)   | e broken, one intact.<br>. <b>00 m</b><br>I layer  | . 3.59                           |                             | 4.00                            |
| G    Project: V11.01          |                      |                               |                         |  |   |  |   |  |                                  |                             |                                 |
|                               | Groundwa<br>Strike   | ter Observati<br>Post         | ons<br>Post             | Flow   | in View   | 1. Trial Pit locate  | Remark<br>d in the Main Site area   | s<br>of Teesworks, Redcar. Lo  | ocated in the west               | of Remediation 2            | Zone                            |
| : ID: STANDARD TRIAL F        | Depth                | Mins                          | Depth                   | ~-1  | 1m→<br>B<br>C 4.4m  | PR2A, to the nor<br>brickwork.<br>2. Trial Pit termir<br>3. Topography: L<br>4. Groundwater<br>5. Slag and refra<br>olfactory evidenc<br>6. Trial Pit backfi | th of the haul road. The<br>nated at 4.00m bgl due<br>evel Ground.<br>Iot encountered during<br>ctory material encounte<br>e of contamination.<br>Iled with arisings upon | trial pit was re-orientated<br>to the presence of two pit<br>excavation.<br>red in material recovered<br>completion. | I north-south due to             | to 4.00m bgl. No            | ried                            |
| Note                          | es: For exp          | lanation of sy                | /mbols and abbrevia     | tions, see Key Sheet.                              |   | Scale: 1:25  | Log   | ged By: NS   | Checked                          | By: JW                      |                                 |

|         |                          |               |                |                   | AECOM                    |                 |                                    |                               |   | Trial Pit No.                                 | <b>F-</b> ] | FP121        |                          |                     |
|---------|--------------------------|---------------|----------------|-------------------|--------------------------|-----------------|------------------------------------|-------------------------------|---|---|-------------|--------------|--------------------------|---------------------|
|         | A=                       | .(            | .(             | JN                | 5th Floor<br>2 City Walk |                 | Tel: 0113 391<br>Fax: 0113 391     | 6800<br>6899                  | AGS   |   |             |              |                          |                     |
|         |                          |               |                |                   | Leeds<br>LS11 9AR        |                 | www.aecom.c                        | com                           | REGISTERED USER 2022                        | Sheet: 1 of 1                                 |             |              | 1                        |                     |
|         | Equipment &<br>Excavator | Metho         | ds: Tra        | icked 14T 360     | Project Name: N          | let Zero Teess  | ide Onshore Gro                    | ound Invest                   | gation - Front Er                           | nd Engineering Design                         | (FEED       | )            | Job No:                  |                     |
|         |                          |               |                |                   | Project Location:        | Redcar, Nort    | h Yorkshire                        |                               |   |   |             |              | 60678042                 | 2                   |
|         |                          |               |                |                   | Client: BP               |                 |                                    | Ground                        | ovol (m):                                   |   | Dot         | Startad: 0   | 6/10/2022                |                     |
|         |                          |               |                |                   | E: 456855.393            |                 |                                    | Giounu                        | 2ever (111).<br>8.34                        | 40 AOD  | Date        | - Completer  | 10/2022<br>1. 06/10/2022 |                     |
|         | Sar                      | nples a       | nd In si       | itu Testina       | N: 525639.131            |                 |                                    |                               |   |   | Duk         | Reduced      |                          | Depth               |
|         | Denth                    | Sa            | ample          | Test Type         | - Field Records          |                 |                                    | DE                            | SCRIPTION                                   |   |             | Level<br>(m) | Legend                   | (Thick)<br>(m)      |
|         | (m)                      | 1             | Ker &<br>Type  | and Result        |                          |                 |                                    |                               |   |   |             |              |                          | ()                  |
|         | - 0.10                   |               | D              | PID = 0.3ppm      |                          | MADE GF         | ROUND: Gras                        | ss over: E<br>rse SANI        | ark brown mo<br>D with abunda               | ottled black slightly<br>ant roots and rootle | ts          |              |                          | - (0.23)            |
|         | - 0.23- 0.72<br>- 0.30   | 0             | .72 B<br>D     |                   |                          | and occas       | sional fragmer                     | nts of pla                    | stic and textile                            | e. Gravel is angular                          | to          | 8.11         |                          | - 0.23              |
|         | -                        |               |                |                   |                          | (MADE G         | ROUND)                             |                               |   |   |             |              |                          | - (0.49)            |
|         | - 0.50                   |               | ES             | PID = 0.3ppm      |                          | MADE GF         | ROUND: Brow                        | vn mottle                     | d dark grey sli                             | ightly gravelly claye                         | ey<br>and   |              |                          |                     |
|         | 0.72- 1.20               | 1             | 1.2 B          |                   |                          | textile. Gr     | avel is angula                     | r to suba                     | ngular fine to                              | coarse of chert,                              | ana         | 7.62         |                          | - 0.72              |
|         | - 0.80                   |               | ES             |                   |                          | sandstone       | e, limestone ai<br>i <b>ROUND)</b> | nd brick                      |   |   |             |              |                          |                     |
|         | _                        |               |                |                   |                          | MADE GF         | ROUND: Light                       | t brown n                     | nottled dark b                              | rown gravelly claye                           | y fine      |              |                          | ( <sup>0.48</sup> ) |
|         | -<br>- 1.20              |               | D              | PID = 0.4ppm      |                          | to coarse       | to subrounde                       | equent p<br>ed fine to        | ckets of soft                               | dark grey clay. Gra<br>alk, concrete and      | avel        | 7.14         |                          | 1.20                |
|         | _ 1.20- 1.50             | 1             | 1.5 B          |                   |                          | limestone       |                                    |                               |   |   |             |              |                          | (0.30)              |
|         | -<br>- 1.50- 1.80        | 1             | 1.8 B          |                   |                          | MADE GF         | ROUND: Light                       | t grey ma                     | trix supported                              | I CONCRETE with                               |             | 6.84         |                          | 1.50                |
|         | -                        |               |                |                   |                          | 10mm ret        | oar. Aggregate<br>ne               | e is subai                    | ngular to subr                              | ounded fine to med                            | lium        |              |                          | 1                   |
|         | - 1.80                   |               | D              | PID = 0.8ppm      |                          | (MADE G         | ROUND)                             |                               |   |   |             |              |                          |                     |
|         | -                        |               | ES             |                   |                          | MADE GF         | ROUND: Black                       | k very gra                    | avelly fine to c                            | coarse SAND with                              | of          |              |                          |                     |
|         | -                        | 2             |                |                   |                          | metal and       | textile. Cobbl                     | es are ar                     | igular of brick                             | . Gravel is angular                           | to          |              |                          |                     |
|         | _                        |               |                |                   |                          | (MADE G         | <b>ROUND)</b>                      | se or sia                     | j, drick, ciirike                           | er and concrete                               |             |              |                          |                     |
|         | -                        |               |                |                   |                          | From 1 F        | 0m to 2 50m                        | hali Cliak                    | taulahuraua                                 | adaur natad                                   |             |              |                          |                     |
|         | <b>-</b> 2.50            |               | D              | PID = 1.0ppm      |                          |                 | 0111 10 2.5011                     | bgi. Siigi                    | it sulphurous                               | odour noted.                                  |             |              |                          |                     |
|         | _                        |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
|         | - 2.80                   |               | ES             |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| 22      | - 3.00                   |               | D              | PID = 0.1ppm      |                          |                 |                                    |                               |   |   |             |              |                          | -(3.00)             |
| er 202  | - 3.00- 3.30             |               | 5.5 6          |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| /emb    | _                        |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| 9 No    | - 3.50                   |               | D              | PID = 0.1ppm      |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| ate: 2  | -                        |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| BIID    | - 3.80                   |               | ES             |                   |                          |                 |                                    |                               |   |   |             |              |                          | $\left  \right $    |
| .3.GL   | - 4.00                   |               | D              | PID = 0.7ppm      |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| ۲V /1   | 4.00- 4.50               | 4             | 4.5 B          |                   |                          |                 |                                    |                               |   |   |             |              |                          | }                   |
| BRAF    | -                        |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          | [                   |
| 0 LI    | -                        |               |                |                   |                          |                 |                                    |                               |   |   |             | 3.84         |                          | 4 50                |
| VGS 4   | - 4.50                   |               | ט              | нD = 0.1ppm       |                          |                 |                                    |                               |   |   |             | 0.04         |                          | <u>, 1.00</u>       |
| \ZT ≠   |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| rary: I |                          |               |                |                   |                          |                 |                                    | End of<br>(Thickn             | Trial Pit 4.5<br>ess of basal I             | <b>0 m</b><br>aver                            |             |              |                          |                     |
| Lib,    |                          |               |                |                   |                          |                 |                                    |                               | not proven)                                 | y   |             |              |                          |                     |
| GPJ.    |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| 격데      |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| 1.0 N.  |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| ж: V1   |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| Projec  |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| 100     |                          |               |                |                   |                          |                 | 1                                  |                               |   |   |             |              |                          |                     |
|         | Groundw<br>Strike        | ater Ob<br>Po | servati<br>ost | ons<br>Post       | Flow Pla                 | in View         | 1. Trial Pit loca                  | ated in the                   | Remarks<br>Main Site area of                | Teesworks, Redcar. Lo                         | ocated i    | n the west c | of Remediation Z         | Zone                |
| RIAL F  | Depth                    | Mi            | ins            | Depth             |                          | B               | PR2A, to the n<br>2. Trial Pit adv | north of the<br>anced to 4    | naul road.<br>50m bgl.<br>ping to the south |   |             |              |                          |                     |
| RD TI   |                          |               |                |                   |                          |                 | 4. Groundwate<br>5. Slag and re    | er not enco<br>fractory ma    | intered during external encountere          | <br>cavation.<br>d in material recovered      | from 1      | .50m to 4.50 | )m bgl. Sulphurc         | ous                 |
| NDA     |                          |               |                |                   | A                        | c <sub>4m</sub> | odour noted in<br>6. Trial Pit bac | n material fo<br>kfilled with | m 1.50m to 2.50<br>arisings upon co         | m bgl.<br>mpletion.                           |             |              |                          |                     |
| STA     |                          |               |                |                   |                          |                 |                                    |                               |   |   |             |              |                          |                     |
| ort ID  |                          |               |                |                   |                          | ┏ ♦             |                                    |                               |   |   |             |              |                          |                     |
| Rep     | Notes: For ex            | planatio      | on of sy       | mbols and abbrevi | ations, see Key Sheet.   |                 | Scale: 1:30                        |                               | Logge                                       | ed By: NS                                     |             | Checked I    | By: JW                   |                     |

|                | ΛΞ                        |                |                         | AECOM   |                         | Tel: 0113 301 6800  |   | Trial Pit No.                             | F-TI         | P115                    |                            |                  |
|----------------|---------------------------|----------------|-------------------------|---|-------------------------|---|---|---|--------------|-------------------------|----------------------------|------------------|
|                |                           |                | JIVI                    | 2 City Walk<br>Leeds                            |                         | Fax: 0113 391 6899<br>www.aecom.com                               | AGS   | Sheet 1 of 1                              |              |                         |                            |                  |
| ŀ              | Equipment & N             | Methods: Tra   | cked 22T 360            | LS11 9AR<br>Project Name: N                     | let Zero Teess          | side Onshore Ground I   | registered user 2022                              | nd Engineering Design                     | (FEED)       |                         | Job No:                    |                  |
|                | Excavator                 |                |                         | Project Location:                               | Redcar, Nort            | h Yorkshire   | -   |   |              |                         | 6067804                    | 12               |
|                |                           |                |                         | Client: BP                                      |                         |   |   |   |              |                         |                            |                  |
|                |                           |                |                         | Co-ordinates:<br>E: 456823.795<br>N: 525461.784 |                         | Gro   | ound Level (m):<br>7.26                           | 68 AOD                                    | Date S       | Started: 2<br>Completed | 7/09/2022<br>d: 27/09/2022 |                  |
| Ē              | Samp                      | ples and In si | itu Testing             | Field Records                                   |                         | I   |   |   | F            | Reduced<br>Level        |                            | Depth<br>(Thick) |
|                | Depth<br>(m)              | Ref &<br>Type  | Test Type<br>and Result |   |                         |   | DESCRIPTION                                       |   |              | (m)                     |                            | (m)              |
| -              |                           |                |                         |   | MADE GF                 | ROUND: Dark gre <u>:</u><br>; <b>ROUND)</b>                       | / and black ASPH                                  | ALT                                       | r            | 7.17                    |                            | (0.10)           |
| ŀ              | 0.20- 0.50<br><b>0.30</b> | B<br>D<br>FS   | PID = 0.8ppm            |   | MADE GF                 | ROUND: Greenish<br>ar fine to coarse G                            | grey mottled grey<br>RAVEL of sandst              | v sandy angular to<br>one, brick and slag | ,            | 7.07                    |                            |                  |
| ļ              | - 0.50- 1.00              | В              |                         |   | MADE GF                 | ROUND: Dark brow<br>h low cobble conte                            | wn and dark grey ant. Cobbles are a               | silty gravelly coarse                     | e<br>ivel is |                         |                            | \$               |
|                |                           |                |                         |   | angular to              | subangular fine to  | coarse of slag a                                  | nd brick. Sand is c                       | oarse        |                         |                            | 8                |
|                | 0.80                      | D              | PID = 1.1ppm            |   |                         | iround)   |   |   |              |                         |                            | (1.30)           |
| +              | -                         |                |                         |   |                         |   |   |   |              |                         |                            | }-               |
| F              |                           |                |                         |   |                         |   |   |   |              |                         |                            | \$               |
|                | 1.30                      | D              | PID = 0.9ppm            |   |                         |   |   |   |              |                         |                            | \$               |
| +              | - 1.50- 2.00<br>1.50      | B<br>ES        |                         |   | MADE GF                 | ROUND: Brown ve   | ry sandy angular                                  | to subangular fine                        | to           | 5.77                    |                            | 1.50             |
|                |                           |                |                         |   | coarse GF<br>content. C | RAVEL of slag, bri<br>Cobbles are angula                          | ck, metal and clin<br>Ir of slag and brick        | ker with low cobble<br>c. Assessed as ver | y            |                         |                            | X                |
| ł              | 1.80                      | D              | PID = 1.6ppm            |   | dense<br>(MADE G        | ROUND)  | -   |   | -            |                         |                            | ł                |
| +              | - 2.00- 2.50              | В              |                         |   |                         |   |   |   |              |                         |                            | (1.00)           |
|                |                           |                |                         |   |                         |   |   |   |              |                         |                            | \$               |
|                | 2.30                      | D<br>ES        | PID = 1.5ppm            |   |                         |   |   |   |              |                         |                            | ₹                |
| 2              | _                         |                |                         |   |                         |   |   |   |              | 4.77                    |                            | 2.50             |
| ber 202        |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| lovem          |                           |                |                         |   |                         | Er  | d of Trial Pit 2.5                                | 0 m                                       |              |                         |                            |                  |
| e: 29 N        |                           |                |                         |   |                         | (Th   | ickness of basal l<br>not proven)                 | ayer                                      |              |                         |                            |                  |
| Date           |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| 3.GLB          |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| Y V1.3         |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| BRAR           |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| 4_0 LI         |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| AGS            |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| y: NZT         |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| Librar         |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| II LdS         |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| <u>77 GI.(</u> |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| 1.0 NZ         |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| ect: V1        |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| ll Proj        |                           |                |                         |   |                         |   |   |   |              |                         |                            |                  |
| I LOG          | Groundwat                 | ter Observati  | ons                     | Pla   | In View                 | 4.7.4.00  | Remarks   |   | l            | 41                      | -(D- ""                    | . 7.             |
| AL PI          | Strike<br>Depth           | Post<br>Mins   | Post<br>Depth           | +low -  | Im                      | 1. Irial Pit located in<br>PR2B.<br>2. Trial Pit refused a        | n the Main Site area of<br>t 2.50m bgl, on hard s | r reesworks, Redcar. Lo<br>tratum.        | ocated in    | tne south               | ot Remediation             | n ∠one           |
| RD TRI         |                           |                |                         |   | <u>в</u>                | 3. Topography: Leve<br>4. Groundwater not<br>5. Slag and refrects | el Ground.<br>encountered during ex               | cavation.                                 | from are     | und level f             | 0 2 50m hal 1              | lo               |
| NDAF           |                           |                |                         | А   | C 3.8m                  | olfactory evidence of 6. Trial Pit backfilled                     | f contamination.<br>I with arisings upon co       | mpletion.                                 | nom gro      |                         | o 2.Juni byl. N            |                  |
| D: STA         |                           |                |                         |   |                         |   | - •   |   |              |                         |                            |                  |
| eport          | Notes: For over           | lanation of ou | mbols and abbrovia      | tions see Key Short                             |                         | Scale: 1.25   | Logo  | ed By: RM                                 |              | Checked                 | Bv: .IW                    |                  |
| ۳L             | NUCES. FUI EXPI           | anadon OI Sy   | ninone and addievia     | uono, oce ney oneel.                            |                         | Juane: 1.20   | Logge   | Ju Dy. 13191                              | [            |                         | y. 0 ۷ ۷                   |                  |

| Λ  |                                    |                              | AECOM  | Trial Pit No. F   |  |   |                                       |   |                                |                                  |
|--|------------------------------------|------------------------------|--|---|--|---|---------------------------------------|---|--------------------------------|----------------------------------|
| A  |                                    | JIVI                         | 5th Floor<br>2 City Walk<br>Leeds<br>LS11 9AR      |   | Tel: 0113 391 6<br>Fax: 0113 391<br>www.aecom.co   | 6899<br>om registered use   | S<br>2022                             | Sheet: 1 of 1   |                                |                                  |
| Equipment<br>Excavator                                   | & Methods: Tra                     | acked 22T 360                | Project Name: N<br>Project Location:<br>Client: BP | et Zero Teessi<br>Redcar, North   | de Onshore Grou<br>Yorkshire   | und Investigation - F   | ront Er                               | nd Engineering Design   | (FEED)                         | Job No:<br>60678042              |
|  |                                    |                              | Co-ordinates:<br>E: 456905.451<br>N: 525436 703    |   |  | Ground Level (m):   | 7.47                                  | 76 AOD  | Date Started:<br>Date Complete | 06/10/2022<br>ed: 07/10/2022     |
| Sa<br>Depth  | amples and In s<br>Sample<br>Ref & | itu Testing<br>Test Type     | - Field Records                                    |   |  | DESCRIPTI   | ON                                    |   | Reduced<br>Level<br>(m)        | Legend Depth<br>(Thick)<br>(m)   |
| (m)<br>-<br>- 0.20- 0.50<br>- 0.20<br>- 0.30             | B<br>ES<br>D                       | PID = 1.2ppm                 |  | MADE GR<br>10mm reb<br>sandstone<br>(MADE GR  | COUND: Pale<br>ar. Aggregate<br>and igneous<br><b>ROUND</b> : Grevi  | yellow matrix su<br>is angular to su<br>rock<br>sh brown gravel   | pporte<br>bangu                       | d CONCRETE wit<br>lar fine to medium  | h<br>of 7.28                   | (0.20)<br>0.20<br>(0.30)<br>0.50 |
| -<br>-<br>- 0.80<br>-<br>-<br>-<br>-                     | D<br>ES                            | PID = 1.6ppm                 |  | Gravel is s<br>(MADE GR<br>N.B. Bene<br>MADE GR<br>medium cc<br>subangula<br>(MADE GR | aubangular to<br>ROUND)<br>eath the concr<br>COUND: Dark<br>obble content.<br>r to subround<br>ROUND)<br>ROUND: Light            | subrounded fine<br>rete is a thin blac<br>brown gravelly f<br>Cobbles are su<br>ed fine to coarse<br>grey subrounde           | k plas<br>ine to<br>broun<br>e of sla | arse of brick and s<br>stic liner.<br>coarse SAND with<br>ded of slag. Gravel<br>ag<br>ubangular medium | is 6.28                        | (0.70)<br>1.20<br>(0.20)         |
| -<br>- 1.50<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | ES                                 | PID = 0.9ppm                 |  | Coarse GR<br>subrounde<br>(MADE GF<br>MADE GR<br>medium cc<br>subangula<br>(MADE GF   | AVEL of slag<br>round)<br>OUND: Dark<br>obble content.<br>r to subround<br>ROUND)  | brown gravelly f<br>Cobbles subrou<br>ed fine to coarse   | ine to<br>inded<br>of sla             | coarse SAND with<br>of slag. Gravel is  |                                |                                  |
| - 2.50<br>   | ES                                 | PID = 0.7ppm<br>PID = 0.5ppm |  |   |  |   |                                       |   |                                |                                  |
| * - 4.10<br>- 4.10<br>- 4.50                             | ES                                 | PID = 4.4ppm<br>PID = 0.1ppm |  |   |  |   |                                       |   | 2.98                           | 4.50                             |
| G    Froject: V 11.0 NZ1 Shuary IL Lunary. NZ1 A00       |                                    |                              |  |   |  | End of Trial P<br>(Thickness of t<br>not prov   | <b>Pit 4.5</b><br>Dasal I<br>en)      | <b>0 m</b><br>ayer  |                                |                                  |
| Ground   | water Observat                     | ions<br>Post                 | Pla  | n View  | 1. Trial Pit loca  | Re<br>ted in the Main Site  | marks<br>area of                      | Teesworks, Redcar Lo  | cated in the centr             | e of Remediation                 |
|  | Mins                               | Depth                        |  | m→<br>B<br>C 3.8m   | 2 Jone PR 16L<br>2. Trial Pit adva<br>3. Topography:<br>4. Groundwate<br>5. Slag and ref<br>evidence of coi<br>6. Trial Pit back | anced to 4.50m bgl.<br>Level Ground.<br>root encountered du<br>ractory material enco<br>tamination.<br>filled with arisings u | uring ex<br>ountere                   | cavation.<br>d in material recovered  | from 0.20m to 4.5              | 0m bgl. No olfactory             |
| Notes: For e   | explanation of s                   | ymbols and abbreviat         | ions, see Key Sheet.                               |   | Scale: 1:30  |   | Logge                                 | ed By: HR   | Checked                        | By: JW                           |

|   | ΛΞ                                  |                                      |                        | AECOM  |   |  |   | Trial Pit No.   | F-                 | TP117                       |                                 |                         |
|---|-------------------------------------|--------------------------------------|------------------------|--|---|--|---|---|--------------------|-----------------------------|---------------------------------|-------------------------|
|   | A=                                  |                                      |                        | 5th Floor<br>2 City Walk<br>Leeds<br>LS11 9AR      |   | Tel: 0113 391 68<br>Fax: 0113 391 68<br>www.aecom.com  | 00<br>399<br>REGISTERED USER 2022   | Sheet: 1 of 1   |                    |                             |                                 |                         |
|   | Equipment &<br>Excavator            | Methods: Track                       | ked 22T 360            | Project Name: N<br>Project Location:<br>Client: BP | et Zero Teess<br>Redcar, Nort   | side Onshore Groun<br>h Yorkshire  | d Investigation - Front Er  | nd Engineering Design   | (FEEC              | ))                          | Job No:<br>60678042             |                         |
|   |                                     |                                      |                        | Co-ordinates:<br>E: 456931.072                     |   |  | Ground Level (m):<br>7.20   | 04 AOD  | Dat<br>Dat         | e Started: 2<br>e Completed | 1<br>7/09/2022<br>1: 27/09/2022 |                         |
|   | San<br>Depth                        | nples and In situ<br>Sample<br>Ref & | Testing                | - Field Records                                    |   | I  | DESCRIPTION   |   | 1                  | Reduced<br>Level<br>(m)     | Legend                          | Depth<br>(Thick)<br>(m) |
|   | (m)<br>-                            | Type                                 | and Result             |  |   | ROUND: Dark g  | rey and black ASPH  | ALT   |                    | 7.10                        |                                 | - (8:18)                |
|   | - <b>0.20</b><br>- 0.30- 0.80       | D<br>ES<br>B                         |                        |  | MADE GF<br>coarse GF  | ROUND: Grey s<br>RAVEL of slag a   | lightly sandy angular<br>and concrete. Sand is  | to subangular fine<br>s coarse  | e to               | 6.90                        |                                 | - (0.20)<br>_ 0.30      |
|   | -<br>0.50<br>-<br>-                 | D<br>ES                              |                        |  | MADE G<br>MADE GF<br>coarse SA<br>slag and b<br>brick, clini<br>(MADE G | ROUND: Dark g<br>AND with mediul<br>prick. Gravel is a<br>ker and metal<br><b>ROUND)</b>   | rey mottled dark bro<br>m cobble content. C<br>angular to subangula   | wn silty very gravel<br>obbles are angular<br>r fine to coarse of             | lly<br>of<br>slag, | J                           |                                 | -<br>-<br>-<br>- (1 10) |
|   | -<br><b>1.00-</b> 1.50<br>1.00<br>- | B<br>D                               |                        |  |   |  |   |   |                    |                             |                                 | - (1.10)<br>            |
|   | -<br>- 1.50<br>-<br>-<br>-          | D<br>ES                              |                        |  | MADE GF<br>subangula<br>high cobb<br>angular of<br>(MADE G              | ROUND: Grey a<br>ar fine to coarse<br>le content and c<br>f brick, slag and<br>iROUND)   | nd brown slightly sar<br>GRAVEL of slag, br<br>occasional fragments<br>conrete. Sand is coa   | ndy angular to<br>ick and clinker witl<br>of metal. Cobbles<br>arse           | h<br>are           | _ 5.80                      |                                 | _ 1.40<br><br>-<br>-    |
|   | - <b>2.00-</b> 2.50<br>_ 2.00<br>   | B<br>D                               |                        |  |   |  |   |   |                    |                             |                                 | -<br>-<br>-<br>-        |
| 29 November 2022  | — 2.50<br>-<br>-                    | D<br>ES                              |                        |  |   |  |   |   |                    | _ 4.35                      |                                 | -<br>-<br>2.85          |
| RY V1.3.GLB    Date:  |                                     |                                      |                        |  |   | (  | End of Trial Pit 2.8<br>Thickness of basal I<br>not proven)   | <b>5 m</b><br>ayer  |                    |                             |                                 |                         |
| 0G    Project: V11.0 NZT GI.GPJ    Library: NZT AGS 4_0 LIBRA |                                     |                                      |                        |  |   |  |   |   |                    |                             |                                 |                         |
| - PIT LO  | Groundwa<br>Strike<br>Depth         | ater Observatior<br>Post<br>Mins     | Post<br>Depth          | Flow -1  | n View  | 1. Trial Pit locate<br>Zone PR1B.  | Remarks<br>d in the Main Site area of   | Teesworks, Redcar. Lo   | ocated             | in the centre               | of Remediation                  |                         |
| rt ID: STANDARD TRIAL   | p u .                               |                                      |                        |  | C 3.9m  | <ol> <li>Trial Pit termin</li> <li>Topography: L</li> <li>Groundwater T</li> <li>Slag and refra<br/>olfactory evidenc</li> <li>Trial Pit backfi</li> </ol> | ated at 2.85m bgl due to<br>evel Ground.<br>not encountered during ex<br>ctory material encountere<br>e of contamination.<br>Iled with arisings upon co | unstable pit sidewalls.<br>ccavation.<br>d in material recovered<br>mpletion. | from g             | round level t               | o 2.85m bgl. No                 |                         |
| Repo.   | Notes: For exp                      | planation of sym                     | l<br>bols and abbrevia | tions, see Key Sheet.                              |   | Scale: 1:25  | Logge   | ed By: HR   |                    | Checked E                   | By: JW                          |                         |

|                  |                      |                 |                    | AECOM   |               |   |   |           | Trial Pit No.           | F-1    | TP112         |                                       |                |
|------------------|----------------------|-----------------|--------------------|---|---------------|---|---|-----------|-------------------------|--------|---------------|---------------------------------------|----------------|
|                  | A=                   |                 | JIVI               | 5th Floor<br>2 City Walk<br>Leeds<br>LS11 9AR |               | Tel: 0113 391 68<br>Fax: 0113 391 68<br>www.aecom.con | 00<br>899<br>Registered user              | S<br>2022 | Sheet: 1 of 1           |        |               |                                       |                |
| F                | Equipment & I        | Methods: Tra    | cked 22T 360       | Project Name: N                               | et Zero Teess | side Onshore Groun                                    | d Investigation - F                       | ront En   | d Engineering Design    | (FEED  | )             | Job No:                               |                |
|                  | Excavator            |                 |                    | Project Location:                             | Redcar, Nort  | th Yorkshire  |   |           |                         |        |               | 6067804                               | 2              |
|                  |                      |                 |                    | Client: BP                                    |               |   | Cround Lovel (m);                         |           |                         | Det    | o Stortodi 1  | 00/2022                               |                |
|                  |                      |                 |                    | E: 456905.844                                 |               |   | Siound Level (m).                         | 7.86      | 1 AOD                   | Dat    | e Complete    | d: 26/09/2022                         |                |
| $\vdash$         | Sam                  | ples and In si  | tu Testing         | N: 525356.093                                 |               |   |   |           |                         |        | Reduced       |                                       | Depth          |
|                  | Depth                | Sample<br>Ref & | Test Type          | <ul> <li>Field Records</li> </ul>             |               |   | DESCRIPTIC                                | NC        |                         |        | (m)           | Legend                                | (Thick)<br>(m) |
| $\left  \right $ | (m)                  | Туре            | and Result         |   |               | ROUND: Dark g   | rev mottled bla                           | ck silt   | v verv gravellv fine    | to     | 7.81          | ××××                                  | (0:05)         |
| F                | 0.10- 0.50           | в               |                    |   | coarse SA     | AND with mediu  | m cobble conte                            | ent. Co   | bbles are angular       | of     |               |                                       | X              |
| E                | 0.30                 | D<br>ES         | PID = 0.5ppm       |   | brick, clin   | ker and metal fr                                      | agments                                   | Ingula    |                         | siay,  |               |                                       | ł              |
| -                | - 0.50- 1.00         | В               |                    |   | (MADE G       | ROUND: Grev n   | ottled dark are                           | w eliat   | ntly sandy angular      | to     |               |                                       | ¥-             |
| ŀ                | 0.60                 | D               | PID = 0.8ppm       |   | subangula     | ar fine to coarse                                     | GRAVEL of sl                              | ag an     | d brick with mediu      | m      |               |                                       | X              |
| +                |                      |                 |                    |   | (MADE G       | ntent. Cobbles d<br>GROUND)                           | of angular slag                           | and bi    | rick. Sand is coars     | е      |               |                                       | }              |
| þ                | - 100                | р               | PID = 1 2ppm       |   |               |   |   |           |                         |        |               |                                       | Ł              |
|                  |                      | ËS              |                    |   |               |   |   |           |                         |        |               |                                       | 8              |
|                  | 1.20- 1.70           | В               |                    |   |               |   |   |           |                         |        |               |                                       | (2.35)         |
|                  |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       | }              |
| ļ                | - 1.50               | D               | PID = 1.8ppm       |   |               |   |   |           |                         |        |               |                                       | 7              |
|                  |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       | ł              |
|                  |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       | X              |
| ł                | - 2.00-2.50          | B               | PID = 1.1ppm       |   |               |   |   |           |                         |        |               |                                       | }-             |
|                  | 2.00                 | ËS              |                    |   |               |   |   |           |                         |        |               |                                       | X              |
| F                |                      |                 |                    |   |               |   |   |           |                         |        | 5.46          |                                       | 2.40           |
|                  | - 2.50               | D               | PID = 1.1ppm       |   | Light brov    | vn mottled brow                                       | n slightly grave                          | elly fine | e to medium slight      | у      |               |                                       |                |
|                  |                      |                 |                    |   | SILY SAIN     | D. Graver is ang                                      |   | ided o    | r siag and film         |        |               | · · · · ·                             | ł              |
|                  |                      |                 |                    |   | N.B. Slag     | inclusion is fror<br>Itamination from                 | n possibly rewo<br>pit collapse.          | orked     | ground or               |        |               |                                       | ·              |
| t                | - 300-350            | в               | PID = 0.8ppm       |   | (TIDAL F      | LAT DEPOSITS  | s) .                                      |           |                         |        |               |                                       | ,È             |
| 2022             | 3.00                 | D<br>FS         | 1 ID - 0.0ppm      |   |               |   |   |           |                         |        |               | · · · · · ·                           | }              |
| nber             | 3.30                 | ES              |                    |   |               |   |   |           |                         |        |               | · · · · · · · · · · · · · · · · · · · | , <u></u>      |
| Nove             |                      |                 |                    |   |               |   |   |           |                         |        |               | ·                                     | (2 12)         |
| e: 29            | - 3.50- 4.00         | В               |                    |   |               |   |   |           |                         |        |               |                                       | , <b>_</b> ()  |
| Dat              | 3.70                 | D<br>FS         | PID = 1.5ppm       |   |               |   |   |           |                         |        |               |                                       | <u> </u>       |
| GLB              |                      |                 |                    |   |               |   |   |           |                         |        |               | · · · · · · ·                         | <u></u>        |
| <1.3.            | - 4.00- 4.50<br>4.00 | B<br>ES         |                    |   |               |   |   |           |                         |        |               | · · · · · ·                           | ,E             |
| <b>MRY</b>       | 4.20- 4.50           | в               |                    |   | From 4.0      | 00m bgl: Become                                       | es very gravelly                          | <i>.</i>  |                         |        |               | · · · · · ·                           | }              |
| EIE E            | 4.30                 | D               | PID = 1.0ppm       |   |               |   |   |           |                         |        |               | · • · · · · · •                       | , <u>†</u>     |
| S 4 0            | -                    |                 |                    |   |               |   |   |           |                         |        | 3.34          | · · · · a · · ·                       | <b>-</b> 4.52  |
| TAG              |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       |                |
| y: NZ            |                      |                 |                    |   |               |   | End of Trial P                            | it 4.52   | 2 m                     |        |               |                                       |                |
| Librar           |                      |                 |                    |   |               | (   | Thickness of b                            | asal la   | ayer                    |        |               |                                       |                |
| ll Ld            |                      |                 |                    |   |               |   |   | <i>j</i>  |                         |        |               |                                       |                |
| GI.G             |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       |                |
| IZN C            |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       |                |
| V11.             |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       |                |
| oject:           |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       |                |
| I D              |                      |                 |                    |   |               |   |   |           |                         |        |               |                                       |                |
| TLO              | Groundwa             | ter Observati   | ons<br>Doct        | - Pla   | n View        | 1 Trial Dit looste                                    | Rer                                       | marks     | Teesworks Podeor La     | ncated | in the south  | of Remediation                        | Zone           |
| AL PI            | Depth                | Mins            | Depth              | - 10WV  | m <b></b> -   | PR1B.<br>2. Trial Pit advan                           | ced to 4.52m bal                          | ured Of   | TOOSWOINS, NEUCAL LC    | Joalea | ເມຣ ຣບແທ      |                                       | 20110          |
| D TRI            |                      |                 |                    |   | ▶             | 3. Topography: L<br>4. Groundwater r                  | evel Ground.<br>ot encountered du         | ıring ex  | cavation.               | ,      |               |                                       |                |
| DAR              |                      |                 |                    | А   | C 3.9m        | 5. Slag and refra<br>olfactory evidence               | ctory material enco<br>e of contamination | ountered  | a in material recovered | trom g | round level 1 | to 4.52m bgl. N                       | 0              |
| STAN             |                      |                 |                    |   |               |   | ica with ansings u                        | 1001 CO   |                         |        |               |                                       |                |
| Ë                |                      |                 |                    |   | I             |   |   |           |                         |        |               |                                       |                |
| Repo             | Notes: For exp       | lanation of sy  | mbols and abbrevia | ions, see Key Sheet.                          |               | Scale: 1:30   |   | Logge     | d By: JP                |        | Checked       | By: JW                                |                |

|        | ΛΞ                        |                         |                         | AECOM                             |               |   |   | Trial Pit No.                          | F-T      | P113         |                   |                    |
|--------|---------------------------|-------------------------|-------------------------|-----------------------------------|---------------|---|---|--|----------|--------------|-------------------|--------------------|
| 1      | A=                        |                         | JN                      | 5th Floor<br>2 City Walk<br>Leeds |               | Tel: 0113 391 6800<br>Fax: 0113 391 6899<br>www.aecom.com | AGS   | Sheet: 1 of 1                          |          |              |                   |                    |
|        | Equipment & N             | /lethods: Tra           | icked 22T 360           | Project Name: N                   | et Zero Teess | ide Onshore Ground Inv                                    | estigation - Front E                        | I<br>nd Engineering Design             | (FEED)   |              | Job No:           |                    |
|        | Excavator                 |                         |                         | Project Location:                 | Redcar, Nort  | h Yorkshire   | ·   |  | . ,      |              | 60678042          |                    |
|        |                           |                         |                         | Client: BP                        |               |   |   |  |          |              |                   |                    |
|        |                           |                         |                         | Co-ordinates:                     |               | Grour   | nd Level (m):                               |  | Date     | Started: 2   | 3/09/2022         |                    |
|        |                           |                         |                         | E: 456931.524<br>N: 525332.271    |               |   | 7.2   | 82 AOD                                 | Date     | Completed    | d: 23/09/2022     |                    |
|        | Samp                      | oles and In s           | itu Testing             | Field Beeerde                     |               | I   |   |  |          | Reduced      |                   | Depth<br>(Thick)   |
|        | Depth<br>(m)              | Sample<br>Ref &<br>Type | Test Type<br>and Result | Field Recolds                     |               |   | DESCRIPTION                                 |  |          | (m)          | Legend            | (m)                |
| F      |                           |                         |                         |                                   | MADE GF       | ROUND: Dark grey r  | nottled black AS                            | SPHALT                                 | ſ        | 7.23         |                   | - ( <u>0:05</u> )  |
| -      | <b>0.20</b><br>0.30- 0.70 | D<br>ES<br>B            | PID = 0.2ppm            |                                   | MADE G        | ROUND)<br>ROUND: Greenish g<br>ar fine to coarse GR       | rey mottled grey                            | y sandy angular to                     |          | 6.98         |                   | _ (0.25)<br>_ 0.30 |
| Ē      | - 0.50                    | D                       | PID = 0.4ppm            |                                   | (MADE G       | ROUND)  |   | one, blick and slag                    |          |              |                   | -                  |
| +      |                           | ES                      |                         |                                   | MADE GF       | ROUND: Grey mottle  | ed dark grey slig                           | htly sandy angular                     | to       |              |                   | -                  |
| Ľ      | 0.70- 1.20                | В                       |                         |                                   | content. C    | Cobbles are angular                                       | of slag. Sand is                            | coarse                                 |          |              |                   | -                  |
| -      |                           |                         |                         |                                   | (MADE G       | ROUND)  |   |  |          |              |                   | -                  |
| F      | - 1.00                    | D                       | PID = 1.6ppm            |                                   |               |   |   |  |          |              |                   | $\vdash$           |
| Ē      |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| F      |                           |                         |                         |                                   |               |   |   |  |          |              |                   | (2 10)             |
| E      | - 150 200                 |                         |                         |                                   |               |   |   |  |          |              |                   | - (2.10)           |
| F      | 1.50                      | D                       | PID – 0.0ppm            |                                   |               |   |   |  |          |              |                   | F                  |
| ŀ      |                           |                         |                         |                                   |               |   |   |  |          |              |                   | -                  |
| Ē      |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| H      | - 2.00                    | D                       | PID = 0.6ppm            |                                   |               |   |   |  |          |              |                   | -                  |
| F      |                           |                         |                         |                                   |               |   |   |  |          |              |                   | -                  |
| F      |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| +      |                           |                         |                         |                                   |               |   |   | to subangular fina f                   | to       | 4.88         |                   | _ 2.40             |
| Ľ      | - 2.50- 3.00<br>2.50      | B                       | PID = 0.7ppm            |                                   | coarse GF     | RAVEL of slag, brick                                      | , metal and clin                            | ker with low cobble                    |          |              |                   |                    |
| F      |                           | ES                      |                         |                                   | Content. C    | Cobbles are angular                                       | of slag and bric                            | k                                      |          |              |                   | -                  |
| F      |                           |                         |                         |                                   |               | (COND)  |   |  |          |              |                   | -                  |
| Ē      | - 300                     |                         | PID = 1 2ppm            |                                   |               |   |   |  |          |              |                   | - (1.00)           |
| 2022   | 0.00                      |                         |                         |                                   |               |   |   |  |          |              |                   | -                  |
| her    | 2 20                      | ES                      |                         |                                   |               |   |   |  |          |              |                   | -                  |
| oven   | 5.50                      |                         |                         |                                   |               |   |   |  |          | 3.88         |                   | 3.40               |
| 29 N   | - 3.50- 4.00              | B                       | PID = 0.8ppm            |                                   | Gravel is a   | n mottled brown slig                                      | ghtly gravelly fin<br>ed of slag and f      | ie to medium SANL<br>Ilint             | ).       |              |                   | -                  |
| Date:  | 5.50                      | ES                      |                         |                                   |               |   |   |  |          |              |                   | -                  |
|        |                           |                         |                         |                                   | cross-con     | tamination is from po                                     | ssibly reworked                             | grouna or                              |          |              |                   | - (0.80)           |
| 3.GL   | - 400                     |                         | PID = 1 1ppm            |                                   | (TIDAL F      | LAT DEPOSITS  |   |  |          |              |                   | -                  |
| 5      | - 4.00                    | ES                      | FID = 1. Ippin          |                                   |               |   |   |  |          |              |                   | -                  |
| RAR    | 4.20- 4.50                | В                       |                         |                                   | Light brow    | In fine to medium S                                       |   |  |          | 3.08         |                   | _ 4.20             |
|        |                           |                         |                         |                                   | (TIDAL F      | LAT DEPOSITS)   |   |  |          |              |                   | (0.35)             |
| S 4_C  | - 4.50                    | D                       | PID = 1.5ppm            |                                   |               |   |   |  |          | 2.73         | · · · · · · · · · | 4.55               |
| T AG   |                           | ES                      |                         |                                   |               |   |   |  |          | -            |                   |                    |
| LZN :  |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| orary  |                           |                         |                         |                                   |               | End   | of Trial Pit 4.5                            | 55 m                                   |          |              |                   |                    |
|        |                           |                         |                         |                                   |               | ( i nic   | not proven)                                 | ayei                                   |          |              |                   |                    |
| GPJ    |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| T GI   |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| .0 N.  |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| · 111  |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| oject  |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| II Pr  |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| ÖL     | Groundwate                | er Observati            | ons                     | Pla                               | n View        |   | Remarks                                     |  |          |              |                   |                    |
| LPIT   | Strike<br>Depth           | Post<br>Mins            | Post<br>Depth           | Flow -1.                          | 1m-+          | 1. Trial Pit located in the PR1B.                         | ne Main Site area o                         | f Teesworks, Redcar. Lo                | cated in | the south    | of Remediation    | Zone               |
| TRIA   |                           |                         |                         |                                   | <u>₃</u> ♦    | 2. Trial Pit advanced to<br>3. Topography: Level 0        | o 4.55m bgl.<br>Ground.                     |  |          |              |                   |                    |
| 'RD'   |                           |                         |                         |                                   |               | 4. Groundwater not en<br>5. Slag and refractory           | countered during ex<br>material encountered | xcavation.<br>ed in material recovered | from gro | ound level t | o 4.20m bgl. No   |                    |
| AND/   |                           |                         |                         | A                                 | C 4m          | 6. Trial Pit backfilled w                                 | vith arisings upon co                       | ompletion.                             |          |              |                   |                    |
| ): ST/ |                           |                         |                         |                                   |               |   |   |  |          |              |                   |                    |
| ort IC |                           |                         |                         |                                   | , +           |   |   |  |          |              |                   |                    |
| Rep    | Notes: For expla          | anation of sy           | mbols and abbreviat     | ions, see Key Sheet.              |               | Scale: 1:30   | Logg  | ed By: RM                              |          | Checked E    | By: JW            |                    |

|             |                        | ~                       |                         | AECOM                             |                     |  |                                       |                        | Trial Pit No.                     | F-     | TP114         |                |                |
|-------------|------------------------|-------------------------|-------------------------|-----------------------------------|---------------------|--|---------------------------------------|------------------------|-----------------------------------|--------|---------------|----------------|----------------|
|             | A                      |                         | JIVI                    | 5th Floor<br>2 City Walk<br>Leeds |                     | Tel: 0113 391 6800<br>Fax: 0113 391 6899<br>www.aecom.com              | AGS                                   | S                      | Sheet 1 of 1                      |        |               |                |                |
|             | Equipment & Me         | ethods: Tra             | acked 22T 360           | LS11 9AR<br>Project Name: N       | et Zero Teess       | ide Onshore Ground Ir  | REGISTERED USER                       | ront End               | Engineering Design                | (FEED  | ))            | Job No:        |                |
|             | Excavator              |                         |                         | Project Location:                 | Redcar, Nort        | h Yorkshire  | Ū                                     |                        |                                   |        | ,             | 606780         | 42             |
|             |                        |                         |                         | Client: BP                        |                     |  |                                       |                        |                                   | -      |               |                |                |
|             |                        |                         |                         | Co-ordinates:<br>E: 456958.658    |                     | Gro  | und Level (m):                        | 7.668                  | AOD                               | Dat    | e Started: 2  | 2/09/2022      |                |
|             | Sample                 | es and In s             | itu Testina             | N: 525296.290                     |                     |  |                                       |                        |                                   | Dau    | Reduced       | u. 22/09/2022  | Depth          |
|             | Depth<br>(m)           | Sample<br>Ref &<br>Type | Test Type<br>and Result | Field Records                     |                     |  | DESCRIPTIC                            | NC                     |                                   |        | Level<br>(m)  | Legend         | (Thick)<br>(m) |
|             | - 0.10- 0.40           | В                       |                         |                                   | MADE GF             | ROUND: Dark brov<br>h medium cobble o                                  | n mottled re                          | eddish b               | prown gravelly co<br>e angular to | arse   |               |                | X-             |
|             | -<br>- 0.30            | D                       | PID = 0.2ppm            |                                   | subangula coarse of | ar of slag and brick slag. Sand is coars                               | . Gravel is a se. Assessed            | ngular t<br>d as der   | o subangular fin                  | e to   | 7.07          |                | × - (0.40)     |
|             | -                      | ES                      |                         |                                   |                     | ROUND)   | are and ar                            | ov oond                | v opgulor to                      |        | / . <i>21</i> |                | 0.40<br>(0.25) |
|             | - 0.60                 | D                       | PID = 0.5ppm            |                                   | subangula           | ar fine to coarse Gl   | RAVEL of sla                          | ey sand<br>ag, bricl   | k and clinker                     |        | 7.02          |                | 0.65           |
|             | - 0.70- 1.00           | В                       |                         |                                   | (MADE G             | ROUND: Grev mot  | iled dark are                         | v sliahtl              | v sandv angular                   | to     |               |                | X              |
|             | -<br>- 1.00- 1.50      | в                       |                         |                                   | subangula           | ar fine to coarse G  | RAVEL of sla                          | ag with                | medium cobble                     | 10     |               |                |                |
|             | _ 1.00                 | ËS                      |                         |                                   | (MADE G             | ROUND)   | o siay. Sa                            | ina is co              | alse                              |        |               |                | X              |
|             | -<br>- 1.30            | D                       | PID = 0.1ppm            |                                   |                     |  |                                       |                        |                                   |        |               |                | \$             |
|             | -                      |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | ŠL             |
|             | -                      |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | (1.85)         |
|             | -<br>- 1.80            | D                       | PID = 0.3ppm            |                                   |                     |  |                                       |                        |                                   |        |               |                | \$             |
|             | - 200                  | ES                      |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | SL             |
|             | -                      |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | \$             |
|             | -<br>- 2.30            | D                       | PID = 0.4ppm            |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
|             | - 250 200              |                         |                         |                                   |                     |  |                                       |                        |                                   |        | 5.17          |                | 2.50           |
|             | - 2.30- 3.00           |                         |                         |                                   | MADE GF             | ROUND: Brown ve  | ry sandy ang                          | gular to<br>d clinke   | subangular fine                   | to     |               |                |                |
|             | -<br>- 2.80            | D                       | PID = 0.6ppm            |                                   | content. C          | Cobbles are angula   | r of slag and                         | d brick                |                                   | •      |               |                | X I            |
|             | -                      |                         |                         |                                   |                     | ROUND)   |                                       |                        |                                   |        |               |                | Št             |
| 2022        | - 3.00- 3.50<br>- 3.00 | ES                      |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | XF             |
| nber 2      | - 3.30                 |                         | PID = 0.5ppm            |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| Novei       | -                      | ËS                      |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | \$-```'        |
| te: 29      | -                      |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | XF             |
| II Da       | - 3.80                 | D                       | PID = 1.9ppm            |                                   |                     |  |                                       |                        |                                   |        |               |                | X I            |
| 3.GLB       | -                      |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                | \$f            |
| Y V1.       | — 4.00<br>- 4.10- 4.50 | B                       |                         |                                   | l inte trans        |  |                                       |                        | Ones cel in an escal              | 4      | 3.57          |                | 4.10           |
| <b>BRAR</b> | - 430                  |                         | PID = 1.3ppm            |                                   | subrounde           | n very gravelly find   | sandstone                             | and mu                 | dstone                            | ar to  |               |                |                |
|             | -                      | ËS                      | пр поррш                |                                   | (TIDAL F            | LAT DEPOSITS)  |                                       |                        |                                   |        |               |                | (0.43)         |
| AGS 4       | _                      |                         |                         |                                   |                     |  |                                       |                        |                                   |        | 3.14          | <u> </u>       | <b></b> 4.53   |
| NZT /       |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| brary:      |                        |                         |                         |                                   |                     | <b>En</b><br>(Th   | <b>d of Trial P</b> i<br>ickness of b | it 4.53 i<br>basal lay | <b>m</b><br>rer                   |        |               |                |                |
| J II Li     |                        |                         |                         |                                   |                     | Υ.   | not prove                             | en)                    |                                   |        |               |                |                |
| GI.GF       |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| NZT         |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| V11.0       |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| oject:      |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| 3    Pr     |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| IT LOC      | Groundwater            | Observati               | ions<br>Post            | Pla                               | n View              | 1. Trial Pit located in  | Rer<br>the Main Site                  | marks<br>area of Te    | esworks Redcar Lo                 | ocated | in the south  | of Remediatio  | n Zone         |
| IAL P.      | Depth                  | Mins                    | Depth                   |                                   | 1m <b></b>          | PR1A.<br>2. Trial Pit advanced   | to 4.53m bgl.                         |                        | , 1.000011 EC                     |        | 00001         |                |                |
| RD TF       |                        |                         |                         |                                   | T I                 | 3. Topography: Leve     4. Groundwater not e     5. Slag and refractor | encountered du<br>v material enco     | uring exca             | vation.<br>n material recovered   | from a | round level 1 | to 4.10m bal I | No             |
| NDAF        |                        |                         |                         | А                                 | c <sub>4m</sub>     | olfactory evidence of<br>6. Trial Pit backfilled                       | contamination<br>with arisings u      | ipon comp              | pletion.                          | y      |               |                |                |
| ⊃: ST/      |                        |                         |                         |                                   |                     |  |                                       |                        |                                   |        |               |                |                |
| port IL     |                        |                         |                         |                                   | <del>,</del> , ,    |  |                                       |                        |                                   |        |               |                |                |
| Re          | Notes: For explan      | nation of sy            | mbols and abbreviati    | ons, see Key Sheet.               |                     | Scale: 1:30  |                                       | Logged I               | By: RM                            |        | Checked       | By: JW         |                |

| AE  | C                                     | <b>`O</b> N                                    |                    | AECO<br>5th Floor<br>2 City Wal               | <b>М</b><br>к  | T<br>F   | Fel: 0113 391<br>Fax: 0113 391                       | 6800<br>I 6899                                     | AGS  | Bore  | hole  | No. F-E   | 3H12  | 8   |
|---|---------------------------------------|--|--------------------|---|--|--|--|--|--|---|---|---|---|---|
|   |                                       | <u> </u>                                       |                    | Leeds<br>LS11 9AR                             |  | v  | ww.aecom.c   | om   | REGISTERED USER 202                        | 2 Sheet: 1  | of 6  | ()  |   |   |
| Equipment & I<br>0.00 - 0.25 Insi<br>0.15 - 15.00 Sor | Vethods<br>ulated Han<br>nic Drilling | s:<br>d Tools<br>(Hammer ID: GS08)             |                    | Projec<br>Projec                              | t Name: Net 2<br>t Location: Re                                | Zero Teessio<br>edcar, North   | de Onshore<br>Yorkshire                              | Ground In  | vestigation                                | - Front End Engi  | ineering [  | Design (FEED)   | Job No:<br>6067   | 78042   |
| 15.00 - 30.00 Rot                                     | ary Coring                            | (Hammer ID: GS08)                              |                    | Client:                                       | BP   |  |  | Creation of  |  |   |   | Data Startadu (   | 22/02/202   | 0   |
|   |                                       |  |                    | E: 456  | 963.129  |  |  | Ground   | Level (III).                               | 7.523 AOD   |   | Date Complete   | d. 02/08/   | 20022   |
| ln S  | itu Toet                              | ina  | Coring             | N: 525  | 288.281  |  |  |  |  |   | Reduced   | Date Complete   | Denth   | Backfill/   |
| Depth<br>(m)  | Sample<br>Ref &<br>Type               | Test Type<br>and Result                        | TCR<br>SCR<br>ROD  | FI Core<br>Run                                |  | DE   | SCRIPTION  | I  |  |   | Level<br>(m)  | Legend  | (Thick)<br>(m)  | Instrumer   |
| -   | Турс                                  |  |                    |   | MADE GR<br>fine to coa<br>and metal<br>slag, chert<br>(MADE GF | OUND: Bi<br>irse SAND<br>. Gravel is<br>t, sandstor<br><b>ROUND)</b> | rown mott<br>) with occa<br>angular t<br>ne, brick a | led light l<br>asional fr<br>o rounde<br>and aspha | brown ver<br>agments<br>d fine to c<br>alt | ry gravelly<br>of pottery<br>coarse of  | 6.06  |   | -<br>_ (0.56)<br>-  |   |
| -<br>-<br>-   |                                       |  |                    |   | MADE GR<br>fine to coa<br>is fine to c<br>(MADE GF             | ROUND: Bl<br>Irse GRAV<br>oarse<br>ROUND)                            | lack very<br>/EL of sla                              | sandy an<br>g, sandst                              | gular to s<br>one and o                    | ubrounded<br>chert. Sand  | 0.90  |   | -<br>-<br>-<br>-<br>-(0.94)   |   |
| -<br>-<br>-   |                                       |  |                    |   | MADE GR  | OUND: BI   | lack slight  | ly sandy   | angular to                                 | o subangular  | 6.02  |   | -<br>-<br>-<br>1.50   |   |
| -<br>-<br>-<br>-                                      |                                       |  |                    |   | fine to coa<br>fragments<br>(MADE GF<br>From 1.50              | rse GRAV<br>. Sand is f<br><b>ROUND)</b><br>Om to 3.00               | EL of slag<br>ine to coa<br>m bgl: Sli               | g with oc<br>irse<br>ght sulph                     | casional r<br>urous od                     | netal<br>our.   |   |   | -  <br>-  <br>-   |   |
| -<br>-<br>-<br>-<br>-<br>-                            |                                       |  |                    |   |  |  |  |  |  |   |   |   | -<br>-<br>(1.93)<br>-<br>-<br>-   |   |
| -<br>-<br>-<br>-<br>-                                 |                                       |  |                    |   | MADE GR<br>SAND. Gr  | COUND: Ye<br>avel is and   | ellowish b<br>gular to su<br>mudston                 | rown gra<br>ibrounde                               | velly fine<br>d fine to c                  | to coarse<br>coarse of  | 4.09  |   | -<br>-<br>- 3.43<br>_ (0.33)  | I   |
| 3.76- 4.01  | D                                     |  |                    |   | (MADE GF   | ROUND)   | maaoton  | •  |  | ſ   | 3.76  |   | 3.76  |   |
| - 3.90  | ES                                    |  |                    |   |  | oposed re  | mediation  | n level 3 8  | 3m AOD                                     |   |   |   | _ (0.25)  |   |
| <b>4.00</b><br>4.01- 4.50                             | в                                     | PID = 1.4ppm<br>SPT(C) N=21<br>3,3/<br>5,5,6,5 |                    |   | MADE GR<br>fine to coa<br>(MADE GR                             | ROUND: BI<br>Irse GRAV<br>ROUND)                                     | lack slight<br>/EL of slag                           | ly sandy<br>g. Sand i                              | angular to c                               | o subangular<br>coarse  | 3.51  |   | 4.01<br>-<br>-  |   |
|   | D<br>SS<br>B                          | SPT(S) N=29<br>3,7/<br>6,6,8,9                 |                    |   | Medium de<br>coarse SA<br>coarse of s<br>(TIDAL FL             | ense yello<br>ND. Grave<br>sandstone<br>AT DEPOS                     | wish brow<br>el is angu<br>and mud<br>SITS)          | /n slightly<br>lar to sub<br>stone                 | gravelly<br>rounded                        | silty fine to<br>fine to  |   |   | -<br>   |   |
| -<br>- 4.90<br><br>5.00<br>-                          | ES                                    | PID = 1.0ppm                                   |                    |   |  |  |  |  |  |   |   |   | -<br>-<br>-<br>-<br>(2 35)  |   |
| - 5.20- 5.30<br>- 5.30- 6.00<br>-                     | D<br>B                                |  |                    |   | From 5.24<br>carbonace   | 4m bgl: Be<br>eous mater   | comes m<br>rial and o                                | ottled gre   | ey with fre<br>shell fraç                  | quent<br>gments.  |   |   | -<br>-<br>-   |   |
|   |                                       |  |                    |   | From 5.30  | )m bgl: Be   | comes ve   | ery gravel   | ly.  |   |   |   | -<br>-<br>-   |   |
| Water<br>Strike Flow I<br>Depth                       | Strikes<br>Remark                     | S  | Ho<br>Hole<br>(mm) | le Diamete<br>Dia Depth<br>Hole (<br>Pit 0.25 | er<br>of Date<br>(m)<br>27-07-20<br>27-07-20                   | Progr<br>Time<br>22 09:40<br>22 12:00                                | ess<br>Hole<br>Depth (m)<br>0.25<br>1.50             | Casing<br>) Depth (m)<br>1.50                      | Water<br>) Depth (m)                       | Sonic/Rotary Core (     Redcar. Located in the     Suried Service Inspe<br>granted to progress bo     So//RC borehole ad     Coring to 30.00m bgl.     4. Topography: Level     6. Slen and refractory. | Remai<br>SO/RC) bore<br>e south of Rer<br>action Pit term<br>rehole via So<br>vanced via So<br>Bround.<br>not observed<br>material enco | ks<br>hole located in the Main 3<br>mediation Zone PR1A.<br>ninated at 0.25m bgl on h<br>ninc drilling.<br>onic drilling.<br>onic drilling to 15.00m bg<br>during drilling due to adu | Site area of Te<br>hard stratum. F<br>I, and complet<br>dition of flush v | versworks,<br>Permission<br>ed via Rotary<br>vater. |
| Notes: 5  |                                       | n of our shares                                | d obt              | ioticas                                       |  | S  | cale: 1:30   |  |  | 4.01m bgl. Slight sulph<br>7. Borehole installed w<br>completion, to allow Ve   | urous odour i<br>ith an 80mm<br>ertical Seismi  | internal diameter standpi<br>c Profiling.   | Dim bgl.<br>pe to 30.00m l  | bgl upon  |

|   | Mathad                                |                                      | _                 | Lee<br>LS   | eds<br>11 9AR          | Name: Nat Za                  | W                        | ww.aecom.c              | om                    | REGISTERED USER 20        | 2 Sheet:  | 2 of 6  |   | lah Na   |                        |
|---|---------------------------------------|--------------------------------------|-------------------|-------------|------------------------|-------------------------------|--------------------------|-------------------------|-----------------------|---------------------------|---|---|---|--|------------------------|
| Equipment & 1<br>0.00 - 0.25 Ins<br>0.15 - 15.00 So | Method:<br>ulated Har<br>nic Drilling | S:<br>nd Tools<br>(Hammer ID: GS08)  |                   | 1           | Project I<br>Project I | Name: Net Ze<br>Location: Red | ro Teessid<br>car, North | le Onshore<br>Yorkshire | Ground Ir             | ivestigation              | - Front End Ei  | ngineering L  | Jesign (FEED)   | Job No:<br>6067                                | 8042                   |
| 15.00 - 30.00 Ro                                    | tary Coring                           | (Hammer ID: GS08)                    |                   |             | Client: E              | BP                            |                          |                         | Groupe                | l evel (m):               |   |   | Date Started  | 27/07/2022                                     | )                      |
|   |                                       |                                      |                   | Ē           | E: 4569                | 63.129                        |                          |                         | Cround                | Eever (m).                | 7.523 AOE   | )   | Date Complete   | ed: 02/08/2                                    | 2022                   |
| In S  | Situ Tes                              | ting                                 | Coring            | lnfor       | mation                 | 00.201                        |                          |                         |                       |                           |   | Reduced   |   | Depth<br>(Thick)                               | Backfill               |
| Depth<br>(m)  | Sample<br>Ref &<br>Type               | Test Type<br>and Result              | TCR<br>SCR<br>ROD | FI          | Core<br>Run            |                               | DES                      | SCRIPTION               |                       |                           |   | (m)   | Legend  | (m)  | linsuume               |
| <b>6.00-</b> 6.36                                   | B                                     | PID = 10.4ppm<br>SPT(S) N=13<br>3,6/ |                   |             |                        |                               |                          |                         |                       |                           |   |   | × · · · × · · · · · · · · · · · · · · ·                                       | -  |                        |
| 6.36- 7.27  | В                                     | 5,6,2,0                              |                   |             | -                      | Soft brown                    | nottlod a                | rov clight              | ly condy              | cilty CLA                 | Vwith   | 1.16  | · . · .× . · . · .× .   | 6.36   |                        |
| 6.50- 6.60  | D                                     |                                      |                   |             |                        | occasional (                  | arbonac                  | eous mai                | erial. Sa             | nd is fine                | to coarse   |   |   | -  |                        |
|   |                                       |                                      |                   |             |                        |                               |                          | ,<br>,<br>,             |                       |                           |   |   | - <u> </u>  |  |                        |
| 6.90  | ES                                    |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   | - (0.91)                                       |                        |
| 7.00  |                                       | PID = 1.6ppm                         |                   |             |                        |                               |                          |                         |                       |                           |   |   | <br>  |  |                        |
| 7.27- 7.50  | в                                     |                                      |                   |             | -                      | N 4 - 12                      |                          |                         |                       |                           |   | 0.25  |   | 7.27   |                        |
| 7 50 0 00   | _                                     |                                      |                   |             |                        | Medium der<br>clayey fine t   | ise browi<br>o coarse    | n mottled<br>SAND w     | grey and<br>ith abund | d black sli<br>dant carbo | ghtly gravell   | У   | - · · · · · · · · · · · · · · · · · · ·                                       | -  |                        |
| 7.50- 8.20<br>7.50                                  | SS                                    | 4,5/                                 |                   |             |                        | material and<br>subrounded    | fine to c                | onal shell<br>oarse of  | fragmen<br>sandstor   | ts. Gravel                | is angular to<br>Idstone  |   |   | -  |                        |
|   |                                       | 0,1,1,0                              |                   |             |                        | (TIDAL FLA                    | T DEPOS                  | SITS)                   |                       |                           |   |   |   |  |                        |
| 8 00  |                                       | PID = 1.5ppm                         |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
| 8 20 8 20   | р                                     |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   | -  |                        |
| 8.30- 9.00  | В                                     |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   | -  |                        |
| ·8.50   | ES                                    |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
| <b>9.00-</b> 9.70                                   | B                                     | PID = 1.3ppm                         |                   |             |                        |                               |                          |                         |                       |                           |   |   |   | ┣ │  |                        |
| 5.00  | 00                                    | 4,6/                                 |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   | [   | - (4.14)                                       |                        |
|   |                                       |                                      |                   |             |                        | From 9.41n                    | n to 9.57ı               | m bgl: Be               | comes g               | ravelly.                  |   |   |   |  |                        |
| 9.70- 9.80  | D                                     |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   | ······································  | -  |                        |
| 9.80- 10.40   | Б                                     |                                      |                   |             |                        | From 9.81n                    | n hal: No                | longer cl               | avev and              | 1 hecome                  | s gravelly  |   |   | -  |                        |
| ·10.00  |                                       | PID = 1.0ppm                         |                   |             |                        | 11011 0.011                   | n bgi. No                | longer of               | ayey and              | Decome                    | s graveny.  |   |   |  |                        |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   | ······································  |  |                        |
| 10.40- 10.50  | D                                     |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
| 10.50   | SS                                    | 2,3/                                 |                   |             |                        | From 10.50                    | m bal: B                 | ecomes l                | ocally de             | nse and v                 | /ery  |   |   | ╞  |                        |
| 10.70- 10.80  | D                                     |                                      |                   |             |                        | gravelly.                     | 0                        |                         | ,                     |                           | ,   |   |   |  |                        |
| ·11.00  | ES                                    | PID = 1.1ppm                         |                   |             |                        |                               |                          |                         |                       |                           |   |   |   |  |                        |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           |   |   | · · . · <del>· .</del> . · .<br>· · . · <del></del>                           |  |                        |
|   | _                                     |                                      |                   |             |                        |                               |                          |                         |                       |                           |   | 3 90  | · · · · · · · · · · · · · · · · · · ·   |  |                        |
| 11.41- 12.00<br>·                                   | В                                     |                                      |                   |             |                        | Soft locally                  | firm brow                | n mottled               | l grey an             | d black sl                | ightly  | -3.09   | <u></u>   | - 11.41  |                        |
|   |                                       |                                      |                   |             |                        | Gravel is an                  | gular to                 | subround                | ed fine to            | o coarse o                | of mudstone   |   |   |  |                        |
|   |                                       |                                      |                   |             |                        | (TIDAL FLA                    | T DEPOS                  | SITS)                   | Coarse                |                           |   |   |   |  |                        |
| Water   | Strikes                               |                                      | <u>   </u><br>  н | lole D      | iameter                |                               | Progre                   | ess                     |                       |                           |   | Rema  | rks   |  |                        |
| Strike Flow<br>Depth                                | Remark                                | (S                                   | Hole<br>(mn       | e Dia<br>n) | Depth o<br>Hole (n     | of Date<br>n)                 | Time                     | Hole<br>Depth (m        | Casing<br>Depth (m    | Water<br>) Depth (m)      | 1. Sonic/Rotary Co<br>Redcar. Located in<br>2. Buried Service Ir  | re (SO/RC) bore<br>the south of Rei<br>ispection Pit terr | hole located in the Main<br>mediation Zone PR1A.<br>ninated at 0.25m bgl on h | Site area of Tee<br>nard stratum. Pe           | esworks,<br>ermission  |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           | granted to progress<br>3. SO/RC borehole<br>Coring to 30.00m b  | borehole via So<br>advanced via S<br>gl.                  | onic drilling.  | I, and complete                                | ed via Rotary          |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           | <ol> <li>Topograpny: Lev</li> <li>Groundwater stri</li> <li>Slag and refractor</li> <li>Unm bol. Slight strict</li> </ol> | er Ground.<br>kes not observer<br>ory material enco       | d during drilling due to ad<br>ountered in material recov                     | dition of flush w<br>vered from grou<br>Om bol | vater.<br>Ind level to |
|   |                                       |                                      |                   |             |                        |                               |                          |                         |                       |                           | 7. Borehole installe<br>completion, to allow  | d with an 80mm<br>/ Vertical Seismi                       | internal diameter standpi<br>c Profiling.                                     | ipe to 30.00m b                                | ogl upon               |
| 1   |                                       |                                      |                   |             |                        |                               |                          | 1                       |                       |                           |   |   |   |  |                        |

| ΛΞ                                    |                               |  | 4                 | Α                       | ECO                                   | М                           | _                     |   |                       |                           | B  | orehole   | No. F-  | BH12                                   | 8                           |
|---------------------------------------|-------------------------------|--|-------------------|-------------------------|---------------------------------------|-----------------------------|-----------------------|---|-----------------------|---------------------------|--|---|---|--|-----------------------------|
| <b>A</b> =                            |                               |  |                   | 5th<br>2 C<br>Lee<br>LS | i Floor<br>City Walk<br>eds<br>11 9AR | <b>X</b>                    | F<br>V                | Tel: 0113 391<br>Fax: 0113 391<br>www.aecom.c | 6800<br>6899<br>om    | AGS<br>REGISTERED USER 20 | z She  | et: 3 of 6  |   |  |                             |
| Equipment & 0.00 - 0.25 In            | Method<br>sulated Har         | S:<br>nd Tools                           |                   |                         | Project<br>Project                    | Name: Net Ze                | ro Teessio            | de Onshore                                    | Ground Ir             | ivestigation              | - Front End  | l Engineering   | Design (FEED)   | Job No                                 | 28042                       |
| 0.15 - 15.00 S<br>15.00 - 30.00 R     | onic Drilling<br>otary Coring | (Hammer ID: GS08)<br>g (Hammer ID: GS08) |                   |                         | Client:                               | BP                          | sai, norui            | TURSINE                                       |                       |                           |  |   |   | 0007                                   | 0042                        |
|                                       |                               |  |                   |                         | Co-ordi<br>E: 4569                    | inates:<br>)63.129          |                       |   | Ground                | Level (m):                | 7.523 A  | OD  | Date Started:   | 27/07/202                              | 2                           |
| In                                    | Situ Tes                      | ting                                     | Corin             | g Infoi                 | N: 5252<br>mation                     | 288.281                     |                       |   |                       |                           |  | Reduced   |   | ed: 02/08/2                            | Backfill/                   |
| Depth<br>(m)                          | Sample<br>Ref &<br>Type       | Test Type<br>and Result                  | TCR<br>SCR<br>ROD | FI                      | Core<br>Run                           |                             | DES                   | SCRIPTION                                     | l                     |                           |  | Level<br>(m)  | Legend  | (Thick)<br>(m)                         | Instrumen                   |
| <b>12.00-</b> 12.70<br>- 12.00- 12.50 | UT100                         | PID = 0.8ppm<br>100 % recovery           | /                 |                         |                                       |                             |                       |   |                       |                           |  |   |   | -                                      |                             |
| E                                     |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| -                                     |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | -                                      |                             |
| - 12.70- 12.80                        | D                             |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| - 12.80- 13.40<br>-                   | В                             |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               | PID = 0.8ppm                             |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | (3.33)                                 |                             |
| -                                     |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| - 13.40- 13.50                        | D<br>B                        |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| _ 13.50<br>_ 13.50- 14.00             | ES<br>UT100                   | 100 % recovery                           | /                 |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| -                                     |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | $\frac{1}{2}$                          |                             |
| -14.00                                |                               | PID = 0.6ppm                             |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | $\frac{1}{1}$                          |                             |
| - 14.20- 14.30                        | D                             |  |                   |                         |                                       | From 1/1 2                  | m hal· B              | ecomes s                                      | tiff local            | v firm and                | t elightly   |   |   | -                                      |                             |
| - 14.30- 14.90<br>-                   | В                             |  |                   |                         |                                       | sandy.                      | in byi. D             | ecomes a                                      |                       | y initi and               | a singinary  |   |   |  |                             |
| -                                     |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| -                                     |                               |  |                   |                         |                                       | Stiff locally v             | ery stiff             | reddish b                                     | rown mo               | ttled grey                | slightly   | -7.22   |   | 14.74                                  |                             |
| - 14.90- 15.00                        | D                             | PID = 0.8ppm                             |                   |                         |                                       | gravelly slig<br>carbonaceo | ntlý sano<br>us matei | dy silty CL<br>rial. Grave                    | AY with<br>el is angu | occasiona<br>Ilar to sub  | al<br>prounded   | fine  |   |  |                             |
|                                       |                               |  |                   |                         | 15.00-<br>16.50                       | to coarse of<br>(TILL: DEVE | mudstor<br>NSIAN)     | ne. Sand i                                    | is fine to            | coarse                    |  |   |   |  |                             |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | <u>-</u>                               |                             |
|                                       |                               |  | 100<br>0          |                         |                                       |                             |                       |   |                       |                           |  |   |   | £                                      |                             |
|                                       |                               |  | 0                 |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| <sup>2</sup> 16.03- 16.39             | С                             |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | (3.55)                                 |                             |
| 604 - I                               |                               |  |                   | CLAY                    | 16.50-<br>18.00                       |                             |                       |   |                       |                           |  |   |   |  |                             |
| 월<br>16.84- 17.15                     | С                             |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | $\begin{bmatrix} - \\ - \end{bmatrix}$ |                             |
|                                       |                               |  | 94<br>0           |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               |  | Ō                 |                         |                                       |                             |                       |   |                       |                           |  |   |   | ]                                      |                             |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   |  |                             |
|                                       |                               |  |                   |                         |                                       | From 17.60                  | m to 17.              | 83m bgl:                                      | Become                | s sandy.                  |  |   | <u> </u>  |  |                             |
| =_<br>                                |                               |  |                   |                         |                                       |                             |                       |   |                       |                           |  |   |   | -                                      |                             |
| U Wate<br>Strike Flow                 | r Strikes<br>Remark           | s<br>(S                                  | Ho                | Hole E<br>le Dia<br>m∖  | Depth                                 | of Date                     | Progr<br>Time         | Hole  | Casing                | Water                     | 1. Sonic/Rotar<br>Redcar. Locate                                       | Core (SO/RC) bor<br>d in the south of Re                                      | arks<br>ehole located in the Mair<br>emediation Zone PR1A.              | Site area of Te                        | eesworks,                   |
|                                       |                               |  | (mr<br>194        | 1)<br>1                 | 15.00                                 | 28-07-2022                  | 15:00                 | 18.00   | 18.00                 | J Deptri (m)              | 2. Buried Servi<br>granted to prog<br>3. SO/RC bore<br>Coring to 30.00 | ce Inspection Pit ter<br>ress borehole via S<br>hole advanced via S<br>Im bol | minated at 0.25m bgl on<br>onic drilling.<br>Sonic drilling to 15.00m b | hard stratum. F                        | Permission<br>ed via Rotary |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           | 4. Topography<br>5. Groundwate<br>6. Slag and ref                      | Level Ground.<br>r strikes not observe<br>ractory material end                | ed during drilling due to a<br>countered in material reco               | ddition of flush v                     | water.<br>und level to      |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       |                           | 4.01m bgl. Slig<br>7. Borehole ins<br>completion, to                   | ht sulphurous odou<br>talled with an 80mr<br>allow Vertical Seisn             | noted from 1.50m to 3.0<br>n internal diameter stand<br>nic Profiling.  | 00m bgl.<br>pipe to 30.00m             | bgl upon                    |
|                                       |                               |  |                   |                         |                                       |                             |                       |   |                       | <u> </u>                  |  | NC  |   | D. // 114/                             |                             |
| Notes: For e                          | xplanatic                     | on of symbols an                         | d abbi            | reviati                 | ons, se                               | e Key Sheet.                | S                     | cale: 1:30                                    |                       | 1                         | logged By:   | NS  | Checked   | ву: JW                                 |                             |

| A   | EC  | <b>O</b>  |                   | 5th<br>2 C<br>Lee      | ECO<br>Floor<br>City Walk                      | Tel: 0113 391 6800<br>Fax: 0113 391 6899<br>www.aecom.com   | Bore   | hole   | No. F-E   | 3H128  | 3  |
|---|---|---|-------------------|------------------------|--|---|--|--|---|--|--|
| Equipment<br>0.00 - 0.25<br>0.15 - 15.00<br>15.00 - 30.00 | t & Methods<br>Insulated Han<br>Sonic Drilling<br>Rotary Coring | d Tools<br>(Hammer ID: GS08)<br>(Hammer ID: GS08) |                   |                        | <u>11 9AR</u><br>Project<br>Project<br>Client: | Reserve user xez<br>Name: Net Zero Teesside Onshore Ground Investigation - F<br>Location: Redcar, North Yorkshire<br>BP   | Front End Engi   | ineering D   | Design (FEED)   | Job No:<br>60678   | 3042   |
|   | y - 0   | ( ,   |                   |                        | Co-ordi<br>E: 4569                             | nates: Ground Level (m):<br>63.129 7.   | 523 AOD  |  | Date Started:   | 27/07/2022   |  |
|   | In Situ Test  | ina   | Corin             | a Infor                | N: 5252<br>mation                              | 88.281  |  | Reduced  | Date Complete   | ed: 02/08/20   | 022<br>Backfill/   |
| Depth<br>(m)  | Sample<br>Ref &<br>Type   | Test Type<br>and Result                           | TCR<br>SCR<br>RQD | FI                     | Core<br>Run                                    | DESCRIPTION   |  | Level<br>(m)   | Legend  | (Thick)<br>(m)   | Instrument   |
| -<br>-<br>-   |   |   |                   |                        | 18.00-<br>19.50                                | Very weak locally weak fractured thinly laminated of MUDSTONE. Fracture set 1: Very closely to mediu  | dark grey<br>ım  | -10.77   |   | -<br>_ 18.29<br>-  |  |
| -<br>-<br>-<br>-  |   |   | 100<br>75<br>75   | 3                      |  | spaced, sub horizontal to 10°, planar rough, closed<br>open, infilled with dark grey silt. Fracture set 2: Me<br>closely spaced, sub vertical, closed to tight, infilled<br>grey silt and clay<br>(REDCAR MUDSTONE FORMATION) | -<br>-<br>-<br>-   |  |   |  |  |
|   |   |   |                   | NI                     |  |   |  |  |   |  |  |
| -<br>-<br>-<br>-<br>-<br>-                                | С   |   |                   | CLAY                   | 19.50-<br>21.00                                | From 19.47m to 19.50m bgl: Horizon of soft grey s<br>gravelly slightly sandy CLAY. Gravel is angular to<br>subrounded fine to medium of mudstone. Sand is f<br>coarse.  | slightly<br>fine to  |  |   | -<br>-<br>-<br>-   |  |
| -<br>-<br>-   |   |   | 100<br>97<br>89   | 3                      |  |   |  |  |   | -  <br>-  <br>-  <br>-   |  |
| -<br>-  |   |   |                   |                        |  | From 20.57m bgl: Occasional shell fragments pres  | sent.  |  |   | -  |  |
| 21.13   | С   |   |                   | . NI                   | 21.00-<br>22.50                                |   |  |  |   | -  |  |
|   |   |   |                   |                        |  |   |  |  |   | -  |  |
|   |   |   | 100<br>91<br>79   | 6                      |  |   |  |  |   | -  |  |
|   |   |   |                   |                        | 22.50  |   |  |  |   | -  |  |
|   |   |   |                   | 13<br>CLAY<br>7        | 24.00  | From 22.61m to 22.66m bgl: Horizon of soft grey s<br>gravelly slightly sandy CLAY. Gravel is angular to<br>subrounded fine to medium of mudstone. Sand is f   | slightly<br>fine to  |  |   | -  |  |
|   |   |   | 98<br>90<br>85    | CLAY                   |  | coarse.<br>From 23.19m to 23.23m bgl: Horizon of soft grey s  | slightly   |  |   | -  |  |
|   |   |   |                   | 0<br>CLAY              |  | graveily slightly sandy CLAY. Gravel is angular to subrounded fine to medium of mudstone. Sand is f coarse.   | fine to  |  |   | -  <br>-   |  |
| <u>-</u>  |   |   |                   | 1                      |  | gravelly slightly sandy CLAY. Gravel is angular to  | siignuy  |  |   |  |  |
| Strike Fi   | ater Strikes<br>low Remark                                      | S   | Hol<br>(mr        | iole D<br>le Dia<br>n) | Depth<br>Hole (                                | r Progress<br>of Date Time Hole Depth (m) Depth (m) Depth (m) 29-07-2022 12:10 24.00 24.00 3.5 Cor<br>29-07-2022 12:10 24.00 24.00 24.00 3.5 Cor<br>0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0                                   | Sonic/Rotary Core (;<br>dcar. Located in the<br>Juried Service Inspe-<br>nited to progress bo<br>SO/RC borehole ad<br>Trig to 30.00m bgl.<br>Topography: Level C<br>aroundwater strikes<br>Slag and refractory<br>and refractory<br>Im bgl. Stight suph<br>Borehole installed w<br>mpletion, to allow Ve | Remar<br>SO/RC) borel<br>south of Ren<br>action Pit term<br>rehole via So<br>vanced via So<br>Ground.<br>not observed<br>material enco<br>urous odour r<br>th an 80mm i<br>ertical Seismic | KS<br>hole located in the Main.<br>evolution Zone PR1A.<br>inicated at 0.25m big on h<br>inic drilling,<br>nic drilling to 15.00m bg<br>i during drilling due to ad<br>untered in material reco-<br>toted from 1.50m to 3.00<br>internal diameter standpi<br>p Profiling. | Site area of Tee<br>nard stratum. Pe<br>II, and completed<br>dition of flush we<br>vered from grour<br>m bgl.<br>pe to 30.00m bg | sworks,<br>rmission<br>d via Rotary<br>ater,<br>nd level to<br>gl upon |
| Notes: For  | r explanatio  | n of symbols ar                                   | nd abbr           | reviati                | ons, se  | e Key Sheet. Scale: 1:30 Logo   | gea By: NS   |  | Checked E   | sy: JW   |  |
| ΛΞ                                 |                                 | 5                           | A          | A<br>5th     | ECO              | М                                      | Tel <sup>.</sup> 0113 391    | 6800                      |                           |                      | Bore                                  | ehole   | No. F-   | BH12                          | 8                          |
|------------------------------------|---------------------------------|-----------------------------|------------|--------------|------------------|--|------------------------------|---------------------------|---------------------------|----------------------|---------------------------------------|---|--|-------------------------------|----------------------------|
|                                    |                                 |                             |            | 2 C<br>Lee   | City Wall<br>eds | < c                                    | Fax: 0113 39<br>www.aecom.c  | 1 6899<br>om              | AGS<br>REGISTERED USER 20 | 022                  | Sheet: 5                              | 5 of 6  |  |                               |                            |
| Equipment &                        | Methods                         | :                           |            |              | Project          | Name: Net Zero Tee                     | sside Onshore                | Ground Inv                | vestigation               | n - Fron             | it End Eng                            | ineering D  | esign (FEED)   | Job No:                       |                            |
| 0.00 - 0.25 In:<br>0.15 - 15.00 So | sulated Hand<br>onic Drilling ( | d Tools<br>Hammer ID: GS08) |            |              | Project          | Location: Redcar, No                   | orth Yorkshire               |                           |                           |                      |                                       |   |  | 6067                          | 8042                       |
| 15.00 - 30.00 Ro                   | otary Coring                    | (Hammer ID: GS08)           |            |              | Client:          | BP                                     |                              | Ground                    | l evel (m):               |                      |                                       |   | Date Started   | 27/07/2022                    | )                          |
|                                    |                                 |                             |            |              | E: 4569          | 963.129                                |                              | Ground                    | Lever (m).                | 7.523                | AOD                                   |   | Date Comple  | ted: 02/08/2                  | .022                       |
| In                                 | Situ Testi                      | ing                         | Corin      | g Infor      | mation           | 200.201                                |                              |                           |                           |                      |                                       | Reduced   |  | Depth                         | Backfill/                  |
| Depth<br>(m)                       | Sample<br>Ref &                 | Test Type                   | TCR<br>SCR | FI           | Core<br>Run      | ן<br>                                  | DESCRIPTION                  | 1                         |                           |                      |                                       | (m)   | Legend   | (Thick)<br>(m)                | Instrument                 |
| 24.00-24.21                        | Type<br>C                       | and Result                  | RQD        |              | 24.00-           | subrounded fine t                      | o medium o                   | f mudstor                 | ie. Sand                  | is fine              | e to                                  |   |  |                               |                            |
| -                                  |                                 |                             |            | CLAY         | 25.50            | coarse.                                |                              |                           |                           |                      |                                       |   |  |                               |                            |
|                                    |                                 |                             |            |              |                  | From 24.13m to 2                       | 24.22m bgl:                  | Firm grey                 | slightly                  | grave                | lly<br>L fine to                      |   |  | 1                             |                            |
|                                    |                                 |                             |            | 4            |                  | medium of mudste                       | one. Sand is                 | s fine to co              | barse.                    | undee                |                                       |   |  |                               |                            |
| F                                  |                                 |                             | 100<br>86  | CLAY         | -                |  |                              |                           |                           |                      |                                       |   |  | <b>F</b>                      |                            |
|                                    |                                 |                             | 75         |              | 1                | From 24.71m to 2                       | 24.77m bgl:                  | Firm grey                 | slightly                  | grave                | lly                                   |   |  | 1                             |                            |
|                                    |                                 |                             |            | 4            |                  | medium of mudst                        | one. Sand is                 | s angular<br>s fine to co | to subroi<br>parse.       | unded                | fine to                               |   |  |                               |                            |
| -                                  |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | -                             |                            |
|                                    |                                 |                             |            | CLAY         |                  |  |                              |                           |                           |                      |                                       |   |  | 1                             |                            |
| 25.57                              | с                               |                             |            |              | 25.50-           | From 25.32m to 2<br>slightly sandy CLA | 25.38m bgl:<br>AY. Gravel is | Firm grey<br>angular      | slightly to subro         | grave<br>unded       | lly<br>I fine to                      |   |  | }- ∣                          |                            |
| -                                  |                                 |                             |            |              | 27.00            | medium of mudste                       | one. Sand is                 | s fine to co              | oarse.                    |                      |                                       |   |  | <b>I</b>                      |                            |
|                                    |                                 |                             |            | 2            |                  |  |                              |                           |                           |                      |                                       |   |  | 1                             |                            |
| -                                  |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | ┣                             |                            |
| F                                  |                                 |                             | 100        |              |                  |  |                              |                           |                           |                      |                                       |   |  | <b>-</b>                      |                            |
|                                    |                                 |                             | 92         | CLAY         |                  |  |                              |                           |                           |                      |                                       |   |  | 1                             |                            |
| -                                  |                                 |                             |            |              |                  | From 26.34m to 2                       | 26.37m bgl:                  | Firm grey                 | slightly                  | grave                | lly<br>L fine to                      |   |  | ┣                             |                            |
| F                                  |                                 |                             |            | 5            |                  | medium of mudste                       | one. Sand is                 | s fine to co              | barse.                    | unueu                |                                       |   |  |                               |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  |                               |                            |
|                                    |                                 |                             |            |              | 27.00-           |  |                              |                           |                           |                      |                                       |   |  | -                             |                            |
|                                    |                                 |                             |            |              | 28.50            |  |                              |                           |                           |                      |                                       |   |  |                               |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | 1                             |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | -                             |                            |
| 27.66- 27.82                       | С                               |                             | 100        | 3            |                  |  |                              |                           |                           |                      |                                       |   |  | <b>₹</b>                      |                            |
|                                    |                                 |                             | 95         |              |                  |  |                              |                           |                           |                      |                                       |   |  | 1                             |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | }- ∣                          |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | <b>F</b>                      |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  |                               |                            |
| 28.50                              |                                 |                             |            |              | 28.50-           |  |                              |                           |                           |                      |                                       |   |  | ┣                             |                            |
| 20.39<br>1                         |                                 |                             |            |              | 30.00            |  |                              |                           |                           |                      |                                       |   |  | <b>F</b>                      |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  |                               |                            |
| <u> </u>                           |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | -                             |                            |
| <u>-</u>                           |                                 |                             | 98         | 2            |                  |  |                              |                           |                           |                      |                                       |   |  | <b>f</b>                      |                            |
|                                    |                                 |                             | 61         |              |                  |  |                              |                           |                           |                      |                                       |   |  |                               |                            |
| -                                  |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | }- ∣                          |                            |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | <b>]</b>                      |                            |
| 2  -<br>-  -<br>-  -               |                                 |                             |            |              |                  |  |                              |                           |                           |                      |                                       |   |  | 1                             |                            |
| Wate                               | r Strikes                       |                             |            | NI<br>Iole D | )<br>Jamete      | r Pr                                   | ogress                       |                           |                           |                      |                                       | -22.48<br>Remark  | <s< td=""><td>30.00</td><td></td></s<>                             | 30.00                         |                            |
| Strike Flow                        | Remark                          | 6                           | Hol        | le Dia<br>n) | Depth            | of Date Time                           | Hole<br>Depth (m)            | Casing                    | Water<br>Depth (m)        | 1. Sonic<br>Redcar.  | Rotary Core (<br>Located in the       | SO/RC) boreh  | iole located in the Mai<br>rediation Zone PR1A.                    | n Site area of Te             | esworks,                   |
|                                    |                                 |                             | 146        | ,<br>S       | 30.00            | 01-08-2022 14:30                       | 30.00                        | 30.00                     |                           | granted<br>3. SO/R   | to progress bo                        | prehole via Sor<br>vanced via Sor                                     | nated at 0.25m bgl of<br>nic drilling.<br>nic drilling to 15.00m l | bgl, and complete             | ermission<br>ed via Rotary |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           | 4. Topo<br>5. Ground | graphy: Level (<br>ndwater strikes    | Ground.<br>not observed   | during drilling due to a   | addition of flush w           | vater.                     |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           | 4.01m b<br>7. Borel  | ogl. Slight sulph<br>nole installed w | iurous odour n<br>iurous odour n<br>ith an 80mm ir<br>ertical Seismic | oted from 1.50m to 3.<br>nternal diameter stand                    | 00m bgl.<br>dpipe to 30.00m b | igl upon                   |
|                                    |                                 |                             |            |              |                  |  |                              |                           |                           | Complet              | ion, to allow V                       | o ucar ceismic  | , oning.   |                               |                            |
| Notes: For ex                      | planation                       | n of symbols a              | nd abbi    | reviati      | ı<br>ons, se     | e Key Sheet.                           | Scale: 1:30                  | ļ                         | L   I                     | Logged               | By: NS                                |   | Checked  | By: JW                        |                            |

|  | A   | EC  | <b>O</b>   |                      | 5th<br>2 C<br>Lee | Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor<br>Floor | VI                                  | Te<br>Fi<br>W              | el: 0113 391<br>ax: 0113 391<br>ww.aecom.c | 6800<br>6899<br>om             |                      | E<br>st   | Bore   | ehole  | No. F-   | BH12   | 8  |
|--|---|---|--|----------------------|-------------------|---|-------------------------------------|----------------------------|--|--------------------------------|----------------------|---|--|--|--|--|--|
| 0.0<br>0.1<br>15   | Equipmen<br>00 - 0.25<br>15 - 15.00<br>5.00 - 30.00 | t & Methods<br>Insulated Har<br>Sonic Drilling<br>Rotary Coring | S:<br>nd Tools<br>(Hammer ID: GS08)<br>(Hammer ID: GS08) |                      |                   | Project<br>Project<br>Client:   | Name: Net Ze<br>Location: Rec<br>BP | ero Teessid<br>dcar, North | le Onshore<br>Yorkshire                    | Ground In                      | vestigation          | 1 - Front E   | nd Eng   | ineering D   | esign (FEED)   | Job No:<br>6067  | 8042   |
|  |   |   |  |                      |                   | Co-ordii<br>E: 4569<br>N: 5252  | nates:<br>63.129<br>88.281          |                            |  | Ground                         | Level (m):           | 7.523   | AOD  |  | Date Started   | : 27/07/2022<br>eted: 02/08/2  | 2<br>2022  |
|  | Depth<br>(m)  | In Situ Tes<br>Sample<br>Ref &                                  | ting<br>Test Type  | Corino<br>TCR<br>SCR | g Infor<br>FI     | mation<br>Core<br>Run   |                                     | DES                        | SCRIPTION                                  |                                |                      |   |  | Reduced<br>Level<br>(m)  | Legend   | Depth<br>(Thick)<br>(m)  | Backfill/<br>Instrument  |
| Project: V11.1 NZT GI.GPJ    Library: NZT AGS 4_0 LIBRARY V1.3.GLB    Date: 29 November 2022 |   |   |  |                      |                   |   |                                     | <b>End</b><br>(Thio        | of Boreh<br>ckness of<br>not pro           | ole 30.00<br>basal la<br>oven) | 9 m<br>yer           |   |  |  |  |  |  |
| ELOG   | W   | ater Strikes  |  |                      | lole D            | iamete  | r                                   | Progre                     | ess  |                                |                      |   |  | Remar  | (S   | i- 04- 15  |  |
| ום: STANDARD COREHOL   | trike FI  | ow Remark   |  | Hol<br>(mr           | e Dia<br>n)       | Depth<br>Hole (r  | of Date<br>n)                       | Time                       | Hole<br>Depth (m)                          | Casing<br>Depth (m             | Water<br>) Depth (m) | 1. Sonic/Rot<br>Redcar. Loc<br>2. Buried Se<br>granted to p<br>3. SO/RC bc<br>Coring to 30<br>4. Topograp<br>5. Groundwe<br>6. Slag and<br>4.01m bgl. S<br>7. Borehole<br>completion, | tary Core (<br>cated in the<br>proce Insport<br>orehole ad<br>0.00m bgl.<br>hy: Level 0<br>ater strikes<br>refractory<br>Slight sulph<br>installed w<br>to allow V | (SURC) boref<br>e south of Rem<br>orchole via Sor<br>Ivanced via So<br>Ground.<br>s not observed<br>material encou<br>unrous odour n<br>vith an 80mm in<br>ertical Seismic | ore located in the Ne<br>ediation Zone PR1A<br>nated at 0.25m bgl c<br>ic drilling.<br>nic drilling to 15.00m<br>during drilling due to<br>intered in material re<br>oted from 1.50m to 3<br>thernal diameter star<br>Profiling. | In Site area of Te<br>n hard stratum. P<br>bgl, and complete<br>addition of flush v<br>covered from grou<br>.00m bgl.<br>dpipe to 30.00m b | esworks,<br>ermission<br>ad via Rotary<br>vater.<br>und level to<br>ogl upon |
| Repor  | Notes: For  | r explanatio  | n of symbols ar  | l<br>nd abbr         | eviati            | ons, se   | e Key Sheet.                        | Sc                         | l<br>ale: 1:30                             |                                | L                    | Logged By:  | : NS   |  | Checke   | d By: JW   |  |

| ΛΞ   |   | 101  | A                 | A                          |                                     | /  | т  | ol: 0113 301  | 6800   |   | Bor   | ehole   | No. F-E  | 3H12   | 4  |
|--|---|--|-------------------|----------------------------|-------------------------------------|--|--|---|--|---|---|---|--|--|--|
|  |   |  |                   | 2 C<br>Lee<br>LS1          | ity Walk<br>ds<br>119AR             | James Net Ze   | F<br>W   | ax: 0113 391  | 6899<br>om   | AGS<br>REGISTERED USER 2                        | Sheet:  | 1 of 7  |  | lah Na   |  |
| Equipment &<br>0.00 - 0.19 In<br>0.19 - 15.00 S<br>15.00 - 34.00 R | Method<br>nsulated Har<br>onic Drilling<br>otary Coring | S:<br>nd Tools<br>(Hammer ID: GS002)<br>g (Hammer ID: GS002) |                   | F                          | Project N<br>Project L<br>Client: E | Name: Net Zei<br>Location: Redo<br>3P  | ro Teessid<br>car, North   | le Onshore<br>Yorkshire   | Ground In  | vestigatior                                     | n - Front End En  | gineering   | Design (FEED)  | Job No:<br>6067  | 8042   |
|  |   |  |                   | E                          | Co-ordin<br>E: 45685                | ates:<br>58.122  |  |   | Ground   | Level (m):                                      | 7.457 AOD   |   | Date Started:  | 28/07/2022   | 2  |
| In   | Situ Tes  | ting   | Coring            | Infor                      | N: 52531<br>mation                  | 16.104   |  |   |  |   |   | Reduced   | Dute complete  | Depth  | Backfill/  |
| Depth<br>(m)   | Sample<br>Ref &   | Test Type<br>and Result                                      | TCR<br>SCR<br>ROD | FI                         | Core<br>Run                         |  | DES  | SCRIPTION   |  |   |   | (m)   | Legend   | (m)  | Instrume   |
| -  |   |  |                   |                            | t<br>t<br>(                         | MADE GRO<br>to coarse GF<br>N.B. Sulphu<br>( <b>MADE GRO</b>                       | UND: BI<br>RAVEL o<br>rous odo<br><b>UND)</b>  | ack and g<br>of slag and<br>our preser                              | grey angu<br>d chert<br>nt                           | lar to su                                       | brounded fine   | •   |  | -<br>- (0.63)  |  |
|  |   | PID = 3.4ppm   |                   |                            | ľ                                   | MADE GRO<br>fine to coars  | UND: Da<br>e SAND  | ark brown<br>. Gravel i   | mottled<br>s angular                                 | black gra                                       | avelly silty<br>ounded fine to  | 6.83  |  | - 0.63<br>- (0.35)   |  |
| -<br>1.00<br>-   |   | PID = 2.6ppm   |                   |                            | (                                   | (MADE GRO<br>MADE GRO<br>sandy angula  | UND: Date of the providence of | ark reddis<br>Inded fine  | h brown<br>to coars                                  | mottled I<br>e GRAV                             | black very<br>EL of slag,   | 6.48  |  | 0.98   |  |
| -<br>-<br>   |   | PID = 2.8ppm   |                   |                            |                                     | (MADE GRO  |  |   |  |   |   | 5.96  |  | (0.52)   |  |
| -<br>-<br>-<br>-<br>2.00<br>-<br>-                                 |   | PID = 1.7ppm   |                   |                            | t<br>(                              | MADE GRO<br>to coarse GF<br>( <b>MADE GRO</b><br>From 1.50m                        | UND: BI<br>RAVEL c<br>P <b>UND)</b><br>n to 3.00   | ack and <u>c</u><br>of slag<br>m bgl: Su                            | jrey angu<br>Iphurous                                | iar to su<br>odour pi                           | brounded fine   | 3   |  |  |  |
| -<br>2.50<br>-<br>-<br>-<br>-<br>                                  |   | PID = 1.1ppm<br>PID = 1.6ppm                                 |                   |                            |                                     |  |  |   |  |   |   |   |  | - (2.29)<br>   |  |
| -<br><del></del> 3.50<br>- 3.60- 3.79                              | D   | PID = 0.7ppm   |                   |                            |                                     |  |  |   |  |   |   |   |  |  |  |
| - 3.79- 3.90<br>3.80<br>- 3:90- 4.50<br>4.00<br>- 4.10- 4.20       | D<br>ES<br>B<br>D                                       | SPT(C) N=49<br>12,12/<br>15,12,10,12<br>PID = 1.1ppm         |                   |                            | 2<br>1<br>2<br>2<br>2               | At 3.60m bg<br>commence b<br>MADE GRO<br>SAND. Grav<br>slag, chert, s<br>(MADE GRO | I: Reme<br>beneath<br>UND: Bl<br>el is ang<br>andston<br><b>UND)</b>   | diation to<br>this depth<br>ack mottle<br>gular to su<br>ne, mudste | p depth.<br>n.<br>ed grey g<br>ibrounde<br>one, coal | Sampling<br>ravelly fi<br>d fine to<br>and igne | g to<br>ne to coarse<br>coarse of<br>eous rock  | 3.67  |  | 3.79   |  |
| -<br>-<br><b>4.50</b> - 4.96<br>-                                  | В   | PID = 1.8ppm<br>SPT(C) N=40                                  |                   |                            |                                     | From 4.09m   | n to 4.84  | m bgl: Be   | comes ve   | ery grave                                       | elly.   |   |  | (1.17)   |  |
| -  | В   | 8,14/<br>13,12,9,6   |                   |                            |                                     | From 4.50m   | 1 to 4.96  | m bgl: Fre  | equent or  | ganic ma  | ateriai.  | 2.50  |  | 4.96   |  |
| Strike Flow  | er Strikes  | ;<br>(S  | Holo              |                            | iameter                             | of Date  | Progre   | ess<br>Hole   | Casing   | Water   | 1. Sonic/Rotary Con   | /I<br>Rema  | It v v v v v v v v v v v v v v v v v v v   | Site area of Te  | esworks,   |
| Depth  |   |  | (mm               | סום <del>-</del><br>ס. Pit | 0.19                                | 28-07-2022<br>29-07-2022   | 15:30<br>12:00   | 0.19<br>4.35  | 3.00   | 2.70  | Redcar. Located in 1<br>2. Buried Service Ins<br>granted to progress<br>3. SO/RC borehole<br>- Coring to 34.00m bg<br>4. Topography: Leve<br>5. Groundwater strik<br>6. Slag encountered<br>odour noted within N<br>7. Borehole backfille | he south west<br>spection Pit ten<br>borehole via S<br>advanced via S<br>l.<br>el Ground.<br>es not observe<br>in material rec<br>lade Ground to<br>d with bentonit | of Remediation Zone PR<br>minated at 0.19m bgl on I<br>onic drilling.<br>Sonic drilling to 15.00m bg<br>ad during drilling due to ac<br>povered from ground level<br>3.3.00m bgl.<br>Ie pellets and arisings upc | IB.<br>hard stratum. P<br>gl, and progress<br>Idition of flush w<br>to 4.96m bgl. \$ | ermission<br>ed via Rotary<br>vater.<br>Sulphurous |
| Notes: For o   | vnlanatio   | on of symbols on   | dabbr             | aviatio                    |                                     | Key Sheet  | Sc   | ale: 1:25   |  | <br>  | Logged By: NS   |   | Checked I  | By: JW   |  |
| NOIGO, FUI E   | npianal(C   | n or symbols all   |                   | - viau                     |                                     | noy oneer.   |  |   |  |   |   |   |  |  |  |

|                                  |              |  | A           | A<br>5th    | ECO               | M                                    | 6800  | Bore   | hole                          | No. F-E  | 3H12                                      | 4                     |
|----------------------------------|--------------|--|-------------|-------------|-------------------|--------------------------------------|---|--|-------------------------------|--|---|-----------------------|
|                                  |              |  |             | 2 C<br>Lee  | City Wall<br>eds  | k Fax: 0113 391<br>www.aecom.co      | 6899<br>om AGS                                      | Sheet 2  | of 7                          |  |   |                       |
| Equipment &                      | Method       | s:   |             | LS          | 11 9AR<br>Project | t Name: Net Zero Teesside Onshore    | REGISTERED USER 2022<br>Ground Investigation - From | nt End Engir   | neering D                     | Design (FEED)  | Job No:                                   |                       |
| 0.00 - 0.19 In<br>0.19 - 15.00 S | sulated Har  | nd Tools<br>(Hammer ID: GS002)   |             |             | Project           | t Location: Redcar, North Yorkshire  |   |  |                               |  | 6067                                      | 8042                  |
| 15.00 - 34.00 R                  | otary Coring | g (Hammer ID: GS002)   |             |             | Client:           | BP                                   |   |  |                               |  |   |                       |
|                                  |              |  |             |             | Co-ord<br>E: 4568 | linates:<br>858.122                  | Ground Level (m):<br>7.45                           | 7 AOD  |                               | Date Started:  | 28/07/2022                                | 2                     |
| In                               | Situ Tes     | tina   | Coring      | Info        | N: 525<br>mation  | 316.104                              |   |  | Reduced                       |  | Depth                                     | Backfill/             |
| Depth                            | Sample       | Test Type  | TCR         | FI          | Core              | DESCRIPTION                          |   |  | Level<br>(m)                  | Legend   | (Thick)<br>(m)                            | Instrument            |
| (m)<br>5.00                      | Туре         | and Result<br>PID = 1.2ppm   | RQD         |             | Run               | Vallowich brown mottled grou         | alighthy group ally aits fin                        | a ta   |                               | × · · · × · · ·  |   |                       |
| - 5.10                           | ES           |  |             |             |                   | coarse SAND with occasional          | organic material. Grav                              | vel is   |                               | · . · .× . · . · .× .  | -   |                       |
| Ľ                                |              |  |             |             |                   | mudstone and coal                    | coarse of sandstone,                                |  |                               |  |   |                       |
| - 5.40- 5.50                     | D            |  |             |             |                   | (TIDAL FLAT DEPOSITS)                |   |  |                               | × ×<br>  |   |                       |
| <b>5.50</b> - 6.00               | В            | PID = 1.0ppm   |             |             |                   | From 4.96m to 5.21m bgl: Mo          | ttled black with occasi                             | onal   |                               | × · · · × · · · · · ·  | (1.04)                                    |                       |
| -                                |              |  |             |             |                   | relict rootlets.                     |   |  |                               | ×  | -   |                       |
| - 5.80                           | ES           |  |             |             |                   |                                      |   |  |                               | · · · · · · · · · · · · · · · · · · ·  |   |                       |
| -                                |              |  |             |             |                   |                                      |   |  |                               | · . · .× . · . · .× .<br>·× · . · .× · . ·                                     | -   |                       |
| <b>6.00</b> - 6.10               | D            | PID = 1.1ppm<br>SPT(S) N=0   |             |             |                   | Soft locally very soft brown mo      | ottled grey slightly grav                           | elly   | 1.46                          | · <u> </u>   | 6.00                                      |                       |
| 6.10-6.70                        | В            | Ò,Ó/<br>0.0.0.0  |             |             |                   | sandy CLÁY                           |   | -  |                               |  |   |                       |
| -                                |              | -,-,-,-  |             |             |                   |                                      |   |  |                               | <u></u>  |   |                       |
| -                                |              |  |             |             |                   |                                      |   |  |                               |  |   |                       |
| -6.50                            |              | PID = 0.8ppm   |             |             |                   |                                      |   |  |                               |  |   |                       |
| - 6.70- 6.80                     | D            |  |             |             |                   |                                      |   |  |                               |  | (1.29)                                    |                       |
| - 6.80- 7.29                     | В            |  |             |             |                   |                                      |   |  |                               |  |   |                       |
| 6.80                             | ES           |  |             |             |                   |                                      |   |  |                               |  | -   |                       |
| -7.00                            |              | PID = 0.5ppm   |             |             |                   |                                      |   |  |                               |  |   |                       |
| _                                |              |  |             |             |                   | From 7 10m bal: Becomes fire         | n   |  |                               | ·  |   |                       |
| - 7.29- 7.50                     | D            |  |             |             |                   | Medium dense locally dense v         | ellowish brown mottled                              | d arev   | 0.17                          | <u> </u>   | 7.29                                      |                       |
| -                                |              |  |             |             |                   | slightly gravelly silty fine to coa  | arse SAND with occasi                               | ional  |                               | · . · .× . · . · .× .<br>· . · . × . · . · .                                   | -   |                       |
| 7.50                             | SS           | SPT(S) N=23  |             |             |                   | subrounded fine to coarse of s       | andstone and mudsto                                 | ne   |                               | · . · .× . · . · .× .  | <b>F</b>                                  |                       |
| - 7.00- 8.10                     |              | 4,5,6,8  |             |             |                   | (IIDAL FLAT DEPOSITS)                |   |  |                               |  | -   |                       |
| - 7.80                           | ES           |  |             |             |                   |                                      |   |  |                               | × · · × · · · · · · · · · · · · · · · ·  | -   |                       |
| 8 00                             |              | PID = 0.4 nnm  |             |             |                   |                                      |   |  |                               | × · . · . × · . · .<br>· · · × · · ×   |   |                       |
| - 8.10- 8.20                     | D            | 1 ID - 0.4ppm  |             |             |                   |                                      |   |  |                               | ×  | -   |                       |
| - 8.20- 9.00                     | В            |  |             |             |                   |                                      |   |  |                               | · · · · · · · · · · · · · · · · · · ·  | -   |                       |
| -                                |              |  |             |             |                   |                                      |   |  |                               | · . · .× . · . · .× .<br>·× · . · .× · . · .                                   | -   |                       |
| L                                |              |  |             |             |                   |                                      |   |  |                               | `.`.×.`.`.×.   |   |                       |
| F                                |              |  |             |             |                   |                                      |   |  |                               | · · · × · · · · × .  | -   |                       |
| -                                |              |  |             |             |                   | From 8.57m bgl: Occasional p         | oockets of firm brown r                             | mottled  |                               | × · · × · · · ·  | F   |                       |
| [                                |              |  |             |             |                   | <u> </u>                             |   |  |                               | × · · · · · · · · · · · · · · · · · · ·  | (3.21)                                    |                       |
| <b>9.00</b> - 9.10               | D            | PID = 0.2ppm   |             |             |                   |                                      |   |  |                               | × ×  | ┝│  |                       |
| 9.00<br>9.10- 9.80               | SS<br>B      | SPT(S) N>50<br>2,4 / 5,8,16,21   |             |             |                   |                                      |   |  |                               | ×  | ╞──│                                      |                       |
| Ľ                                |              | tor 70mm   |             |             |                   |                                      |   |  |                               | · · · × · · · · × ·  | t I                                       |                       |
| Ļ                                |              |  |             |             |                   |                                      |   |  |                               | `.`.×`.×<br>`×`.`.   |   |                       |
| <b>-</b>                         |              |  |             |             |                   |                                      |   |  |                               | · · · × · · · · × .  | ┝│  |                       |
| F                                |              |  |             |             |                   |                                      |   |  |                               | × · · × · · ·  | ╞   |                       |
| 9.80- 9.90                       | D            |  |             |             |                   |                                      |   |  |                               | × · · · × · · · · · ·  | [   |                       |
| 9.80                             | ES<br>B      |  |             |             |                   |                                      |   |  |                               | × · · · × · · · ·  | ╞   |                       |
| Wate                             | r Strikes    | <u> </u>   | <u> </u>    | ole D       | l<br>Diamete      | er Progress                          |   |  | Remar                         | ks_  | I   |                       |
| Strike Flow<br>Depth             | Remark       | <s< td=""><td>Hole<br/>(mm</td><td>e Dia<br/>1)</td><td>Depth<br/>Hole (</td><td>n of Date Time Hole<br/>(m) Depth (m)</td><td>Casing Water 1. Soni<br/>Depth (m) Depth (m)</td><td>ic/Rotary Core (S<br/>r. Located in the<br/>ed Service Insport</td><td>O/RC) bore<br/>south west o</td><td>hole located in the Main<br/>f Remediation Zone PR<br/>hinated at 0.19m bol on 1</td><td>Site area of Te<br/>1B.<br/>hard stratum P.</td><td>esworks,<br/>ermission</td></s<> | Hole<br>(mm | e Dia<br>1) | Depth<br>Hole (   | n of Date Time Hole<br>(m) Depth (m) | Casing Water 1. Soni<br>Depth (m) Depth (m)         | ic/Rotary Core (S<br>r. Located in the<br>ed Service Insport | O/RC) bore<br>south west o    | hole located in the Main<br>f Remediation Zone PR<br>hinated at 0.19m bol on 1 | Site area of Te<br>1B.<br>hard stratum P. | esworks,<br>ermission |
|                                  |              |  |             | -           |                   |                                      | granted<br>3. SO/I                                  | d to progress bore<br>RC borehole adva<br>to 34.00m bol      | ehole via So<br>anced via So  | nic drilling.<br>onic drilling to 15.00m bg                                    | I, and progress                           | ed via Rotary         |
|                                  |              |  |             |             |                   |                                      | 4. Topo<br>5. Grou                                  | ography: Level G<br>undwater strikes r                       | round.<br>not observed        | during drilling due to ac  | dition of flush w                         | vater.                |
|                                  |              |  |             |             |                   |                                      | o. Slag<br>odour r<br>7. Bore                       | noted within Made<br>within Made                             | e Ground to<br>rith bentonite | 3.00m bgl.<br>pellets and arisings upo   | n completion.                             | Jaipinalous           |
|                                  |              |  |             |             |                   |                                      |   |  |                               |  |   |                       |
| Notes: For e                     | xplanatic    | on of symbols an   | d abbre     | eviati      | l<br>ons, se      | ee Key Sheet.                        |   | d By: NS   |                               | Checked I  | By: JW                                    |                       |

| AE  | C  | <b>ON</b>   | 1                 | <b>A</b><br>5th<br>2 C | ECOI<br>Floor<br>ity Walk | M  | T   | <sup>-</sup> el: 0113 391<br><sup>-</sup> ax: 0113 391              | 6800<br>I 6899                             | AGS                                     | Bor   | ehole   | No. F-E  | 3H124   | 4  |
|---|--|---|-------------------|------------------------|---------------------------|--|---|---|--|---|---|---|--|---|--|
| Equipment &   | Method                                       | e'  |                   | Lee<br>LS'             | eds<br>11 9AR<br>Project  | Name <sup>,</sup> Net Ze   | W   | ww.aecom.c  | om<br>Ground Ir                            |   | Sheet:  | 3 of 7  | Design (FEED)  | loh No:   |  |
| 0.00 - 0.19 In<br>0.19 - 15.00 S<br>15.00 - 34.00 R   | sulated Har<br>onic Drilling<br>otary Coring | nd Tools<br>(Hammer ID: GS002)<br>g (Hammer ID: GS002)  |                   |                        | Project<br>Client:        | Location: Red  | car, North  | Yorkshire   | Ground II                                  | Ivesugation                             |   | igineening i  |  | 60678   | 8042   |
|   |  |   |                   |                        | Co-ordi<br>E: 4568        | nates:<br>58.122   |   |   | Ground                                     | l Level (m):                            | 7.457 AOE   | )   | Date Started:  | 28/07/2022  | 022  |
| In  | Situ Tes                                     | ting  | Coring            | l Infor                | N: 5253<br>mation         | 316.104  |   |   |  |   |   | Reduced   | Date Complete  | Depth   | Backfill/  |
| Depth<br>(m)  | Sample<br>Ref &<br>Type                      | Test Type<br>and Result   | TCR<br>SCR<br>RQD | FI                     | Core<br>Run               |  | DES   | SCRIPTION   | 1  |   |   | (m)   | Legend   | (Thick)<br>(m)  | Instrumen  |
|   | D<br>B<br>ES<br>D<br>B<br>UT100<br>B         | And Result<br>PID = 0.5ppm<br>SPT(S) N=12<br>2,4/<br>6,3,1,2<br>PID = 0.5ppm<br>PID = 0.5ppm<br>PID = 1.4ppm<br>90 % recovery | RQD               |                        |                           | Firm locally<br>sandy silty C<br>subangular<br>sandstone. S<br>(TIDAL FLA      | soft brow<br>CLAY with<br>o subrou<br>Sand is f<br><b>T DEPOS</b>     | vn mottled<br>h abunda<br>unded find<br>fine to coa<br><b>SITS)</b> | d black s<br>nt organ<br>e to coar<br>arse | lightly gra<br>ic materia<br>se of muc  | avelly slightly<br>Il. Gravel is<br>dstone and  | 3.04  |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-           |  |
| 28 -<br>28 -<br>28 -<br>29 -<br>13.00<br>29 -<br>13.00<br>29 -<br>29 -<br>13.00<br>20 -<br>20 | D  | PID = 1.2ppm  |                   |                        |                           |  |   |   |  |   |   |   |  | -<br>-<br>-<br>-<br>-   |  |
| 13.50<br>13.83- 14.20<br>4.20<br>13.83- 14.20<br>4.20<br>14.00<br>5.20<br>14.20- 14.30<br>14.30- 14.90<br>15.20<br>14.30- 14.90<br>15.20<br>14.30- 14.90<br>15.20<br>14.30- 14.90<br>15.20<br>14.20- 14.30<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20<br>15.20  | B<br>B<br>B                                  | PID = 0.6ppm  |                   |                        |                           | Stiff locally v<br>gravelly sligl<br>subrounded<br>and chalk. S<br>(TILL: DEVE | very stiff<br>htly sand<br>fine to c<br>cand is fir<br><b>NSIAN</b> ) | reddish b<br>ly silty CL<br>coarse of i<br>ne to coa                | rown mc<br>AY. Grav<br>mudston<br>rse      | ttled grey<br>vel is suba<br>e, sandsto | y slightly<br>angular to<br>one, chert  | 6.37  |  | -<br>-<br>- 13.83<br>-<br>-<br>-<br>-<br>-<br>-   |  |
| 2 - 14.50<br>   | ES<br>D                                      |   |                   |                        |                           |  |   |   |  |   |   |   |  |   |  |
| J Wate  | r Strikes                                    | ;<br>(s   | - F               | lole D<br>e Dia        | iamete<br>Denth           | r<br>of Date   | Progre  | ess<br>Hole   | Casing                                     | Water                                   | 1. Sonic/Rotary Co  | Remains<br>re (SO/RC) bore  | ▪<br>rks<br>ehole located in the Main  | •<br>Site area of Tee   | esworks,   |
|   |  |   | (mn               | n)                     | Hole (r                   | n) 01-08-2022  | 17:00   | Depth (m)<br>13.50  | Depth (m<br>13.50                          | ) Depth (m)<br>1.10                     | Redcar. Located in<br>2. Buried Service II<br>granted to progress<br>3. SO/RC borehole<br>Coring to 34.00m b<br>4. Topography: Lev<br>5. Groundwater stri<br>6. Slag encountere<br>odour noted within<br>7. Borehole backfill | the south west of<br>spection Pit terr<br>borehole via Sc<br>advanced via S<br>gl.<br>el Ground.<br>Kes not observed<br>i in material rec<br>Vlade Ground to<br>ed with bentonite | of Remediation Zone PR<br>initiated at 0.19m bgl on 1<br>onic drilling,<br>onic drilling to 15.00m bg<br>d during drilling due to ad<br>overed from ground level<br>3.00m bgl.<br>a pellets and arisings upc | 1B.<br>nard stratum. Pe<br>II, and progresse<br>dition of flush w<br>to 4.96m bgl. S<br>n completion. | ermission<br>ed via Rotary<br>ater.<br>ulphurous |
| Notes: For e  | xplanatio                                    | on of symbols an  | d abbr            | eviati                 | ons, se                   | e Key Sheet.   | Sc  | cale: 1:25  |  | l                                       | Logged By: NS   |   | Checked E  | sy: JVV   |  |

|          | AE                  | C                           | <b>O</b> N                               |               | 5th<br>2 C<br>Lee | ECON<br>Floor<br>tity Walk | Л                             | Te<br>Fa<br>W         | el: 0113 391<br>ax: 0113 391<br>ww.aecom.co | 6800<br>6899<br>om     | AGS                      |                                | Bore   |  | No. F-  | BH12  | 4                       |
|----------|---------------------|-----------------------------|--|---------------|-------------------|----------------------------|-------------------------------|-----------------------|---|------------------------|--------------------------|--------------------------------|--|--|---|---|-------------------------|
| ŀ        | Equipment &         | Method                      | 5:                                       |               | LS'               | 11 9AR<br>Project          | Name: Net Ze                  | ro Teessid            | e Onshore                                   | Ground In              | registered user 20       | n - Fron                       | t End Eng  | jineering D  | Design (FEED)   | Job No:                                     |                         |
|          | 0.00 - 0.19 In:     | ulated Har                  | id Tools                                 |               | 1                 | Project                    | Location: Rede                | car, North `          | Yorkshire                                   |                        |                          |                                |  |  |   | 6067  | 8042                    |
|          | 15.00 - 34.00 Ro    | nic Drilling<br>tary Coring | (Hammer ID: GS002)<br>(Hammer ID: GS002) |               | (                 | Client: I                  | BP                            |                       |   |                        |                          |                                |  |  |   |   |                         |
|          |                     |                             |  |               | (                 | Co-ordir<br>E·4568         | nates:<br>58 122              |                       |   | Ground                 | Level (m):               | 7 457                          |  |  | Date Started  | 28/07/2022                                  | 2                       |
|          |                     |                             |  | 1             | 1                 | N: 5253                    | 16.104                        |                       |   |                        |                          | 7.407                          | AOD  |  | Date Comple   | ted: 04/08/2                                | 2022                    |
| -        | In :<br>Depth       | Situ Tes<br>Sample          | ting                                     | Corino<br>TCR | g Infor           | mation<br>Core             |                               | DES                   | CRIPTION                                    | l                      |                          |                                |  | Reduced<br>Level<br>(m)                            | Legend  | Depth<br>(Thick)                            | Backfill/<br>Instrument |
|          | (m)                 | Ref &<br>Type               | and Result                               | SCR<br>RQD    | FI                | Run                        |                               |                       |   |                        |                          |                                |  | (,   |   | (11)  |                         |
|          | - 15.00             |                             | PID = 1.0ppm                             |               |                   | 15.00-<br>16.50            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
|          | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| ł        | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| ł        | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
| Ī        | _                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
|          | _                   |                             |  | 100           |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
| -        | -                   |                             |  | 0<br>0        |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| ł        | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| ł        | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | <u>+</u>                                    |                         |
| Ī        | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
|          | _                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | (4.97)                                      |                         |
|          | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| ł        | _                   |                             |  |               |                   | 16.50-                     | From 16 15                    | m to 16 (             | )7m hali                                    | Pagama                 | otiff loop               | ally fire                      | m  |  |   | <u>-</u>                                    |                         |
| Ī        | _                   |                             |  |               |                   | 18.00                      | F10111 10.45                  | 111 10 10.8           | arin byi.                                   | Decome                 | sun ioca                 | any mi                         |  |  |   | -   |                         |
|          | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
|          | -                   |                             |  |               | CLAY              |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
| ł        | _                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | <u>-</u>                                    |                         |
| ł        | -                   |                             |  | 400           |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
| Į        | -                   |                             |  | 100           |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
|          | -                   |                             |  | 0             |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
|          | 17.47- 17.77        | С                           |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | <u>-</u>                                    |                         |
| 2022     | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| mber     | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
| Nove     | _                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| e: 29    | -                   |                             |  |               |                   | 40.00                      |                               |                       |   |                        |                          |                                |  |  |   | 1-  |                         |
| Date     | -                   |                             |  |               |                   | 18.00-<br>19.50            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| E E      | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| V1.3.    | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| ARY      | _                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   |   |                         |
| LBR      | -                   |                             |  |               |                   |                            |                               |                       |   |                        |                          |                                |  |  |   | -   |                         |
| 4<br>0   | -                   |                             |  | 100<br>41     |                   |                            |                               |                       |   |                        |                          |                                |  | _11 24   |   | - 19 90                                     |                         |
| L AGS    | - 18.80- 19.00<br>- | ES                          |  | 41            | 10                |                            | Very weak lo                  | cally we              | ak fractu                                   | red thinly             | to thickly               | y lami                         | nated  | -11.34   |   |   |                         |
| Z        |                     | с                           |  |               | NI                |                            | dark bluish (<br>fragments. F | rey MUE<br>racture s  | st 0NE<br>set 1: Wid                        | with occ<br>de to clos | asional sl<br>sely space | nell<br>ed, su                 | ıb   |  |   | <b>]</b> _ ∣                                |                         |
| .ibrar   | -                   |                             |  |               |                   |                            | horizontal to                 | 20°, und              | lulating to                                 | planar i               | ough, pa                 | artly of                       | pen to   |  |   | } │   |                         |
|          | -                   |                             |  |               |                   |                            | subrounded                    | fine to m             | edium of                                    | mudsto                 | ne<br>ne                 | angul                          | guiai lu   |  |   |   |                         |
| 5        | -                   |                             |  |               |                   |                            | (REDCAR M                     | UDSTON                | IE FORM                                     | ation)                 |                          |                                |  |  |   | 1   |                         |
| Z        | _                   |                             |  |               | _                 | $\square$                  |                               |                       |   |                        |                          |                                |  |  |   | 1   |                         |
| 11.1     | -                   |                             |  |               | 2                 | 19.50-<br>21.00            |                               |                       |   |                        |                          |                                |  |  |   | <b>}</b> │                                  |                         |
| ect: <   | -                   |                             |  |               |                   |                            | From 19 63                    | m bal <sup>.</sup> Fr | acture se                                   | et 2 prese             | ent: Medi                | um sr                          | aced   |  |   | } │   |                         |
| Pro      | -                   |                             |  |               |                   |                            | sub vertical                  | to 65°, pl            | anar smo                                    | both to ro             | ugh, tigh                | t to cl                        | osed,  |  |   | ₹   |                         |
| 000      |                     |                             |  |               |                   |                            | miniea with (                 | Jiey Slit.            |   |                        |                          |                                |  |  |   | E I   |                         |
| IOLE     | Strike Flow         | r Strikes<br>Remark         | (S                                       | Hol           | iole D<br>e Dia   | Depth                      | of Date                       | Progre<br>Time        | Hole  | Casing                 | Water                    | 1. Sonic                       | c/Rotary Core                                      | Remar<br>(SO/RC) bore                              | KS<br>hole located in the Ma<br>f Remediation Zone F          | in Site area of Te<br>R1B.                  | esworks,                |
| CKET     | Depth               |                             |  | (mr<br>178    | n)<br>3           | Hole (n<br>16.50           | n)                            |                       | Depth (m)                                   | Depth (m               | Depth (m)                | 2. Burie<br>granted            | d Service Insp<br>to progress be                   | ection Pit term<br>orehole via So                  | ninated at 0.19m bgl o<br>nic drilling.                       | n hard stratum. P                           | ermission               |
| 5<br>2   |                     |                             |  |               |                   |                            |                               |                       |   |                        |                          | 3. SO/R<br>Coring t<br>4. Topo | to 34.00m bgl.<br>graphy: Level                    | avanced via So<br>Ground.                          | and anning to 15.00m  | uyi, and progress                           | eu via Rotary           |
| NUA      |                     |                             |  |               |                   |                            |                               |                       |   |                        |                          | 5. Grou<br>6. Slag<br>odour n  | ndwater strike<br>encountered in<br>oted within Ma | s not observed<br>n material reco<br>ade Ground to | during drilling due to<br>overed from ground le<br>3.00m bal. | addition of flush w<br>vel to 4.96m bgl. \$ | vater.<br>Sulphurous    |
| SIS:     |                     |                             |  |               |                   |                            |                               |                       |   |                        |                          | 7. Borel                       | hole backfilled                                    | with bentonite                                     | pellets and arisings u  | pon completion.                             |                         |
| DOLT IL  |                     |                             |  |               |                   |                            |                               | <br>                  | ale: 1:25                                   |                        | ļ.,                      |                                | By: NO   |  | Checks  |   |                         |
| Re<br>Re | Notes: For ex       | planatic                    | n of symbols an                          | d abbr        | eviatio           | ons, see                   | e Key Sheet.                  | 50                    | uic. 1.20                                   |                        |                          | Lugged                         | אט. ואס  |  | Спеске  | y. JVV                                      |                         |

| A                              |                   | C                          | <b>O</b> A                    |                   | 5th<br>2 C<br>Lee                   | ECO<br>Floor<br>City Walk | M  | T<br>F<br>W   | el: 0113 391<br>ax: 0113 391<br>ww.aecom.c                             | 6800<br>6899<br>om                            | AGS  |   | Bore   |   | No. F-E   | 3H12   | 4  |
|--------------------------------|-------------------|----------------------------|-------------------------------|-------------------|-------------------------------------|---------------------------|--|---|--|---|--|---|--|---|---|--|--|
| Equipn                         | nent &            | Methods                    | 8:                            |                   |                                     | Project                   | Name: Net Ze   | ero Teessid   | le Onshore   | Ground Ir                                     | nvestigation                                 | n - Front E   | End Eng  | ineering D  | esign (FEED)  | Job No:  |  |
| 0.00 - 0.<br>0.19 - 1          | 19 Ins<br>5.00 So | ulated Han<br>nic Drilling | d Tools<br>(Hammer ID: GS002) |                   |                                     | Project                   | Location: Red  | lcar, North   | Yorkshire  |   |  |   |  |   |   | 6067   | 8042   |
| 15.00 - 34                     | 4.00 Ro           | tary Coring                | (Hammer ID: GS002             | )                 |                                     | Client:                   | BP   |   |  | Ground  |  |   |  |   | Data Startad:   | 28/07/2022   | )  |
|                                |                   |                            |                               |                   | Ì                                   | E: 4568                   | 358.122  |   |  | Ground  | i Levei (iii).                               | 7.457   | AOD  |   | Date Staned.  | ed: 04/08/2  | 1022   |
|                                | In S              | Situ Test                  | ing                           | Corin             | g Infor                             | n: 525.<br>mation         | 316.104  |   |  |   |  |   |  | Reduced   |   | Depth  | Backfill/  |
| Dept<br>(m)                    | h                 | Sample<br>Ref &<br>Type    | Test Type<br>and Result       | TCR<br>SCR<br>RQD | FI                                  | Core<br>Run               |  | DES   | SCRIPTION  |   |  |   |  | (m)   | Legend  | (Thick)<br>(m)   | Instrument   |
| -<br>-<br>-<br>20.54           |                   | С                          |                               | 100<br>84<br>84   | CLAY<br>3                           |                           | From 20.10<br>CLAY. Sand   | 0m to 20.3<br>d is fine to  | 25m bgl:<br>o coarse.  | Stiff grey                                    | / slightly s                                 | sandy   |  |   |   | -  |  |
| -<br>-<br>-<br>-<br>-<br>21.22 |                   | С                          |                               |                   | CLAY<br>6                           | 21.00-<br>22.50           | From 20.91<br>CLAY. Sand   | m to 21.<br>d is fine to  | 00m bgl:<br>o coarse.  | Stiff grey                                    | / slightly s                                 | sandy   |  |   |   |  |  |
|                                |                   |                            |                               | 99<br>95<br>84    | <u>CLAY</u><br>3                    |                           | From 21.33<br>CLAY. Sand   | 8m to 21.3  | 39m bgl:<br>o coarse.  | Stiff grey                                    | / slightly s                                 | sandy   |  |   |   |  |  |
|                                |                   |                            |                               | 100               | <u>NR</u>                           | 22.50-<br>24.00           | From 22.71   | m to 22.  | 78m bgl:   | Abundar                                       | nt shell fra                                 | agments   | 5.   |   |   |  |  |
|                                |                   |                            |                               | 89                | 0<br>CLAY<br>0<br>CLAY<br>4<br>CLAY | 24.00-                    | From 23.25<br>CLAY. Sand<br>From 23.33<br>From 23.43<br>CLAY. Sand<br>From 23.63 | om to 23.<br>d is fine to<br>d is fine to<br>d is fine to<br>d is fine to<br>d is fine to | 29m bgl:<br>o coarse.<br>43m bgl:<br>45m bgl:<br>o coarse.<br>73m bgl: | Firm gre<br>Abundar<br>Firm gre<br>Stiff grey | y slightly s<br>ht shell fra<br>y slightly s | sandy<br>agments<br>sandy<br>sandy  | 5.   |   |   |  |  |
|                                |                   |                            |                               | 100<br>87<br>75   | 8<br>CLAY<br>7<br>NI                | 25.50                     | From 24.43<br>From 24.43<br>Sandy CLA  | Om to 24.<br>7. Sand is<br>3m to 24.<br>7. Sand is  | 05m bgl:<br>s fine to c<br>45m bgl:<br>s fine to c                     | Horizon<br>oarse.<br>Horizon<br>oarse.        | of stiff gre                                 | ey slight<br>ey slight  | tly  |   |   |  |  |
|                                | Wate              | Strikes                    |                               | ŀ                 | l<br>Iole D                         | l<br>Jiamete              | r  | Progre  | ess  |   |  |   |  | Remar   | ks  | Ⅰ  |  |
| Strike<br>Depth                | Flow              | Remark                     | S                             | Ho<br>(mi         | le Dia<br>n)                        | Depth<br>Hole (           | of Date<br>m) 02-08-2022   | Time 2 17:20  | Hole<br>Depth (m)<br>24.00   | Casing<br>Depth (m<br>24.00                   | Water<br>) Depth (m)<br>2.10                 | 1. Sonic/Re<br>Redcar. Lo<br>2. Buried S<br>granted to<br>3. SO/RC I<br>Coring to 3<br>4. Topogra<br>5. Groundy<br>6. Slag end<br>odour note<br>7. Borehole | otary Core (<br>boated in the<br>ervice Inspo-<br>progress bo<br>borehole ad<br>44.00m bgl.<br>uphy: Level 0<br>vater strikes<br>sountered in<br>d within Ma<br>e backfilled | SO/RC) borel<br>s south west o<br>ection Pit term<br>rerehole via So<br>vanced via So<br>Ground.<br>s not observed<br>material reco<br>de Ground to<br>with bentonite | hole located in the Main<br>I Remediation Zone PR<br>initiated at 0.19m bgl on 1<br>nic drilling.<br>I during drilling to 15.00m bg<br>I during drilling due to ac<br>vered from ground level<br>3.00m bgl. | Site area of Ter<br>18.<br>hard stratum. Pr<br>JI, and progress<br>Idition of flush w<br>to 4.96m bgl. S<br>on completion. | esworks,<br>ermission<br>ed via Rotary<br>rater.<br>Sulphurous |
| Notes:                         | For ex            | planatio                   | n of symbols ar               | nd abb            | reviati                             | ons, se                   | e Key Sheet.   | 50  | Jaie. 1.20   |   |  | годдеа В  | y. IND   |   | Checked   | y. Jvv   |  |

|   |   | C                                      | <b>ON</b>                           |                   | 5th<br>2 C<br>Lee  | Floor<br>Floor<br>ity Walk<br>eds<br>11 9AR     | Tel: 0113 391<br>Fax: 0113 39?<br>www.aecom.c   | 6800<br>6899<br>om Restretutes war   | Bore   | hole  | No. F-E  | 3H124  | 4  |
|---|---|--|-------------------------------------|-------------------|--|---|---|--|--|---|--|--|--|
|   | Equipment & 0.00 - 0.19 Ins 0.19 - 15.00 So   | vlethods<br>ulated Han<br>nic Drilling | 5:<br>d Tools<br>(Hammer ID: GS002) |                   |  | Project  <br>Project                            | Name: Net Zero Teesside Onshore<br>Location: Redcar, North Yorkshire  | Ground Investigation - F   | ront End Engl  | neering De  | esign (FEED)   | JOD NO:<br>6067  | 8042   |
|   | 15.00 - 34.00 Ro  | tary Coring                            | (Hammer ID: GS002)                  |                   | -  | Client: I                                       | BP  |  |  |   | Data Startadu (  | 0007/0000  |  |
|   |   |  |                                     |                   |  | 20-ordir<br>E: 4568                             | 58.122  | Ground Level (m):  | 457 AOD  |   | Date Started: A  | d: 04/08/2   | 2022   |
|   | In S  | Situ Test                              | ing                                 | Corin             | g Infor  | N: 5253<br>mation                               | 16.104  |  |  | Reduced   |  | Depth  | Backfill/  |
|   | Depth<br>(m)  | Sample<br>Ref &<br>Type                | Test Type<br>and Result             | TCR<br>SCR<br>ROD | FI   | Core<br>Run                                     | DESCRIPTION   | I  |  | (m)   | Legend   | (Thick)<br>(m)   | Instrument   |
| -   | -<br>-<br>- 25.42<br>-  | с                                      |                                     |                   | 5<br>NI  | 25.50-<br>27.00                                 |   |  |  |   |  | -  |  |
|   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-                 | ES<br>C                                |                                     | 100<br>93<br>88   | 3<br>CLAY<br>6   |   | From 26.29m to 26.40m bgl:<br>present.<br>From 26.64m to 26.68m bgl:<br>sandy CLAY. Sand is fine to c   | Abundant shell fragn<br>Horizon of stiff grey s<br>oarse.  | nents<br>slightly  |   |  | -<br>-<br>-<br>-<br>-<br>-(15.20)<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |  |
| Y V1.3.GLB    Date: 29 November 2022  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-  |  |                                     | 100<br>93<br>87   | 6<br>CLAY<br>6<br>CLAY<br>3  | 27.00-28.50                                     | From 27.67m to 27.70m bgl:<br>sandy CLAY. Sand is fine to c<br>From 28.05m to 28.13m bgl:<br>sandy CLAY. Sand is fine to c  | Horizon of firm grey s<br>oarse.<br>Horizon of firm grey s<br>oarse.   | slightly<br>slightly   |   |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-                                      |  |
| 0: STANDARD COREHOLE LOG    Project: V11.1 NZT GI.GPJ    LIbrary: NZT AGS 4_0 LIBKARY V | -<br>- 28.59<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | C<br>Strikes<br>Remark                 | s                                   | 100<br>84<br>63   | CLAY<br>7<br>CLAY<br>0<br>CLAY<br>11<br>CLAY<br>11<br>CLAY<br>11<br>CLAY<br>0<br>Hole D<br>E Dia<br>n) | 28.50-<br>30.00<br>iameter<br>Deptho<br>Hole (n | From 28.50m to 28.55m bgl:<br>sandy CLAY. Sand is fine to c<br>From 28.70m to 28.75m bgl:<br>sandy CLAY. Sand is fine to c<br>From 28.84m to 28.88m bgl:<br>sandy CLAY. Sand is fine to c<br>From 29.02m to 29.04m bgl:<br>sandy CLAY. Sand is fine to c<br>From 29.32m to 29.36m bgl:<br>sandy CLAY. Sand is fine to c<br>From 29.73m to 29.77m bgl:<br>sandy CLAY. Sand is fine to c<br>From 29.73m to 29.77m bgl:<br>sandy CLAY. Sand is fine to c | Horizon of soft grey s<br>oarse.<br>Horizon of firm grey s<br>oarse.<br>Horizon of firm grey s<br>oarse.<br>Horizon of soft grey s<br>oarse.<br>Horizon of soft grey s<br>oarse.<br>Horizon of firm grey s<br>oarse. | slightly<br>slightly<br>slightly<br>slightly<br>slightly<br>slightly<br>slightly<br>slightly<br>slightly<br>slightly<br>slightly | Remark<br>SO/RC) borene<br>south west of<br>citon Pit termin<br>rehole via Son<br>avanced via Son<br>Sorund.<br>not observed i<br>material recos<br>Sorund to 3<br>with bentonite p | S S S S S Constant of the Main 3 Remediation Zone PR Inc drilling. ic drilling to 15.00m bg during drilling to 15.00m bg during due to add ered from ground level .00m bgl00m bgl. aelets and arisings upoor | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-        | esworks,<br>ermission<br>ed via Rotary<br>vater.<br>Sulphurous |
| Seport IL   | Notes: For ex   | planatio                               | n of symbols and                    | abbi              | reviatio   | ons. see  | e Key Sheet. Scale: 1:25  |  | ged By: NS   |   | Checked E  | By: JW   |  |

| Equipmen  | EC<br>t & Methods                                |   | 1                           | 5th<br>2 C<br>Lee   | Floor<br>Floor<br>City Walk<br>eds<br>11 9AR<br>Project N | <b>//</b><br>Name: Net Zer   | T<br>F<br>w  | Fel: 0113 391<br>Fax: 0113 39<br>ww.aecom.o   | 6800<br>1 6899<br>com  | AGS<br>REGISTERED USER 202<br>Vestigation  | Bore<br>Sheet:<br>- Front End Eng  | ehole   | No. F-I  | 3H124  | 4   |
|---|--|---|-----------------------------|---|---|--|--|---|--|--|--|---|--|--|---|
| 0.00 - 0.19<br>0.19 - 15.00<br>15.00 - 34.00  | Insulated Han<br>Sonic Drilling<br>Rotary Coring | d Tools<br>(Hammer ID: GS002)<br>(Hammer ID: GS002) | 1                           |   | Project I<br>Client: E                                    | _ocation: Redo<br>3P   | car, North   | Yorkshire   |  |  |  |   |  | 6067   | 8042  |
|   |  |   | _                           |   | Co-ordin<br>E: 4568<br>N: 5253                            | nates:<br>58.122<br>16.104   |  |   | Ground   | Level (m):   | 7.457 AOD  |   | Date Started:<br>Date Complete   | 28/07/2022<br>ed: 04/08/2                                | 022   |
| Depth<br>(m)  | In Situ Test<br>Sample<br>Ref &<br>Type          | ing<br>Test Type<br>and Result                      | Corine<br>TCR<br>SCR<br>ROD | g Infor<br>FI   | mation<br>Core<br>Run                                     |  | DES  | SCRIPTION   | N  |  |  | Reduced<br>Level<br>(m)   | Legend   | Depth<br>(Thick)<br>(m)                                  | Backfill/<br>Instrument                           |
| G    Project. V11.1 NZT GI.GPJ    Library: NZT AGS 4_0 LIBRARY V1.3.CLB    Date. 29 November 2022 | C  |   | 1000<br>91<br>91<br>91      | 0<br>CLAY<br>NI<br>0<br>CLAY<br>0<br>CLAY<br>0<br>NI<br>CLAY<br>0<br>NI<br>CLAY<br>0<br>NI<br>CLAY<br>0<br>NI<br>7<br>0<br>NI<br>5<br>NI<br>0<br>CLAY<br>11 | 30.00-<br>31.50<br>31.50<br>33.00<br>33.00-<br>34.00      | From 30.18<br>sandy CLAY<br>From 30.41<br>sandy CLAY<br>From 31.63<br>sandy CLAY<br>From 31.71<br>sandy CLAY<br>From 32.09<br>sandy CLAY<br>From 32.39<br>sandy CLAY<br>From 32.52<br>sandy CLAY | m to 30.<br>Sand is<br>m to 30.<br>Sand is<br>m to 31.<br>Sand is<br>m to 31.<br>Sand is<br>m to 32.<br>Sand is<br>m to 32.<br>Sand is<br>m to 32.<br>Sand is<br>m to 32.<br>Sand is<br><b>m</b> to 33.<br><b>Sand is</b><br><b>End</b><br>(This | 24m bgl:<br>s fine to o<br>43m bgl:<br>s fine to o<br>65m bgl:<br>s fine to o<br>75m bgl:<br>s fine to o<br>46m bgl:<br>s fine to o<br>57m bgl:<br>s fine to o | Horizon<br>coarse.<br>Horizon<br>coarse.<br>Horizon<br>coarse.<br>Horizon<br>coarse.<br>Horizon<br>coarse.<br>Horizon<br>coarse.<br>Horizon<br>coarse.<br>Horizon<br>coarse. | of soft gre<br>of soft gre<br>of soft gre<br>of firm gre<br>of firm gre<br>of firm gre<br>of soft gre<br>of soft gre | ey slightly<br>ey slightly<br>ey slightly<br>ey slightly<br>ey slightly<br>ey slightly<br>ey slightly<br>ey slightly   | 26.54   |  | 34.00  |   |
| Ŭ<br>u W<br>j<br>Strike FI  | ater Strikes<br>ow Remark                        | s   | Hol                         | lole D<br>e Dia   | iameter<br>Depth o  | of Date  | Progre   | ess<br>Hole   | Casing   | Water  | 1. Sonic/Rotary Core<br>Redcar Located in th   | Remar<br>(SO/RC) bore   | KS<br>hole located in the Main<br>f Remediation Zone PR  | Site area of Tee   | esworks,  |
| Debth ID: STANDARD CORE   |  |   | (mr<br>146                  | n);   | Hole (m<br>34.00  | 1)<br>03-08-2022   | 17:00  | Depth (m<br>34.00   | <u>)) Depth (m</u><br>34.00  | ) Depth (m)<br>1.20  | 2. Buried Service Insy<br>granted to progress b<br>3. SO/RC borehole a<br>Coring to 34.00m bg<br>4. Topography. Level<br>5. Groundwater strike<br>6. Slag encountered i<br>odour noted within Mr<br>7. Borehole backfillec | ection Pit term<br>orehole via So<br>dvanced via So<br>Ground.<br>s: not observer<br>n material recc<br>ade Ground to<br>with bentonite | d during drilling to 15.00m by<br>nic drilling to 15.00m by<br>d during drilling due to a<br>wered from ground leve<br>3.00m bgl.<br>pellets and arisings up | dition of flush w<br>I to 4.96m bgl. S<br>on completion. | ermission<br>ed via Rotary<br>ater.<br>Sulphurous |

| ΔΞ   | 7                       | <b>MO</b>  | <b>A</b>            | AECC<br>5th Floor              | M   | Te   | el: 0113 391                                       | 6800  |  | Bore   | ehole   | No. F-E  | 3H12            | 5         |
|--|-------------------------|--|---------------------|--------------------------------|---|--|--|---|--|--|---|--|-----------------|-----------|
|  |                         |  |                     | 2 City Wa<br>Leeds<br>LS11 9AF | lk<br>R   | Fa   | ax: 0113 391<br>ww.aecom.c                         | 6899<br>om                                      | AGS<br>REGISTERED USER 2022                          | Sheet:   | 1 of 6  |  |                 |           |
| Equipment &  | Method                  | s:   |                     | Projec                         | t Name: Net Z   | ero Teessid  | le Onshore   | Ground In                                       | vestigation  | - Front End Eng  | ineering [  | Design (FEED)  | Job No:         |           |
| 0.00 - 0.05 In<br>0.05 - 15.00 S   | sulated Har             | nd Tools<br>(Hammer ID: GS002)   |                     | Projec                         | t Location: Re  | dcar, North  | Yorkshire  |   |  |  |   |  | 6067            | 8042      |
| 15.00 - 29.20 R  | otary Coring            | g (Hammer ID: GS002)   |                     | Client                         | : BP  |  |  | Cround  |  |  |   | Data Startadi  | 04/08/2022      | )         |
|  |                         |  |                     | E: 456                         | 6936.515  |  |  | Ground  | Lever (III).   | 7.311 AOD  |   | Date Started.  | ed: 10/08/2     | -         |
| In   | Situ Tes                | ting   | Coring I            | N: 525                         | 5314.209<br>n   |  |  |   |  |  | Reduced   |  | Depth           | Backfill/ |
| Depth<br>(m)   | Sample<br>Ref &<br>Type | Test Type<br>and Result  | TCR<br>SCR I<br>RQD | -I Core<br>Run                 | •   | DES  | CRIPTION   |   |  |  | Level<br>(m)  | Legend   | (Thick)<br>(m)  | Instrumer |
|  |                         |  |                     |                                | MADE GRO<br>silty angula<br>slag, brick<br>are angula<br>coarse | OUND: Da<br>ar to subar<br>and concr<br>r to subrou    | ark grey n<br>ngular me<br>rete with a<br>unded of | nottled bi<br>dium to<br>a high co<br>brick and | rown sligh<br>coarse GF<br>bble conte<br>d slag. Sar | tly sandy<br>RAVEL of<br>ent. Cobbles<br>nd is fine to |   |  | -<br>- (0.46)   |           |
| -0.50  |                         | PID = 1.2ppm   |                     |                                | (MADE GR  | OUND: Bla  | ack and c  | lark grey                                       | sandy an   | gular to   | 6.85  |  | 0.46            |           |
|  |                         |  |                     |                                | subrounde<br>concrete au<br>Cobbles ar                          | d fine to c<br>nd limesto<br>e angular                 | oarse GF<br>one with n<br>to suban                 | AVEL of<br>nedium c<br>qular of l               | f slag, bric<br>obble con<br>brick and s             | k, mortar,<br>itent.<br>slag. Sand is                  |   |  | (0.37)          |           |
|  |                         |  |                     |                                | fine to coar<br>(MADE GR  | rse<br>OUND)   |  | <u> </u>  |  |  | 6.48  |  | - 0.83          |           |
| -1.00  |                         | PID = 3.2ppm   |                     |                                | MADE GRO<br>Gravel is a<br>conrete and<br>(MADE GR              | OUND: Bla<br>ngular to s<br>d limeston<br><b>OUND)</b> | ack grave<br>subround<br>ie.                       | elly silty fi<br>ed fine to                     | ine to coar<br>o coarse o                            | rse SAND.<br>f slag, brick,                            |   |  |                 |           |
| -1.50  |                         | PID = 3.0ppm   |                     |                                |   |  |  |   |  |  |   |  | (1.47)          |           |
| -2.00  |                         | PID = 2.9ppm   |                     |                                |   |  |  |   |  |  |   |  |                 |           |
| -2.50  |                         | PID = 4.0ppm   |                     |                                | MADE GRO<br>gravelly fin<br>subrounde<br>(MADE GR               | OUND: Ye<br>e to coars<br>d medium<br><b>OUND)</b>     | ellowish b<br>e SAND.<br>to coarse                 | rown and<br>Gravel is<br>e of slag              | d dark brov<br>s angular t                           | wn mottled<br>to                                       | . 5.01  |  | (0.70)          |           |
| -3.00  |                         | PID = 5.1ppm   |                     |                                | MADE GRO  |  | ark grey a   | ngular to                                       | o subround   | ded medium   | 4.31  |  | 3.00            |           |
| 3.20   |                         |  |                     |                                | are subang  | jular of sla<br>OUND)                                  | ag   | in nigh oc                                      |  | ent. Cobbles   | 3.97  |  | 3 34            |           |
| -  |                         |  |                     |                                | MADE GRO<br>gravelly fin<br>subrounder<br>(MADE GR              | OUND: Ye<br>e to coars<br>d medium<br><b>OUND)</b>     | ellowish b<br>e SAND.<br>to coarse                 | rown and<br>Gravel is<br>e of slag              | d dark brov<br>s angular t                           | wn mottled<br>to                                       |   |  |                 |           |
| <b>3.80-</b> 4.00<br>3.80<br>3.90<br><b>-</b> 4.00- 4.50   | D<br>ES<br>B            | PID = 8.4ppm<br>SPT(C) N>50<br>8116/24,26 for<br>50mm  |                     |                                | NOTE: Pro   | oposed rei   | mediatior  | n level 3.8                                     | 8m AOD.  |  |   |  |                 |           |
|  |                         |  |                     |                                |   |  |  |   |  |  |   |  | (1.86)          |           |
| <b>-4.50-</b> 4.80   | D                       | SPT(C) N>50<br>4,11/28,22 for<br>65mm  |                     |                                |   |  |  |   |  |  |   |  |                 |           |
| <b>4.80-</b> 5.00<br>4.80  | B<br>ES                 | PID = 15.8ppm  |                     |                                |   |  |  |   |  |  |   |  |                 |           |
| Wate<br>Strike   Flow  | r Strikes<br>Remark     | s<br><s< td=""><td>Hol<br/>Hole I</td><td>e Diamet<br/>Dia Dept</td><td>er<br/>h of Date</td><td>Progre<br/>Time</td><td>ess<br/>Hole</td><td>Casing</td><td>Water</td><td>1. Sonic/Rotary Core</td><td>Rema<br/>(SO/RC) bore</td><td>rks<br/>ehole located in the Main</td><td>Site area of Te</td><td>esworks,</td></s<> | Hol<br>Hole I       | e Diamet<br>Dia Dept           | er<br>h of Date   | Progre<br>Time   | ess<br>Hole  | Casing  | Water  | 1. Sonic/Rotary Core                                   | Rema<br>(SO/RC) bore  | rks<br>ehole located in the Main                     | Site area of Te | esworks,  |
| Image: Depth       (mm)       Hole (m)       Depth (m) <thdepth (m)<="" th=""> <thdepth (m)<="" th=""></thdepth></thdepth> |                         |  |                     |                                |   |  |  |   |  |  | 1B.<br>hard stratum. P<br>gl, and complete<br>Idition of flush w<br>to 5.02m bgl. f<br>on completion. | ermission<br>ed via Rotary<br>vater.<br>No olfactory |                 |           |
| Notoo: Ecr. c  | valenetia               | n of ourse old on  |                     | iotiono -                      |   | Sc   | ale: 1:25  |   |  | ogged By: NS   |   | Checked I  | By: JW          |           |

| ΔΞ                                |                     | 5                                 | <b>A</b>       | A<br>5th   | ECO               | М                  | Te         | el: 0113 391               | 6800                    |                    |                                  | Bore  | hole                             | No.   | F-E  | 3H12                             | 5                       |
|-----------------------------------|---------------------|-----------------------------------|----------------|------------|-------------------|--------------------|------------|----------------------------|-------------------------|--------------------|----------------------------------|---|----------------------------------|---|--|----------------------------------|-------------------------|
|                                   |                     |                                   |                | 2 C<br>Lee | ity Wall<br>eds   | ĸ                  | Fa         | ax: 0113 391<br>ww.aecom.c | 6899<br>om              |                    | 922                              | Sheet: 2  | 2 of 6                           |   |  |                                  |                         |
| Equipment &                       | Method              | s:                                |                |            | Project           | Name: Net Zei      | ro Teessid | e Onshore                  | Ground In               | vestigatior        | n - Fron                         | t End Eng   | ineering [                       | Design (FEE   | ED)  | Job No                           |                         |
| 0.00 - 0.05 In<br>0.05 - 15.00 S  | sulated Har         | (Hammer ID: GS002)                |                |            | Project           | Location: Red      | car, North | Yorkshire                  |                         |                    |                                  |   |                                  |   |  | 6067                             | 78042                   |
| 15.00 - 29.20 R                   | otary Coring        | (Hammer ID: GS002)                |                |            | Co-ord            | inates:            |            |                            | Ground                  | Level (m):         |                                  |   |                                  | Date Sta  | arted: (                                   | 04/08/202                        | 2                       |
|                                   |                     |                                   |                |            | E: 4569<br>N: 525 | 936.515<br>314.209 |            |                            |                         |                    | 7.311                            | AOD   |                                  | Date Co   | mplete                                     | d: 10/08/2                       | 2022                    |
| In<br>Donth                       | Situ Tes<br>ISample | ting                              | Coring<br>TCR1 | Infor      | mation            |                    | DES        | CRIPTION                   |                         |                    |                                  |   | Reduced<br>Level                 | Lege  | end  | Depth<br>(Thick)                 | Backfill/<br>Instrument |
| (m)                               | Ref &<br>Type       | Test Type<br>and Result           | SCR<br>RQD     | FI         | Run               |                    |            |                            |                         |                    |                                  |   | (11)                             |   | ~~~  | (m)                              |                         |
| - 5.10- 5.30                      | D                   |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   | 0.44                             |   | $\bigotimes$                               | -                                |                         |
| - 5 30                            | FS                  | PID = 6.9ppm                      |                |            |                   | Dense yellov       | wish brow  | wn mottle                  | d dark gr               | ey fine to         | o medi                           | ium   | 2.11                             | <u>, , , , , , , , , , , , , , , , , , , </u>             | · · · · ·                                  | _ 5.20                           |                         |
| -                                 | 20                  |                                   |                |            |                   | (TIDAL FLA         | T DEPOS    | ai snell fr<br>SITS)       | agments                 |                    |                                  |   |                                  |   | · · · ·                                    | -                                |                         |
| -5.50- 6.00                       | В                   |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | · · · ·                                    | _ (0.80)                         |                         |
| -                                 |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | · · · ·                                    | -                                |                         |
| -                                 |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | · · · ·                                    | -                                |                         |
| -6.00                             | SS                  | SPT(S) N=3                        |                |            |                   | ) /                |            |                            |                         |                    |                                  |   | 1.31                             | · · · · · · · ·   | · · · · ·                                  | 6.00                             |                         |
| -                                 |                     | 1,1/<br>1,0,1,1                   |                |            |                   | with some p        | ockets of  | f carbona                  | ceous m                 | aterial            | organic                          | CLAY  |                                  | × × ×   | · ×:                                       | -                                |                         |
| - <b>6.30-</b> 6.50               | D                   | PID = 3.8ppm                      |                |            |                   | (IIDAL FLA         | I DEPOS    | 5115)                      |                         |                    |                                  |   |                                  | × · × · ·   | ×.<br>. – ×.                               | -                                |                         |
| 6.30                              | ES                  |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | <u> </u>  | <u> </u>                                   | - (0.94)                         |                         |
| -6.50- 6.90<br>-                  | В                   |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | <u>x ^ x</u> ^  | <u>-,x</u> .<br><del>`</del>               | -                                |                         |
| -                                 |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | × · · · × ·   | · × · · · ×                                | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   | 0.07                             | × <u>×</u> ××   | <u> </u>                                   | -                                |                         |
| -7.00- 7.10                       | D                   |                                   |                |            |                   | Dense yellov       | wish brow  | wn slightl                 | y gravelly              | fine to c          | oarse                            | silty   | 0.37                             |   | • <u>*</u> • =                             | -<br>-                           |                         |
| - <b>7.10-</b> 7.50<br>7.10       | B<br>ES             | PID = 5.1ppm                      |                |            |                   | to subrounde       | ed fine to | o coarse o                 | agments.<br>of chert, r | nudstone           | s suba<br>e and                  | angular   |                                  |   | · · · · ·                                  | -                                |                         |
| F                                 |                     |                                   |                |            |                   | sandstone          | T DEPOS    | SITS)                      |                         |                    |                                  |   |                                  | · · · · · ·   | ο<br>·                                     | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | · · · · ·   | <br>o                                      | -                                |                         |
| -7.50-7.60<br>-7.50<br>-7.60-8.10 | D<br>SS<br>B        | SPI(S) N=46<br>2,3/<br>8 11 12 15 |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | · · · · ·                                  | -                                |                         |
|                                   |                     | 0,11,12,10                        |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | ο  | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | · · · · ·   | <br>0 <sup>.</sup>                         | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | · · · · · · · ·   | . α .                                      | (2.06)                           |                         |
| S⊢<br>=<br>- <b>8.20-</b> 8.40    | D                   | PID = 4.1ppm                      |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | o'.'.<br>                                  | -                                |                         |
| 8.20                              | ES                  |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | · · ~ ·                                    | -                                |                         |
| 8.40- 9.00                        | В                   |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | · · · · · · ·   | . α .                                      | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | o <sup>*</sup> . <sup>*</sup> .<br>• • • • | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | · · · · · ·   | · α<br>· · ·                               | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | · · · · · ·   | · · ·                                      | -                                |                         |
| <b>9.00</b> - 9.10                | D<br>SS             | PID = 2.6ppm<br>SPT(S) N=17       |                |            |                   | Firm brown s       | slightly s | andy clay                  | ey SILT.                | Sand is f          | fine to                          | coarse  | -1.69                            | · · · · ·<br>× <u>· · · × · ·</u>                         | <u>~```</u><br>—X``X`                      | _ 9.00                           |                         |
| 9.10-9.70                         | В                   | `1,1/<br>2,5,5,5                  |                |            |                   | (TIDAL FLAT        | T DEPOS    | SITS)                      |                         |                    |                                  |   |                                  | × ×<br>××   | ×.<br>×<br>_                               | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | × × ×   |  | -                                |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | * ^ * *<br>· * · · *                                      | · <u>x</u><br>- × · <u>v</u>               | (0.89)                           |                         |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  |   | · × ·<br>- × ·<br>- × ×                    | -                                |                         |
| 9.70- 9.80<br>9.80- 10 50         | D<br>B              |                                   |                |            |                   |                    |            |                            |                         |                    |                                  |   |                                  | × <u>×</u> × ×  | _×_`*                                      | -                                |                         |
|                                   |                     |                                   |                |            |                   | Dense vellov       | wish brow  | wn sliahtl                 | v gravelly              | fine to o          | oarse                            | siltv   | -2.58                            |   | ×  | 9.89                             |                         |
| Wate                              | r Strikes           | l                                 |                | ole D      | i<br>amete        | er                 | Progre     | ess                        | , <u>a.a.</u>           |                    | 1.00                             | /Poten: C (   | Rema                             | rks   |  | ite area of T                    | aswork:                 |
| Depth                             | Remark              | S                                 | Hole<br>(mm    | )<br>Dia   | Depth<br>Hole (   | of Date<br>m)      | Ime        | Depth (m)                  | Casing<br>Depth (m)     | vvater<br>Depth (m | ) Redcar.<br>2. Buried           | Located in the                                      | south east of<br>ection Pit terr | note located in 1<br>of Remediation 2<br>minated at 0.05n | zie ivialn S<br>Zone PR1I<br>n bgl on h    | B.<br>ard stratum. F             | Permission              |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    | 3. SO/R<br>Coring to<br>4. Topor | C borehole ad<br>c 29.20m bgl.<br>graphy: I evel (  | vanced via S<br>Ground           | onic drilling to 1  | 5.00m bgl                                  | , and complet                    | ed via Rotary           |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    | 5. Groun<br>6. Slag e            | ndwater strikes<br>encountered in<br>e of contamina | not observe<br>material reco     | d during drilling o<br>overed from gro                    | due to add<br>ound level t                 | lition of flush<br>to 5.02m bgl. | water.<br>No olfactory  |
|                                   |                     |                                   |                |            |                   |                    |            |                            |                         |                    | 7. Boreh                         | ole backfilled                                      | with bentonite                   | e pellets and aris  | sings upor                                 | n completion.                    |                         |
|                                   |                     |                                   |                | -          |                   |                    | 9          | ale: 1.25                  |                         |                    | Lonned                           | BV: NS  |                                  | Ch  | ecked R                                    | w: .IW                           |                         |
| Notes: For e                      | kplanatic           | on of symbols an                  | d abbre        | eviati     | ons, se           | e Key Sheet.       | 30         |                            |                         |                    | -ogyeu                           | -y. 140   |                                  |   |  |                                  |                         |

| ΛΞ  |  | 'n   | A                    | AEC                          | OM  |   | т  | ol: 0112 201  | 6900                                       |                                    | Во  | rehole   | No. F-B  | 3H12  | 5  |
|---|--|--|----------------------|------------------------------|---|---|--|---|--|------------------------------------|---|--|--|---|--|
| Equipment &   | Method                                       |  |                      | 2 City V<br>Leeds<br>LS11 9/ | "<br>/alk<br>\R<br>act N  | ame <sup>,</sup> Net Zer  | Fi<br>W  | ax: 0113 391<br>ww.aecom.c  | 0800<br>I 6899<br>om                       |                                    | Sheet   | : 3 of 6   | Design (FEFD)  | loh No:   |  |
| 0.00 - 0.05 In<br>0.05 - 15.00 Se<br>15.00 - 29.20 Re   | sulated Har<br>onic Drilling<br>otary Coring | s.<br>nd Tools<br>(Hammer ID: GS002)<br>j (Hammer ID: GS002)   |                      | Proj                         | ect Lo<br>nt: Bl  | ocation: Redo<br>P  | car, North   | Yorkshire   | Ground in                                  | vesugation                         |   | ingineering i  |  | 60678   | 8042   |
|   |  |  |                      | Co-c<br>E: 4<br>N: 5         | ordina<br>5693<br>2531  | ates:<br>6.515<br>4.209   |  |   | Ground                                     | Level (m):                         | 7.311 AO  | D  | Date Started:<br>Date Complete   | 04/08/2022<br>ed: 10/08/2   | 022  |
| In<br>Depth<br>(m)  | Situ Tes<br>Sample<br>Ref &                  | ting<br>Test Type<br>and Result  | Coring<br>TCR<br>SCR | FI Co                        | ion<br>re<br>in   |   | DES  | SCRIPTION   | I  |                                    |   | Reduced<br>Level<br>(m)  | Legend   | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrumen                             |
| (m)<br>10.00<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-                     | D<br>SS<br>B<br>ES<br>D<br>UT100<br>B        | and Result<br>PID = 2.1ppm<br>SPT(S) N=16<br>1,2/<br>3,4,4,5<br>PID = 2.5ppm<br>PID = 1.2ppm<br>100 % recovery<br>PID = 1.6ppm | ROD                  |                              | In Solution | From 11.21  | m to 11.4<br>rery soft<br>is fine-c                                | al shell fr<br>ded fine-o<br>SITS)<br>46m bgl:<br>brown mo<br>coarse<br>SITS) | agments<br>coarse of                       | Gravel i<br>chert, m               | is<br>udstone and   | -4.15  |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-           |  |
| - 13.40- 13.50<br>- 13.50- 13.60<br>- 13.50- 13.95<br>- 13.60- 14.11<br>- 13.60- 14.11<br>- 14.00 | D<br>UT100<br>B                              | 90 % recovery<br>PID = 1.1ppm  |                      |                              | F   | From 13.50  | m bgl: Be  | ecomes f  | irm locall                                 | y stiff.                           |   |  |  |   |  |
| 20 14.11- 14.90   | ES<br>D                                      |  |                      |                              | S<br>s<br>a<br>(  | Stiff locally v<br>andy slightl<br>ubrounded<br>nd limestor<br>TILL: DEVE | ery stiff ı<br>y gravell<br>fine to c<br>ie. Sand<br><b>NSIAN)</b> | reddish b<br>ly CLAY.<br>oarse of i<br>is fine to                             | rown mo<br>Gravel is<br>mudstone<br>coarse | ttled grey<br>subangu<br>ə, sandst | / slightly<br>ular to<br>one, chert   | 6.80   |  | + 14.11   |  |
| Wate  | r Strikes<br>Remark                          | (S   | Hole                 | ole Diam                     | eter  | f Date  | Progre   | ess<br>Hole   | Casing                                     | Water                              | 1. Sonic/Rotary C   | Rema   | rks<br>ehole located in the Main   | Site area of Tee  | esworks,   |
|   |  |  | 178                  | 15.                          | <u>e (m)</u><br>00  | 04-08-2022  | 17:00<br>12:30   | Depth (m)<br>13.50<br>15.00   | ) Depth (m<br>13.00<br>15.00               | 2.90<br>2.70                       | Redcar. Located i<br>2. Buried Service<br>granted to progree<br>3. SO/RC borehol<br>Coring to 29.20m<br>4. Topography: Le<br>5. Groundwater st<br>6. Slag encounter<br>evidence of conta<br>7. Borehole backf | n the south east of<br>Inspection Pit tern<br>s borehole via S<br>bgl.<br>vel Ground.<br>rikes not observe<br>d in material rec<br>mination.<br>Iled with bentonit | of Remediation Zone PR<br>minated at 0.05m bgl on<br>noic drilling,<br>sonic drilling to 15.00m bg<br>d during drilling due to ac<br>overed from ground leve<br>e pellets and arisings upo | IB.<br>hard stratum. Pe<br>JI, and complete<br>Idition of flush w<br>to 5.02m bgl. N<br>n completion. | ermission<br>d via Rotary<br>ater.<br>lo olfactory |
| Notes: For ex   | planatic                                     | on of symbols an   | d abbre              | viations,                    | see   | Key Sheet.  | Sc   | ale: 1:25   |  |                                    | Logged By: N  | S  | Checked  | ∃y: JW  |  |

|   | Δ   |                | 1                          | <b>N</b>                      | A          | A<br>5th             | ECO<br>Floor             | М   | т  | Fel: 0113 391   | 6800  |  |  | Bore  | ehole  | No. F   | -BH12   | 25  |
|---|---|----------------|----------------------------|-------------------------------|------------|----------------------|--------------------------|---|--|---|---|--|--|---|--|---|---|---|
|   |   |                |                            |                               |            | 2 C<br>Lee           | ity Walk<br>ds<br>11 94R | ζ.  | F  | ax: 0113 39<br>ww.aecom.c   | 1 6899<br>om  | AGS  | 2012   | Sheet:  | 4 of 6   |   |   |   |
|   | Equipm  | ent & I        | Methods                    | :                             |            |                      | Project                  | Name: Net Ze  | ro Teessid   | de Onshore  | Ground In   | vestigatio   | n - Front  | End Eng   | jineering D  | Design (FEED)   | ) Job No  | D:  |
|   | ).00 - 0.0<br>).05 - 15.  | 5 Ins<br>00 So | ulated Han<br>nic Drilling | d Tools<br>(Hammer ID: GS002) |            | F                    | Project                  | Location: Red   | car, North   | Yorkshire   |   |  |  |   |  |   | 606   | 78042   |
|   | 15.00 - 29.   | 20 Ro          | tary Coring                | (Hammer ID: GS002)            |            |                      | Client:                  | BP  |  |   | Ground  | Level (m)  |  |   |  | Date Starte   | d: 04/08/202  | 22  |
|   |   |                |                            |                               |            | Ì                    | E: 4569                  | 936.515   |  |   | Cround  | Lover (iii)  | 7.311  | AOD   |  | Date Comp   | leted: 10/08  | /2022   |
| ┢   |   | In S           | Situ Test                  | ing                           | Corin      | g Infor              | n: 5253<br>mation        | 314.209   |  |   |   |  |  |   | Reduced  |   | Depth   | Backfill/   |
|   | Depth   | ı              | Sample<br>Ref &            | Test Type                     | TCR<br>SCR | FI                   | Core                     |   | DES  | SCRIPTION   | 1   |  |  |   | (m)  | Legend  | (Thick)<br>(m)  | Instrument  |
| +   | 15.00   |                | Туре                       | and Result<br>PID = 0.8ppm    | RQD        |                      | Run                      |   |  |   |   |  |  |   |  | <u></u>   |   |   |
| LG I Grou'l Library: NZTASS 4.0 LIBRARY V1:3/GLB   Date: 29 November 2022 | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | 16.64          | C<br>ES                    |                               | 100 89 89  | NI<br>0<br>CLAY<br>0 | 18.00-<br>19.50          | Pressureme<br>pocket drille<br>Very weak lo<br>dark bluish o<br>closely spac<br>open to clos<br>subangular<br>(REDCAR M<br>From 18.34<br>slightly grav<br>subrounded<br>coarse.<br>Fracture se<br>vertical to 7(<br>infilled with o<br>From 19.33 | ocally we<br>bocally we<br>grey MUI<br>sed, infille<br>to subrou<br>luDSTOM<br>in to 18.4<br>elly sligh<br>fine to n<br>t 2 prese<br>0°, plana<br>grey silt. | (HPD) co<br>T2-101 co<br>T2-101 co<br>DSTONE<br>horizonta<br>ed with gr<br>unded fin<br>NE FORM<br>41m bgl:<br>nedium of<br>nedium of<br>ent: Medium<br>or<br>ent: Medium<br>rough to<br>40m bgl: | red thinly<br>Fracture<br>I to 20°, p<br>ey grave<br>e to med<br>ATION)<br>Horizon o<br>o smooth<br>Horizon o | at 16.300<br>to thickl<br>e set 1: V<br>olanar ro<br>ly silt. G<br>um of m<br>of stiff da<br>ravel is s<br>ravel is<br>ravel is s<br>rav | w bgl. 1<br>ly lamin<br>Vide to<br>ugh, pa<br>ravel is<br>udstone<br>ark grey<br>subang<br>l is fine<br>ed, sub<br>closed,     | Test<br>ated<br>artly<br>e<br>,<br>ular to<br>to  | -10.63   |   |   |   |
|   | 19.55   |                | с                          |                               |            |                      | 19.50-                   | slightly sand   | ly CLAY.   | Sand is   | fine to co  | arse.  | 0,1  |   |  |   |   |   |
| 5   |   |                |                            |                               |            |                      | 21.00                    | From 19.40  | m bgl: O   | Occasiona   | l shells a  | nd shell   | fragme   | nts   |  |   | ₽   |   |
|   |   |                |                            |                               |            |                      |                          | present.  |  |   |   |  |  |   |  |   | ₽   |   |
| 2   |   |                |                            |                               |            |                      |                          |   |  |   |   |  |  |   |  |   |   |   |
|   | Strike  | Water          | Strikes<br>Remark          | s                             | Hol        | lole D<br>e Dia      | iamete<br>Depth          | of Date   | Progre   | ess   | Casing  | Water  | 1. Sonic/F   | Rotary Core   | Remar<br>(SO/RC) bore  | ks<br>hole located in the f   | Main Site area of T   | eesworks,   |
|   | Depth   |                |                            | n of ourse -1-                | (mr        | n)                   | Hole (I                  | 08-08-2022  | 2 16:30  | Depth (m<br>19.50   | Depth (m<br>15.00   | 3.18   | Redcar. L<br>2. Buried<br>granted to<br>3. SO/RC<br>Coring to<br>4. Topogr<br>5. Ground<br>6. Slag er<br>evidence<br>7. Boreho | ocated in th<br>Service Insp<br>o progress b<br>borehole ad<br>29.20m bgl.<br>aphy: Level<br>hocountered in<br>of contamin-<br>ale backfilled | e south east of<br>rection Pit term<br>orrehole via So<br>dvanced via So<br>Ground.<br>s not observec<br>n material reco<br>ation.<br>with bentonite | f Remediation Zone<br>inated at 0.05m bg<br>inated at 0.05m bg<br>onic drilling to 15.00<br>d during drilling due<br>overed from ground<br>e pellets and arising<br>Check | PR1B.<br>I on hard stratum.<br>m bgl, and complet<br>to addition of flush<br>level to 5.02m bgl<br>s upon completion. | Permission<br>eted via Rotary<br>I water.<br>. No olfactory |

|                  | AE                   | C                   | <b>ON</b>               | 1          | <b>A</b><br>5th<br>2 C | ECO<br>Floor<br>City Walk | <b>VI</b><br>Tel: 0113 391 6800<br>Fax: 0113 391 689 |   | Bore   | hole                            | No. F-E  | 3H125                       | 5          |
|------------------|----------------------|---------------------|-------------------------|------------|------------------------|---------------------------|--|---|--|---------------------------------|--|-----------------------------|------------|
|                  |                      |                     |                         | <b>-</b>   | Lee<br>LS <sup>-</sup> | eds<br>11 9AR             | www.aecom.com  | REGISTERED USER 2022  | Sheet: 5   | of 6                            |  |                             |            |
|                  | Equipment &          | Method:             | S:                      |            |                        | Project                   | Name: Net Zero Teesside Onshore Gro                  | ound Investigation - From                                   | nt End Engi  | neering D                       | esign (FEED)                                     | Job No:                     |            |
|                  | 0.05 - 15.00 S       | onic Drilling       | (Hammer ID: GS002)      |            |                        | Project                   | Location: Redcar, North Yorkshire                    |   |  |                                 |  | 60678                       | 042        |
|                  | 15.00 - 29.20 R      | otary Coring        | (Hammer ID: GS002)      |            |                        | Client:                   | BP   |   |  |                                 | Data Otarta da (                                 | 4/00/0000                   |            |
|                  |                      |                     |                         |            |                        | Co-ordi<br>E: 4569        | 36.515   | Fround Level (m):<br>7.31                                   | 1 AOD  |                                 | Date Started: (                                  | )4/08/2022                  | 222        |
|                  |                      | O:+ T               | t                       |            |                        | N: 5253                   | 14.209   |   |  | Deduced                         |  |                             | )ZZ        |
|                  | III<br>Denth         | Silu Tes<br>ISample | ung                     | TCR        | g inior                | malion                    | DESCRIPTION  |   |  | Level                           | Legend   | (Thick)                     | Instrument |
|                  | (m)                  | Ref &               | Test Type<br>and Result | SCR        | FI                     | Run                       |  |   |  | (11)                            | 5  | (m)                         |            |
| Ì                |                      | Туре                |                         | RQD        |                        |                           |  |   |  |                                 |  |                             |            |
| ĺ                | _                    |                     |                         | 83         | 5                      |                           |  |   |  |                                 |  |                             |            |
|                  | _                    |                     |                         | 83<br>58   |                        |                           |  |   |  |                                 |  |                             |            |
|                  | _                    |                     |                         | 50         |                        |                           |  |   |  |                                 |  | _                           |            |
|                  | _                    |                     |                         |            |                        |                           | Processivementer text (HPD) compl                    | lated at 20 40m bal   | Teet   |                                 |  | _                           |            |
|                  | -                    |                     |                         |            |                        |                           | pocket drilled using T2-101 core l                   | barrel.   | 1651   |                                 |  | -                           |            |
|                  | -                    |                     |                         |            |                        |                           | · -  |   |  |                                 |  | -                           |            |
|                  | -                    |                     |                         |            |                        |                           |  |   |  |                                 |  | -                           |            |
|                  | -                    |                     |                         |            | NR                     |                           |  |   |  |                                 |  | -                           |            |
| ł                | _                    |                     |                         |            | NI                     | 21.00-                    |  |   |  |                                 |  | -                           |            |
|                  | _                    |                     |                         |            | 11<br>CL AV            | 22.50                     |  |   |  |                                 |  |                             |            |
| İ                | -                    |                     |                         |            | 11                     | 1                         | From 21.16m to 21.20m bal: Hor                       | izon of firm dark are                                       | ev   |                                 |  |                             |            |
| ļ                | -                    |                     |                         |            |                        |                           | slightly gravelly slightly sandy CL                  | AY. Gravel is suban   | igular to  |                                 |  | _                           |            |
|                  | _                    |                     |                         |            |                        |                           | subrounded fine to medium of mu<br>coarse.           | udstone. Sand is fin  | e to   |                                 |  | L                           |            |
|                  | -                    |                     |                         |            |                        |                           |  |   |  |                                 |  | -                           |            |
|                  | -                    |                     |                         | 95         |                        |                           |  |   |  |                                 |  | -                           |            |
|                  | 21.84                | с                   |                         | 82         | 4                      |                           |  |   |  |                                 |  | -                           |            |
|                  | -                    |                     |                         |            |                        |                           |  |   |  |                                 |  | -                           |            |
| ł                | _                    |                     |                         |            |                        |                           |  |   |  |                                 |  | -                           |            |
| Ì                | -                    |                     |                         |            |                        |                           |  |   |  |                                 |  | -                           |            |
|                  | -                    |                     |                         |            |                        |                           |  |   |  |                                 |  |                             |            |
|                  | _                    |                     |                         |            |                        |                           |  |   |  |                                 |  | _                           |            |
|                  | -22.50               | с                   |                         |            | NR                     |                           |  |   |  |                                 |  | _                           |            |
| 022              | _                    |                     |                         |            | CLAY                   | 22.50-<br>24.00           |  |   |  |                                 |  | -                           |            |
| ber 2            | -                    |                     |                         |            |                        |                           | From 22.56m to 22.63m bgl: Hor                       | izon of firm dark gre                                       | ey   |                                 |  | -                           |            |
| Nem              | -                    |                     |                         |            | 9                      |                           | subrounded fine to medium of mu                      | udstone. Sand is fin  | e to   |                                 |  | -                           |            |
| 2 S Z            | -                    |                     |                         |            |                        |                           | coarse.  |   |  |                                 |  | -                           |            |
| ate:             |                      |                     |                         |            | NI                     |                           | From 22.75m to 22.83m bgl: Abu                       | undant shells and sh  | nell   |                                 |  | -                           |            |
|                  | -                    |                     |                         | 100        |                        |                           | fragments.   |   |  |                                 |  | -                           |            |
| U.E              | _                    |                     |                         | 55         | 8                      |                           |  |   |  |                                 |  |                             |            |
| V1.3             | _                    |                     |                         | 30         | CLAY<br>0              |                           |  | lated at 00 00m had   | Test   |                                 |  | _                           |            |
| ARY              | -                    |                     |                         |            | CLAY                   |                           | pocket drilled using T2-101 core l                   | barrel.   | Test   |                                 |  |                             |            |
| LIBR.            | -                    |                     |                         |            | 0                      |                           | Erom 02 20m to 02 05m ball 11m                       | izon of ooft dank and                                       |  |                                 |  | (11.26)                     |            |
| 4<br>0           | -                    |                     |                         |            | CLAY                   |                           | slightly gravelly slightly sandy CL                  | AY. Gravel is suban   | ∍y<br>igular to ∣                                      |                                 |  | -                           |            |
| AGS              | -                    |                     |                         |            |                        |                           | subrounded fine to medium of mu                      | udstone. Sand is fin  | e to   |                                 |  | -                           |            |
| Z                | -                    |                     |                         |            | 0                      |                           | 00a13C.  |   |  |                                 |  | -                           |            |
| rary:            | -                    |                     |                         |            |                        | 24.00-                    | From 23.39m to 23.48m bgl: Hor                       | izon of soft dark gre                                       | ey<br>Jacular to                                       |                                 |  |                             |            |
| ē                | _                    |                     |                         |            |                        | 20.00                     | subrounded fine to medium of mu                      | udstone. Sand is fin  | e to   |                                 |  |                             |            |
| L d E            | -                    |                     |                         |            |                        |                           | coarse.  |   |  |                                 |  | -                           |            |
| 5                | -                    |                     |                         |            |                        |                           | From 23.62m to 23.87m bgl: Hor                       | izon of stiff dark gre                                      | ey   |                                 |  | -                           |            |
| ž                | _                    |                     |                         |            |                        |                           | slightly gravelly slightly sandy CL                  | AY. Gravel is suban   | igular to  |                                 |  | -                           |            |
| 11.1             | -                    |                     |                         |            | ~                      |                           | coarse.  | austone. Sand is fin  | e 10   |                                 |  | -                           |            |
| SCI:             | -                    |                     |                         | 97<br>97   | 8                      |                           | From 04 00m to 04 40m h at 11                        | indent challe and d   |  |                                 |  | -                           |            |
| Б                | -                    |                     |                         | 77         |                        |                           | fragments.   | andant shells and sh  | iell   |                                 |  | -                           |            |
| g                | -                    |                     |                         |            |                        |                           | v  |   |  |                                 |  | -                           |            |
| Ľ<br>Į           | Wate                 | r Strikes           |                         |            | lole D                 | iamete                    | r Progress   |   | ic/Potony C //   | Remar                           | KS   | Site area of T-             | rworks     |
| ĔHC              | Strike Flow<br>Depth | Remark              | .s                      | Hol<br>(mr | e Dia<br>n)            | Depth<br>Hole (i          | n) Date I ime Hole Cas<br>Depth (m) De               | sing vvater 1. Soni<br>Redcar<br>pth (m) Depth (m) 2. Burie | r. Located in the<br>ed Service Inspe                  | south east of<br>ction Pit term | Remediation Zone PR1<br>inated at 0.05m bgl on h | B.<br>B.<br>ard stratum. Pe | mission    |
| Y<br>CC          |                      |                     |                         |            |                        |                           | 09-08-2022 17:00 24.00 22.                           | 50 2.90 granted 3. SO/F                                     | d to progress bor<br>RC borehole adv                   | rehole via Sor<br>vanced via So | nic drilling.<br>nic drilling to 15.00m bgl      | , and completed             | via Rotary |
| Å D              |                      |                     |                         |            |                        |                           |  | Coring<br>4. Topo<br>5. Grov                                | ເບ 29.20m bgl.<br>ography: Level G<br>undwater strikes | Fround.<br>not observed         | during drilling due to adv                       | dition of flush we          | ter.       |
|                  |                      |                     |                         |            |                        |                           |  | 6. Slag   | encountered in<br>ce of contaminat                     | material reco                   | vered from ground level                          | to 5.02m bgl. No            | olfactory  |
| ST S             |                      |                     |                         |            |                        |                           |  | 7. Bore   | ehole backfilled v                                     | vith bentonite                  | pellets and arisings upor                        | n completion.               |            |
|                  |                      |                     |                         |            |                        |                           |  |   |  |                                 |  |                             |            |
| 2<br>e<br>b<br>c | Notes: For e         | kplanatio           | n of symbols and        | d abbr     | eviati                 | ons, se                   | e Key Sheet. Scale: 1:25                             | Logged  | By: NS   |                                 | Checked E  | sy: JW                      |            |

|                     | A   | EC   | <b>ON</b>  |                      | A<br>5th<br>2 C<br>Lee | Floor<br>Floor<br>City Walk              | VI                                  | T<br>F<br>V                | Fel: 0113 391<br>Fax: 0113 391<br>ww.aecom.co | 6800<br>6899<br>om                    | AGS                 |  | Bore   |   | No. F  | BH12  | 5  |
|---------------------|---|--|--|----------------------|------------------------|--|-------------------------------------|----------------------------|---|---------------------------------------|---------------------|--|--|---|--|---|--|
|                     | Equipment<br>0.00 - 0.05<br>0.05 - 15.00<br>15.00 - 29.20 | t & Method<br>Insulated Har<br>Sonic Drilling<br>Rotary Coring | S:<br>nd Tools<br>(Hammer ID: GS002)<br>g (Hammer ID: GS002) |                      |                        | Project<br>Project<br>Project<br>Client: | Name: Net Ze<br>Location: Rec<br>BP | ero Teessio<br>Icar, North | de Onshore<br>Yorkshire                       | Ground Inv                            | registered user and | n - Fron   | t End Eng  | jineering D   | Design (FEED)  | Job No:<br>6067   | /8042  |
|                     |   |  |  |                      |                        | Co-ordi<br>E: 4569                       | nates:<br>36.515                    |                            |   | Ground                                | Level (m):          | 7.311  | AOD  |   | Date Started<br>Date Comple  | : 04/08/2022<br>eted: 10/08/2                                 | 2<br>2022  |
|                     | Depth<br>(m)  | In Situ Tes<br>Sample<br>Ref &                                 | ting<br>Test Type  | Coring<br>TCR<br>SCR | g Infor<br>FI          | mation<br>Core<br>Run                    | 14.209                              | DES                        | SCRIPTION                                     |                                       |                     |  |  | Reduced<br>Level<br>(m)   | Legend   | Depth<br>(Thick)<br>(m)                                       | Backfill/<br>Instrument                              |
|                     | -   | <u> </u>   |  | RQD                  |                        |  |                                     |                            |   |                                       |                     |  |  |   |  | -   |  |
| •                   | -   |  |  |                      | NR                     |  |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | <b>-</b>  |  |  |                      | 0                      | 25.50-<br>27.00                          |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | -   |  |  |                      |                        |  |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | -<br>   |  |  |                      |                        |  |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | -   |  |  | 97<br>97<br>75       | 7                      |  |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | -   |  |  |                      |                        |  |                                     |                            |   |                                       |                     |  |  |   |  | -   |  |
|                     | -   |  |  |                      |                        |  |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | -   |  |  |                      | NR                     | 27.00-                                   |                                     |                            |   |                                       |                     |  |  |   |  | -   |  |
|                     | -<br>-<br>27.27   | с  |  | 100                  | 2                      | 27.60                                    |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
|                     | -   |  |  | 100                  | 5                      |  |                                     |                            |   |                                       |                     |  |  |   |  |   |  |
| nber 2022           | -   |  |  |                      | 0<br>CLAY<br>5         | 27.60-<br>29.20                          | From 27.63                          | 3m to 27.                  | 66m bal: l                                    | -lorizon a                            | f firm da           | ırk are  | v  |   |  |   |  |
| 29 Nover            | -<br>-  |  |  |                      | CLAY<br>8              |  | slightly sand                       | dy CLAY.                   | . Sand is f<br>91m bgl: l                     | ine to coa                            | arse.<br>If firm da | irk gre  | v  |   |  |   |  |
| LB    Date:         | -   |  |  |                      | CLAY                   |  | slightly sand<br>From 28.04         | dy CLAY.<br>Im to 28.      | . Sand is f<br>09m bgl: l                     | ine to coa<br>Horizon o               | arse.<br>If firm da | irk gre  | y  |   |  |   |  |
| KY V1.3.G           | -   |  |  | 100<br>83<br>16      | 7                      |  | slightly sand                       | dy CLAY.                   | . Sand is f                                   | ine to coa                            | arse.               | -  | -  |   |  |   |  |
| 0 LIBRAF            |   |  |  |                      | CLAY<br>6              |  | From 28.50                          | )m to 28.<br>dv CI AY      | 56m bgl: l<br>Sand is f                       | Horizon o                             | of firm da          | ırk gre  | У  |   |  |   |  |
| ZT AGS 4            | -   |  |  |                      | CLAY                   |  | From 28.74                          | Im to 28.                  | 82m bgl: l<br>Sand is f                       | Horizon o                             | of firm da          | ırk gre  | у  |   |  |   |  |
| Library: N          | -   |  |  |                      | 8                      |  | Pressurem<br>pocket drille          | eter test                  | (HPD) coi<br>T2-101 co                        | npleted a<br>re barrel.               | at 28.80m           | n bgl.   | Test   | -21 89  |  | 29.20   |  |
| GI.GPJ              | -   |  |  |                      |                        |  |                                     | 5                          |   |                                       |                     |  |  |   |  |   |  |
| Project: V11.1 NZ1  |   |  |  |                      |                        |  |                                     | <b>End</b><br>(Thi         | of Boreh<br>ckness of<br>not pro              | <b>ole 29.20</b><br>basal lay<br>ven) | <b>m</b><br>ver     |  |  |   |  |   |  |
| LE LOG              | Wa<br>Striko  | ater Strikes   |  |                      |                        | liamete                                  | r<br>of Data                        | Progr                      | ess   | Casing                                | Mator               | 1. Sonici  | Rotary Core  | Remar   | KS   | in Site area of Ta  | esworks  |
| U: SI ANDARD COREHO | Depth   | ow remark  |  | 146<br>131           | ם טומ<br>n)            | 27.60<br>29.20                           | 10-08-202                           | 2 17:00                    | 29.20   | 27.60                                 | 2.70                | 2. Buried<br>granted<br>3. SO/Re<br>Coring to<br>4. Topog<br>5. Groun<br>6. Slag e<br>evidence<br>7. Boreh | Located in th<br>d Service Insp<br>to progress b<br>C borehole a<br>o 29.20m bgl<br>graphy: Level<br>adwater strike<br>encountered i<br>e of contamin<br>iole backfilled | e south east of<br>bection Pit term<br>orehole via So<br>dvanced via So<br>Ground.<br>s not observed<br>n material reco<br>ation.<br>with bentonite | Remediation Zone F<br>initated at 0.05m bgl i<br>nic drilling.<br>nic drilling to 15.00m<br>I during drilling due to<br>wered from ground le<br>pellets and arisings i | addition of flush v<br>vel to 5.02m bgl. I<br>pon completion. | remission<br>ed via Rotary<br>vater.<br>No olfactory |
| Report I.           | Notes: For  | r explanatio   | on of symbols an   | d abbr               | eviati                 | ons, se                                  | e Key Sheet.                        | So                         | cale: 1:25                                    |                                       | L                   | Logged   | By: NS   |   | Checke   | d By: JW  |  |

| Δ   | -   | <b>`</b> A   |               | Al<br>5th                | ECOI<br>Floor                 | М   | т  | el: 0113 391   | 6800  |   | Во  | rehole  | No. F-I   | BH11   | 9   |
|---|---|--|---------------|--------------------------|-------------------------------|---|--|--|---|---|---|---|---|--|---|
|   |   |  |               | 2 C<br>Lee<br>LS         | ity Walk<br>ds<br>11 9AR      |   | F<br>W   | ax: 0113 39<br>ww.aecom.c  | 1 6899<br>om  | AGS<br>REGISTERED USER 202  | 2 Shee  | t: 1 of 6   |   |  |   |
| Equipment 6<br>0.00 - 0.20<br>0.25 - 13.50<br>13.50 - 28.50                 | & Method:<br>Insulated Har<br>Sonic Drilling<br>Rotary Coring | S:<br>nd Tools<br>(Hammer ID: GS10)<br>g (Hammer ID: GS10) |               | i<br>i                   | Project<br>Project<br>Client: | Name: Net Zer<br>Location: Redo<br>BP   | o Teessid<br>ar, North   | le Onshore<br>Yorkshire  | Ground I  | nvestigation  | - Front End I   | Engineering I   | Design (FEED)   | Job No:<br>6067  | 8042  |
|   |   |  |               | (<br>E                   | Co-ordi<br>E: 4567            | nates:<br>/54.822   |  |  | Ground  | d Level (m):  | 7.378 AC  | D   | Date Started:<br>Date Complete  | 09/08/2022<br>ed: 12/08/2  | <u>2</u><br>2022                                      |
| lr<br>Depth   | Situ Tes<br>Sample  | ting   | Coring<br>TCR | Infor                    | N: 5253<br>mation<br>Core     | 399.922   | DES  | SCRIPTION  | 1   |   |   | Reduced<br>Level<br>(m)   | Legend  | Depth<br>(Thick)   | Backfill<br>Instrume                                  |
| (m)<br>-<br>-<br>-  | Type  | and Result   | RQD           |                          | Run                           | MADE GRO<br>silty angular<br>chert and sa<br>are subangu<br>(MADE GRO                               | UND: BI<br>to subro<br>ndstone<br>lar of sla<br><b>UND)</b>                        | ack mottl<br>ounded fir<br>with med<br>ag. Sand                            | ed dark<br>ne to coa<br>lium cob<br>is fine to                | reddish br<br>arse GRA\<br>bble conter<br>coarse                          | rown sandy<br>/EL of slag<br>nt. Cobbles  | ,   |   | (0.91)   |   |
| -0.50<br>-<br>-<br>-<br>-   |   | PID = 5.7ppm   |               |                          |                               | MADE GRO  | JND: Br  | rown moti  | iled blac   | k very gra  | velly fine to   | 6.47  |   | 0.91   | ××××  |
| - 1.00<br>-<br>-<br>-<br><br>-1.50  |   | PID = 9.4ppm   |               |                          |                               | coarse SANI<br>angular to su<br>sandstone<br>(MADE GRO<br>From 0.91m<br>and textile ei              | D with or<br>brounde<br><b>UND)</b><br>to 1.08<br>ncounter                         | ccasional<br>ed fine to<br>m bgl: Fro<br>red. Orga                         | organic<br>coarse<br>equent fi                                | material.<br>of slag, ch<br>ragments<br>ur noted.                         | Gravel is<br>liert, coal ar<br>of wood  | nd  |   |  |   |
| -<br>-<br>-<br>-<br>2.00  |   | PID = 3.0ppm   |               |                          |                               |   |  | 0-   |   |   |   |   |   | (1.72)   |   |
| -<br>-<br>-<br>-<br>2.50  |   | PID = 2.9ppm   |               |                          |                               |   |  |  |   |   |   |   |   |  |   |
| -<br>- 2.70- 3.00<br>-<br>- 2.90<br><b>3.00</b> - 3.10<br>- 3.10- 3.93<br>- | D<br>ES<br>D<br>B   | PID = 3.4ppm<br>SPT(C) N=29<br>4,10/<br>6,9,7,7            |               |                          |                               | NOTE: Prop<br>MADE GROI<br>sandy angula<br>slag, coal, ct<br>Cobbles are<br>(MADE GRO<br>From 3.00m | Dosed re<br>UND: Data<br>ar to sub<br>nert and<br>subange<br><b>UND</b><br>to 3.93 | mediatior<br>ark grey r<br>prounded<br>mudston<br>ular of sla<br>m bgl: Be | n level 4.<br>nottled b<br>fine to c<br>e with lo<br>ag. Sand | 8m AOD.<br>prown and<br>coarse GR<br>w cobble o<br>l is fine to<br>sandy. | black sligh<br>AVEL of<br>content.<br>coarse  | 4.75  |   | 2.63   |   |
| -<br>-<br>3.50<br>-<br>-  |   | PID = 0.9ppm   |               |                          |                               |   |  |  |   |   |   |   |   | ><br>><br>><br>><br>><br>><br>><br>><br>><br>><br>>  |   |
| - 3.93- 4.40<br>4.00<br>-<br>-<br>- 4.30                                    | B   | PID = 2.1ppm   |               |                          |                               | Medium den<br>gravelly fine<br>shell fragme<br>clay. Gravel<br>sandstone, c                         | se yellov<br>to coars<br>nts and<br>is angula<br>hert, lim                         | wish brow<br>se slightly<br>rare pock<br>ar to subr<br>nestone a           | vn mottle<br>organic<br>tets of so<br>rounded<br>nd muds      | ed black sl<br>SAND wit<br>oft brown a<br>fine to coa<br>stone            | ightly<br>th occasion<br>and grey<br>arse of  | 3.45<br>al  |   | 3.93<br>   |   |
| - 4.40- 4.50<br>-4.50- 4.60<br>4.50<br>4.60- 5.10<br>-                      | D<br>D<br>SS<br>B   | PID = 1.3ppm<br>SPT(S) N=23<br>1,1/<br>3,5,6,9             |               |                          |                               | From 4.60m  | bgl: Gra   | avel becc  | omes abs  | sent.   |   |   |   |  |   |
| Wat   | er Strikes  | ;<br>;   |               | ole D                    | iamete                        | r<br>of Date  | Progre   | ess  | Casing  | Water   | 1. Sonic/Rotary (   | Rema  | rks   | Site area of Te  | esworks.  |
| Jepth   | w kemark  |  | Ins           | שם טום :<br>1)<br>p. Pit | 0.20                          | 09-08-2022  | 10:00  | 0.20   | Casing<br>Depth (n  | n) Depth (m)  | Redcar. Located<br>2. Buried Service<br>granted to progre<br>3. SO/RC boreho<br>Coring to 28.50m<br>4. Topography: L<br>5. Groundwater<br>6. Slag encounter<br>noted from 0.91m<br>7. Borehole back | in the south of Re<br>Inspection Pit ten<br>ss borehole via S<br>bgl.<br>evel Ground.<br>trikes not observe<br>red in material rec<br>to 1.08m bgl.<br>filled with bentonit | a source version of the Mall<br>mediation 20ne PR2B.<br>minated at 0.20m bgl on<br>onic drilling.<br>onic drilling to 13.50m b<br>d during drilling due to an<br>overed from ground leve<br>e pellets and arisings up | hard stratum. P<br>gl, and complete<br>ddition of flush v<br>I to 3.93m bgl. (<br>on completion. | ermission<br>ed via Rotary<br>vater.<br>Organic odour |
| Notes: For e  | explanatio  | on of symbols an   | d abbr        | eviatio                  | ons, se                       | e Kev Sheet.  | Sc   | <br>cale: 1:25   |   | L   | Logged By: N  | S   | Checked   | By: JW   |   |

|         | A  | EC                              | <b>NO</b>                              | 1      | 5th             | ECON<br>Floor<br>Sity Walk | И                | Tel: 0113 3<br>Fax: 0113 3 | 91 6800<br>891 6899 | AGS                 | Bor   | ehole   | No. F-E   | 3H11                                  | 9                       |
|---------|--|---------------------------------|--|--------|-----------------|----------------------------|------------------|----------------------------|---------------------|---------------------|---|---|---|---------------------------------------|-------------------------|
|         | Equipment                                | t & Method                      |  |        |                 | eas<br>11 9AR<br>Project   | Name: Net Zero ] |                            | re Ground I         | REGISTERED USER 202 | 2 Sheet:  | 2 of 6  |   | loh No:                               |                         |
| 0       | .00 - 0.20                               | Insulated Har                   | s.<br>nd Tools                         |        |                 | Project                    | Location: Redcar | North Yorkshir             |                     | Investigation       | - FIONE ENd EN  | gineening L                                       |   | 6067                                  | 8042                    |
| 0       | .25 - 13.50<br>3.50 - 28.50              | Sonic Drilling<br>Rotary Coring | (Hammer ID: GS10)<br>(Hammer ID: GS10) |        |                 | Client: I                  | BP               |                            | -                   |                     |   |   |   |                                       | 0042                    |
|         |  |                                 |  |        |                 | Co-ordir                   | nates:           |                            | Ground              | d Level (m):        |   |   | Date Started:   | 09/08/2022                            | 2                       |
|         |  |                                 |  |        |                 | E: 4567<br>N: 5253         | 99.922           |                            |                     |                     | 7.378 AOD   |   | Date Complete   | ed: 12/08/2                           | 2022                    |
|         |  | In Situ Tes                     | ting                                   | Corin  | g Infor         | mation                     |                  |                            | ואר                 |                     |   | Reduced<br>Level                                  | Legend  | Depth<br>(Thick)                      | Backfill/<br>Instrument |
|         | Depth<br>(m)                             | Ref &                           | Test Type<br>and Result                | SCR    | FI              | Core<br>Run                |                  | DEGORITIN                  |                     |                     |   | (m)   | Legend  | `(m) ´                                |                         |
| Ľ       | 5.00<br>5.10-5.20                        |                                 | PID = 0.4ppm                           | RQD    |                 |                            |                  |                            |                     |                     |   |   |   |                                       |                         |
| Ļ       | 5.20- 6.00                               | ) В                             |  |        |                 |                            |                  |                            |                     |                     |   |   | a a .   | -                                     |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | 00  | -                                     |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · ·   | -                                     |                         |
| F       | •  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | F                                     |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · · · · · · · · · ·                               | -                                     |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | a a .   | -                                     |                         |
| L       | -6.00                                    |                                 | PID = 0.5ppm                           |        |                 |                            |                  |                            |                     |                     |   |   |   | L I                                   |                         |
| Ļ       | 6.10- 6.20                               | D                               | SPT(S) N=27                            |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| F       | 6.20- 6.80                               | в                               | 4,7,7,9                                |        |                 |                            |                  |                            |                     |                     |   |   | 0   | -                                     |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| F       | -6.50                                    | ES                              |  |        |                 |                            | From 6.36m b     | gl: Becomes                | brownish g          | grey mottle         | ed black.   |   |   | É l                                   |                         |
| +       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · · · · · · · · · ·                               | -                                     |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| Ľ       | 6.80- 6.90<br>6 90- 7 50                 |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · o · · · · · o · · · ·   |                                       |                         |
|         | -7.00                                    |                                 | PID = 1.0ppm                           |        |                 |                            |                  |                            |                     |                     |   |   | a a .   | - I                                   |                         |
| F       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| t       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · ·   | (6.70)                                |                         |
| Ę       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | [                                     |                         |
|         | <b>7.50-</b> 7.60                        | D D                             | SPT(S) N=39                            |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · ·   | - I                                   |                         |
| 2022    | 7.50<br>7.60- 8.10                       | ) B                             | 9,10,10,10                             |        |                 |                            | From 7.50m b     | gl: Becomes                | dense.              |                     |   |   |   | -                                     |                         |
| amper   |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · o' . · . · o' . · .   |                                       |                         |
| Nove    |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| ite: 29 | -8.00                                    |                                 | PID = 1.8ppm                           |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
|         | 8.10-8.20                                |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   |                                       |                         |
| 3.GL    | 0.20- 0.00                               |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | <br>  | -                                     |                         |
| -4      |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · ·   | -                                     |                         |
| BRAR    | •  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   |                                       |                         |
|         |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   |                                       |                         |
| GS 4    |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| NZT A   |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
| rary: 1 | <b>-9.00-</b> 9.10<br>9 10 <b>-</b> 9 70 |                                 | PID = 0.5ppm<br>SPT(S) N>50            |        |                 |                            |                  |                            |                     |                     |   |   |   |                                       |                         |
|         | 5.10- 5.70                               |                                 | 10,15 for<br>55mm/23,17,10             |        |                 |                            | From 9.00m b     | gl: Becomes                | very dense          | е.                  |   |   | <br>  | -                                     |                         |
| -GP     |  |                                 | for 40mm                               |        |                 |                            |                  |                            |                     |                     |   |   | o'o'  | -                                     |                         |
| ZTG     |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | -                                     |                         |
|         |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   |   | F                                     |                         |
| sc: <   | 9.70- 9.80                               | D                               |  |        |                 |                            |                  |                            |                     |                     |   |   |   |                                       |                         |
| Proje   | 9.80- 10.5                               | 50 B                            |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · · ·   |                                       |                         |
| 8       |  |                                 |  |        |                 |                            |                  |                            |                     |                     |   |   | · · · · · · · · · · · · · · · · · · ·                               | [                                     |                         |
|         | Wa<br>Strike   Fl                        | ater Strikes<br>ow Remark       | (S                                     | Hol    | lole D<br>e Dia | iameter<br>Depth           | r<br>of Date Ti  | Progress<br>me Hole        | Casing              | Water               | 1. Sonic/Rotary Core  | Remai   | rks<br>hole located in the Main                                     | Site area of Te                       | esworks,                |
| 티       | Depth                                    |                                 |  | (mr    | n)              | Hole (n                    | n)               | Depth (                    | m) Depth (m         | n) Depth (m)        | 2. Buried Service Ins<br>granted to progress  | pection Pit term<br>porehole via Sc               | niculation Zone PR2B.<br>ninated at 0.20m bgl on l<br>nic drilling. | hard stratum. P                       | ermission               |
| RDC     |  |                                 |  |        |                 |                            |                  |                            |                     |                     | SOURC borehole a<br>Coring to 28.50m bg<br>4. Topography: Leve                          | iuvanced via S<br>I.<br>I Ground.                 | unic aniiing to 13.50m bg   | yı, and complete                      | su via rkotary          |
| NDA     |  |                                 |  |        |                 |                            |                  |                            |                     |                     | <ol> <li>Groundwater strik</li> <li>Slag encountered<br/>noted from 0.91m to</li> </ol> | es not observed<br>in material reco<br>1.08m bgl. | a during drilling due to ad<br>overed from ground level             | ation of flush v<br>I to 3.93m bgl. ( | vater.<br>Drganic odour |
| ST/     |  |                                 |  |        |                 |                            |                  |                            |                     |                     | 7. Borehole backfille   | d with bentonite                                  | e pellets and arisings upo  | on completion.                        |                         |
| port IC |  |                                 |  |        |                 |                            |                  | Scale: 1:25                |                     |                     | orged By: NO  |   | Charlest  | B <sub>M</sub> : IM/                  |                         |
| Re      | Notes: For                               | r explanatio                    | on of symbols an                       | d abbr | eviati          | ons, see                   | e Key Sheet.     | June. 1.20                 |                     | "                   | -одуса ру. 185  |   |   | y. Jvv                                |                         |

|  | -                            | 'n l                          |            | A               | ECO                      | М                                | т                      | al 0113 301                | 6800                    |                        |                            | Bore  | ehole  | No. F-E   | 3H119             | 9                         |
|--|------------------------------|-------------------------------|------------|-----------------|--------------------------|----------------------------------|------------------------|----------------------------|-------------------------|------------------------|----------------------------|---|--|---|-------------------|---------------------------|
|  |                              |                               |            | 2 C<br>Lee      | ity Walk<br>ds<br>11 9AR |                                  | Fa                     | ax: 0113 391<br>ww.aecom.c | 6899<br>om              |                        | 2012                       | Sheet: 3  | 3 of 6   |   |                   |                           |
| Equipment &                              | Method                       | s:                            |            |                 | Project                  | Name: Net Zer                    | o Teessid              | le Onshore                 | Ground Ir               | nvestigatio            | n - Fro                    | ont End Eng   | ineering D   | Design (FEED)   | Job No:           |                           |
| 0.00 - 0.20 In<br>0.25 - 13.50 S         | sulated Har<br>onic Drilling | id Tools<br>(Hammer ID: GS10) |            | F               | Project                  | Location: Redo                   | ar, North              | Yorkshire                  |                         |                        |                            |   |  |   | 60678             | 8042                      |
| 13.50 - 28.50 R                          | otary Coring                 | (Hammer ID: GS10)             |            |                 | Client:<br>Co-ordi       | BP<br>nates:                     |                        |                            | Ground                  | d Level (m)            | :                          |   |  | Date Started:   | 09/08/2022        |                           |
|  |                              |                               |            | 1<br>1          | E: 4567<br>N: 5253       | '54.822<br>999.922               |                        |                            |                         | . ,                    | 7.37                       | 78 AOD  |  | Date Complete   | d: 12/08/2        | 022                       |
| ln                                       | Situ Tes<br>ISample          | ting                          |            | lnfor           | mation                   |                                  | DES                    | CRIPTION                   |                         |                        |                            |   | Reduced<br>Level                                   | Legend  | Depth<br>(Thick)  | Backfill/<br>Instrument   |
| (m)                                      | Ref &                        | Test Type<br>and Result       | SCR        | FI              | Core<br>Run              |                                  | DEC                    |                            |                         |                        |                            |   | (m)  | Legend  | (m)               |                           |
| -  |                              | - 0.0ppm                      |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -  <br>-          |                           |
|  |                              | SPT(S) N=13                   |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  | · · · · · · · · · · · · · · · · · · ·                   |                   |                           |
| 10.63- 11.10                             | В                            | 4,6/<br>4,4,3,2               |            |                 |                          |                                  |                        |                            |                         |                        | -                          |   | -3.25  | · · · · · · · · · · · · · · · · · · ·                   | - 10.63           |                           |
| - 10.80                                  | ES                           |                               |            |                 |                          | Soft locally v<br>sandy silty of | ery soft<br>rganic C   | brown mo<br>LAY. Gra       | ottled bla<br>vel is su | ack slight<br>bangular | ly gra<br><sup>.</sup> to  | velly   |  | - <u>°.                                    </u>         |                   |                           |
| - 10.80                                  | E3                           |                               |            |                 |                          | subrounded mudstone. S           | fine to c<br>and is fi | oarse of :<br>ne to coa    | sandstor<br>rse         | ne, limest             | ione a                     | and   |  |   |                   |                           |
| -11.00                                   | _                            | PID = 6.1ppm                  |            |                 |                          | (TIDAL FLAT                      | DEPOS                  | SITS)                      |                         |                        |                            |   |  | <br>  | -                 |                           |
| - 11.10- 11.20                           | D<br>B                       |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
| -  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  | ° °<br>   | -                 |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
| -  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  | · <u> </u>  | -                 |                           |
| F  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | - (2.16)          |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  | - <u>°.                                    </u>         |                   |                           |
| -12.00-12.10                             |                              | PID = 6.3ppm                  |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
| 12.10- 12.45                             | B                            | 100 % lecovery                |            |                 |                          | From 12.00                       | m bgl: Be              | ecomes \                   | very sand               | dy.                    |                            |   |  |   |                   |                           |
| -  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
| -  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   | 5 / 1  |   | -                 |                           |
| <sub>10</sub> - 12.79-13.40<br>2 - 12.90 | ES ES                        |                               |            |                 |                          | Stiff locally v                  | ery stiff i            | reddish b                  | rown mo                 | ottled gre             | y sligi                    | htly  | -0.41  |   | _ 12.75           |                           |
| 13.00                                    |                              | PID = 10.5ppm                 |            |                 |                          | subrounded                       | fine to c              | oarse of                   | mudston                 | e, sands               | tone                       | and   |  |   | -                 |                           |
|  |                              |                               |            |                 |                          | (TILL: DEVE                      | and is fir<br>NSIAN)   | ne to coa                  | rse                     |                        |                            |   |  |   | -                 |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
| - 13.40- 13.50                           | D                            |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
|  |                              |                               |            |                 | 13.50-<br>15.00          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  | <u> </u>  | _                 |                           |
|  |                              |                               | 100        |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
|  |                              |                               | 0          |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
| 5  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   |                   |                           |
| 0<br>14.82- 15.00                        | с                            |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  |   | -                 |                           |
| <u> </u>                                 |                              |                               |            |                 |                          |                                  | _                      |                            |                         |                        |                            |   |  |   |                   |                           |
| Strike Flow                              | r Strikes<br>Remark          | (S                            | Hole       | iole D<br>e Dia | Depth                    | r<br>of Date                     | Progre<br>Time         | Hole                       | Casing                  | Water                  | 1. Sor                     | nic/Rotary Core (<br>ar. Located in the                 | Remar<br>SO/RC) bore<br>south of Rem               | KS<br>hole located in the Main S<br>nediation Zone PR2B | Site area of Tee  | esworks,                  |
| Depth                                    |                              |                               | (mn<br>194 | n)              | Hole (r<br>13.50         | n)<br>09-08-2022                 | 17:00                  | Depth (m)                  | Depth (m<br>12.00       | 1.60                   | 2. Bur<br>grante<br>3. SO  | ied Service Insp<br>d to progress bo<br>/RC borehole ad | ection Pit term<br>prehole via So<br>vanced via So | ninated at 0.20m bgl on h<br>nic drilling.              | ard stratum. Pe   | ermission<br>d via Rotarv |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        | Coring<br>4. Top<br>5. Gro | to 28.50m bgl.<br>ography: Level (<br>oundwater strikes | Ground.  | during drilling due to ad                               | dition of flush w | ater.                     |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        | 6. Slag<br>noted<br>7. Bor | g encountered in<br>from 0.91m to 1<br>ehole backfilled | .08m bgl.<br>with bentonite                        | pellets and arisings upo                                | to 3.93m bgl. C   | rganic odour              |
|  |                              |                               |            |                 |                          |                                  |                        |                            |                         |                        |                            |   |  | <u>.</u>  |                   |                           |
| Notes: For ex                            | planatic                     | on of symbols an              | d abbr     | eviatio         | ons, se                  | e Key Sheet.                     | Sc                     | <br>ale: 1:25              |                         | <u> </u>               | <br>Logge                  | d By: NS  |  | Checked E   | By: JW            |                           |

| AE  | C   | <b>O</b> N  |                   | 5th<br>2 C<br>Lee<br>LS | ECOI<br>Floor<br>tity Walk<br>eds<br>11 9AR                   | M   | -   | Tel: 0113 391<br>Fax: 0113 39<br>www.aecom.c                                    | 6800<br>I 6899<br>om  | AGS<br>REGISTERED USER 20                                       | 022   | Bore<br>Sheet:   | ehole  | No. F-I  | 3H11  | 9  |
|---|---|---|-------------------|-------------------------|---|---|---|---|---|---|---|--|--|--|---|--|
| Equipment &<br>0.00 - 0.20 In<br>0.25 - 13.50 Se<br>13.50 - 28.50 Re        | Method:<br>sulated Har<br>onic Drilling<br>otary Coring | S:<br>d Tools<br>(Hammer ID: GS10)<br>(Hammer ID: GS10) |                   |                         | Project<br>Project<br>Client:                                 | Name: Net 2<br>Location: Re<br>BP   | Zero Teessi<br>edcar, North                                   | de Onshore<br>1 Yorkshire   | Ground In   | vestigation   | ı - Fron  | t End Eng  | gineering [  | Design (FEED)  | Job No<br>606   | 78042  |
|   |   |   |                   |                         | Co-ordi<br>E: 4567  | nates:<br>/54.822   |   |   | Ground  | Level (m):  | 7.378   | AOD  |  | Date Started:  | 09/08/202   | 2  |
| In  | Situ Tes  | ling  | Coring            | g Infor                 | N: 5253<br>mation   | 399.922   |   |   |   |   |   |  | Reduced  | Date Complete  | Depth   | Backfill/  |
| Depth<br>(m)  | Sample<br>Ref &<br>Type                                 | Test Type<br>and Result                                 | TCR<br>SCR<br>RQD | FI                      | Core<br>Run   |   | DE  | SCRIPTION   | l   |   |   |  | (m)  | Legend   | (Thick)<br>(m)  | Instrumen  |
| E.LOGII Project: V111 NZT GG2.4_0 LIBRARY V13.GLB II Date: 29 November 2022 | C   |   |                   | CLAY<br>0               | 15.00-<br>16.50<br>18.00-<br>18.00<br>19.50<br>19.50<br>21.00 | Extremely<br>laminated<br>Wide to cle<br>partly oper<br>subangula<br>(REDCAR<br>r | weak loca<br>dark bluis<br>osely space<br>to closed<br>muDSTO | ally very w<br>th grey MU<br>ced, subt h<br>unded fin<br><b>NE FORM</b><br>ress | eak fract<br>JDSTON<br>JOSTON<br>JOSTON<br>JOSTON<br>JOSTON<br>JOSTON<br>JOSTON | ured thinl<br>E. Fractu<br>to 20°, p<br>gravelly s<br>ium of mu | ly to the set lanar silt. Guidstor  | nickly<br>1:<br>rough,<br>ravel is<br>ie   | 12.14<br>Remar   |  | - (6.73)  |  |
| ਹ Wate<br>ਹ Strike Flow   | r Strikes<br>Remark                                     | S   | Hol               | lole D<br>e Dia         | iamete<br>Depth   | r<br>of Date  | Progi<br>Time   | ress<br>Hole  | Casing  | Water   | 1. Sonic  | Rotary Core  | Remar<br>(SO/RC) bore  | ks<br>hole located in the Main   | Site area of Te   | esworks,   |
| Depth Depth COREL   |   |   | (mr               | <u>n)</u>               | Hole (r   | m)  |   | Depth (m  | Depth (m  | ) Depth (m)   | Redcar.<br>2. Buriec<br>granted<br>3. SO/R<br>Coring to<br>4. Topog<br>5. Grour<br>6. Slag e<br>noted fro<br>7. Boreh | Located in th<br>d Service Insy<br>to progress b<br>C borehole a<br>b 28.50m bgl<br>graphy: Level<br>idwater strike<br>ancountered i<br>om 0.91m to<br>iole backfilled | e south of Rer<br>pection Pit tem<br>porchole via So<br>dvanced via So<br>Ground.<br>ss not observer<br>in material recc<br>1.08m bgl.<br>d with bentonite | neciation Zone PR2B.<br>initated at 0.20m bgl on<br>nic drilling.<br>onic drilling to 13.50m bg<br>d during drilling due to ac<br>vered from ground leve<br>pellets and arisings upo | hard stratum. F<br>gl, and complet<br>Idition of flush<br>to 3.93m bgl.<br>on completion. | <sup>2</sup> ermission<br>ed via Rotary<br>water.<br>Organic odour |
| Notes: For ex   | planatio  | n of symbols an   | nd abbr           | eviati                  | ons, se   | e Key Sheet.  | S   | cale: 1:25  |   | L   | Logged  | By: NS   |  | Checked  | By: JW  |  |

|   |                                    | EC  | <b>O</b>   |                               | 5th<br>2 C<br>Lee                      | ECO<br>Floor<br>City Walk<br>eds | M<br>Tel: 0113 391<br>k Fax: 0113 391<br>www.aecom.co   | 6800<br>6899<br>om REGISTERED USER 2022  | Bore<br>Sheet: 5  | hole   | No. F-E   | 3H119   | 9                                     |
|---|------------------------------------|---|--|-------------------------------|--|----------------------------------|---|--|---|--|---|---|---------------------------------------|
| Equ<br>0.00 -<br>0.25 -<br>13.50 -  | ipment<br>0.20<br>13.50<br>- 28.50 | & Methods<br>Insulated Har<br>Sonic Drilling<br>Rotary Coring | S:<br>Id Tools<br>(Hammer ID: GS10)<br>(Hammer ID: GS10) |                               |  | Project<br>Project<br>Client:    | Name: Net Zero Teesside Onshore<br>Location: Redcar, North Yorkshire<br>BP                                | Ground Investigation - Fro   | ont End Engir   | neering De   | esign (FEED)  | Job No:<br>60678  | 3042                                  |
|   |                                    |   |  |                               |  | Co-ordi<br>E: 4567<br>N: 5253    | inates:<br>754.822<br>399.922   | Ground Level (m):<br>7.3   | 78 AOD  |  | Date Started: (<br>Date Complete  | 09/08/2022<br>d: 12/08/20   | 022                                   |
| De<br>(   | epth<br>m)                         | n Situ Tes<br>Sample<br>Ref &<br>Type                         | ting<br>Test Type<br>and Result                          | Coring<br>TCR<br>SCR<br>RQD   | g Infoi<br>FI                          | rmation<br>Core<br>Run           | DESCRIPTION   |  |   | Reduced<br>Level<br>(m)  | Legend  | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrument               |
| -   |                                    |   |  | 100<br>95<br>91               | CLAY                                   |                                  | From 19.97m to 20.03m bgl:<br>slightly gravelly slightly sandy<br>subrounded fine to medium of<br>coarse. | Horizon of firm dark g<br>CLAY. Gravel is suba<br>mudstone. Sand is fi                 | rey<br>ingular to<br>ne to  |  |   | -<br>-<br>-<br>-<br>-<br>-  |                                       |
|   |                                    |   |  | 100<br>93<br>49               | 8<br>CLAY                              | 21.00-22.50                      | From 21.31m bgl: Fracture se<br>closely spaced, sub vertical to<br>tight to closed, infilled with gre     | et 2 present: Medium t<br>70°, planar rough to s<br>y silt.<br>Horizon of stiff dark g | to<br>smooth,   |  |   |   |                                       |
| ary: NZT AGS 4_0 LIBRARY V1.3.GLB    Date: 29 November 2022   | 77                                 | C   |  | 100 97 82                     | 11<br>8<br><u>NI</u><br>3              | 22.50-<br>24.00                  | slightly sandy CLAY. Sand is f  | ine to coarse.   |   |  |   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |                                       |
| REHOLE LOG    Project: V11.1 NZT GI. GPJ    Libra<br>D S<br>tag is in the second | Wa<br>e Flo                        | ter Strikes<br>w Remark                                       | S  | 100<br>82<br>73<br>Hol<br>(mr | NI<br>4<br>NI<br>Hole D<br>e Dia<br>n) | 25.50<br>Diamete                 | er Progress<br>of Date Time Hole<br>m) Depth (m)  | Casing Water 1. So<br>Depth (m) Depth (m) 2. Bu  | nic/Rotary Core (S<br>ar: Located in the se   | Remark<br>SO/RC) boreh<br>South of Rem<br>cidon Pit termi  | S<br>ole located in the Main sediation Zone PR2B.<br>nated at 0.20m bgl on h  |   | sworks,                               |
| oort ID: STANDARD COR   |                                    |   |  |                               |  |                                  |   | grant<br>3. SC<br>Corin<br>4. To<br>5. Gr<br>6. Si<br>notec<br>7. Bo                   | ted to progress borr<br>J/RC borehole adv<br>pography: Level Gi<br>oundwater strikes r<br>g encountered in n<br>d from 0.91m to 1.0<br>rrehole backfilled w | ehole via Son<br>anced via Sor<br>round.<br>not observed<br>material recov<br>J8m bgl.<br>/ith bentonite p | ic drilling.<br>nic drilling to 13.50m bg<br>during drilling due to ad<br>rered from ground level<br>pellets and arisings upo | l, and completed<br>dition of flush wa<br>to 3.93m bgl. O<br>n completion.                  | d via Rotary<br>ater.<br>rganic odour |
| Not   | es: For                            | explanatio  | n of symbols an  | nd abbr                       | eviati                                 | ons, se                          | ee Key Sheet. Scale: 1:25   | Logge  | eu ву: NS   |  | Checked E   | by: JVV   |                                       |

| A   | EC   | <b>O</b>   |                      | 5th<br>2 C<br>Lee   | Floor<br>Floor<br>tity Walk             | M  | T<br>F<br>V  | Tel: 0113 391<br>Fax: 0113 391<br>www.aecom.c   | 6800<br>I 6899<br>om   | AGS   | Bor  | ehole   | No. F-E   | 3H11   | 9   |
|---|--|--|----------------------|---|---|--|--|---|--|---|--|---|---|--|---|
| Equipment 8<br>0.00 - 0.20 li<br>0.25 - 13.50 S<br>13.50 - 28.50 F                              | Methods<br>nsulated Har<br>conic Drilling<br>totary Coring | S:<br>Id Tools<br>(Hammer ID: GS10)<br>I (Hammer ID: GS10) |                      | LS  | 11 9AR<br>Project<br>Project<br>Client: | Name: Net Ze<br>Location: Redo<br>BP                       | ro Teessio<br>car, North   | de Onshore<br>1 Yorkshire   | Ground In  | REGISTERED USER 202<br>Vestigation                                      | - Front End En   | gineering D   | Design (FEED)   | Job No:<br>6067  | 8042  |
|   |  |  |                      |   | Co-ordi<br>E: 4567<br>N: 5253           | nates:<br>/54.822<br>/99.922                               |  |   | Ground   | Level (m):  | 7.378 AOD  |   | Date Started:<br>Date Complete  | 09/08/2022<br>d: 12/08/2   | 2<br>2022   |
| In<br>Depth<br>(m)  | Situ Tesi<br>Sample<br>Ref &                               | ting<br>Test Type<br>and Result                            | Coring<br>TCR<br>SCR | Infor<br>FI   | mation<br>Core<br>Run                   |  | DE   | SCRIPTION   | l  |   |  | Reduced<br>Level<br>(m)   | Legend  | Depth<br>(Thick)<br>(m)  | Backfill/<br>Instrumen                                |
| 6   Project: V11.1 NZT GI.GPU   Library: NZT AGS 4_0 LIBRARY V1.3.GLB    Date: 29 November 2022 | C  |  | 96 94 77             | 4<br>3<br>NI<br>0<br>NI<br>17<br>CLAY<br>4<br>2<br>2<br>NI<br>7<br>CLAY | 25.50-<br>27.00<br>27.00-<br>28.50      | From 26.65<br>slightly sand<br>From 27.00<br>slightly sand | m to 26.<br>y CLAY<br>m to 27.<br>y CLAY<br>y CLAY<br><u>End</u><br>(Thi | .72m bgl:<br>. Sand is 1<br>. Sand is 1<br>. Sand is 1<br>. Sand is 1<br><b>i of Boreh</b><br>ickness of<br>not pro | Horizon of<br>fine to co<br>Horizon of<br>fine to co<br>ole 28.50<br>basal la<br>oven) | of stiff dar<br>arse.<br>of stiff dar<br>arse.<br>of stiff dar<br>arse. | 'k grey<br>'k grey<br>'k grey  | -21.12  |   |  |   |
| Ю<br>Wate   | er Strikes   |  | <u> </u> н           | lole D  | iamete                                  | r  | Progr  | ress  |  |   | 4. Carria/Datasa Carr  | Remar   | rks   | 04   |   |
| Postrike Flov   | v remark   |  | 146                  | e Dia<br>n)   | 28.50                                   | 10-08-2022<br>11-08-2022                                   | 09:45  | 25.50<br>28.50  | Casing<br>) Depth (m)<br>25.50<br>28.50  | ovater<br>Depth (m)<br>3.00   | Redcar. Located in t<br>2. Buried Service Ins<br>granted to progress<br>3. SO/RC borehole a<br>Coring to 28.50m bg<br>4. Topography: Leve<br>5. Groundwater strik<br>6. Slag encountered<br>noted from 0.91m to<br>7. Borehole backfille | he south of Rer<br>spection Pit term<br>borehole via So<br>I.<br>I Ground.<br>es not observec<br>in material recc<br>1.08m bgl.<br>d with bentonite | mentation 2 not the Maillin<br>mediation 2 one PR2B,<br>ninited at 0.20m bgl on t<br>onic drilling, to 13.50m bg<br>d during drilling to 13.50m bg<br>d during drilling due to ad<br>svered from ground level<br>a pellets and arisings upo | l, and complete<br>dition of flush w<br>to 3.93m bgl. (<br>n completion. | ermission<br>ed via Rotary<br>vater.<br>Organic odour |
| ⊮ Notes: For e  | xplanatio  | n of symbols an  | nd abbr              | eviati  | ons, se                                 | e Key Sheet.   |  | 5310. 1.20  |  | L   |  |   |   | -,. 011  |   |

| Λ   | -   | 5  | <b>A</b>                  | AE<br>5th                      | ECON<br>Floor                      | М   | т   | el: 0113 391                                     | 6800                              |                                       | Во  | rehole   | No. F-   | 3H11  | 6  |
|---|---|--|---------------------------|--------------------------------|------------------------------------|---|---|--|-----------------------------------|---------------------------------------|---|--|--|---|--|
| Equipment   | Method  |  |                           | 2 C<br>Lee<br>LS1              | ity Walk<br>ds<br>1 9AR<br>Project | Nama: Nat Za  | F<br>W  | ax: 0113 391<br>ww.aecom.co                      | 6899<br>om                        |                                       | 2 Sheet   | : 1 of 7   |  |   |  |
| 0.00 - 0.21 )<br>0.21 - 0.60 I<br>0.60 - 16.50    | Calibre Nep<br>nsulated Har<br>Sonic Drilling | tune Coring Rig<br>nd Tools<br>(Hammer ID: GS08) |                           | F                              | Project<br>Client: I               | Location: Redo  | ar, North   | Yorkshire  | Ground II                         | vesugation                            |   | ingineering i  |  | 6067  | 78042  |
| 16.50 - 31.00 F                                   | Rotary Coring                                 | g (Hammer ID: GS08)                              |                           | E                              | Co-ordir<br>E: 4569                | nates:<br>947.093   |   |  | Ground                            | Level (m):                            | 7.466 AO  | D  | Date Started:  | 16/08/202:  | 2  |
| In  | Situ Tes                                      | ting   | Coring                    | Infor                          | N: 5254<br>mation                  | 18.285  | DES   | SCRIPTION  |                                   |                                       |   | Reduced<br>Level   | Legend   | Depth<br>(Thick)  | Backfill/<br>Instrumer   |
| (m)   | Ref &<br>Type                                 | Test Type<br>and Result                          | SCR<br>RQD                | FI                             | Run                                |   |   | ork grov o                                       |                                   | aubraun                               | dad fina ta   |  |  | (m)   |  |
| -<br>-<br>-<br>-                                  |   |  |                           |                                |                                    | coarse GRA<br>content. Cob<br>(MADE GRO                                 | VEL of s<br>bles are<br><b>UND)</b>                       | and grey a<br>slag and c<br>angular              | oncrete                           | with low c                            | obble   |  |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-                       |  |
| - 0.60<br>-<br>-<br>-<br>-<br>1.00<br>-           |   | PID = 0.0ppm<br>PID = 0.1ppm                     |                           |                                | -                                  | MADE GRO<br>fine to coars<br>coarse                                     | UND: Da<br>e GRAV   | ark brown<br>ΈL of slag                          | sandy a<br>g and bri              | ngular to<br>ck. Sand                 | subrounder  | 6.51<br>d  |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-  |  |
| -<br>-<br>  |   | PID = 0.9ppm                                     |                           |                                |                                    | (MADE GRO   | UND)  |  |                                   |                                       |   |  |  | ×<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-  |  |
| -<br>2.00<br>                                     |   | PID = 1.7ppm                                     |                           |                                |                                    | At 1.94m bg   | l: Occas  | sional scra                                      | ap metal                          | present.                              |   |  |  |   |  |
| -<br>-2.50<br>-<br>-                              |   | PID = 26.6ppm                                    |                           |                                | -                                  | MADE GRO<br>with low cob<br>of brick. Gra<br>of slag and b<br>(MADE GRO | UND: Da<br>ble conte<br>vel is su<br>prick<br><b>UND)</b> | ark brown<br>ent. Cobb<br>bangular               | gravelly<br>les are a<br>to subro | fine to co<br>ngular to<br>unded fine | oarse SANE<br>subangula<br>e to coarse  | 4.96   |  | 2.51<br>(0.49)  |  |
| 3.00<br>  |   | PID = 4.2ppm                                     |                           |                                | -                                  | MADE GRO<br>fine to coars<br>(MADE GRO                                  | UND: Da<br>e GRAV<br><b>UND)</b>                          | ark brown<br>ΈL of slag                          | sandy a<br>g. Sand i              | ngular to<br>s fine to c              | subrounde<br>coarse   | 4.47   |  | 3.00  |  |
|   | В   | SPT(C) N>50<br>16,9 for<br>15mm/37,13 for<br>5mm |                           |                                |                                    | From 3.52m<br>NOTE: Prop  | bgl bec   | comes ver  | y sandy.<br>n level 3.            | 8m AOD.                               |   |  |  | (1.93)  |  |
| -<br>-<br>4.45- 4.50<br>-<br>4.90- 4.93<br>-<br>- | D<br>B  | SPT(C) N=19<br>10,11/<br>7,5,3,4                 |                           |                                |                                    | At 4.45m bg<br>present.   | l: Pale fi  | ine graine                                       | ed sands                          | tone fragr                            | nents   |  |  |   |  |
| - 4.90<br>4.93- 5.10                              | ES<br>D                                       |  |                           |                                |                                    |   |   |  |                                   |                                       |   | 2.54   |  | 4.93  |  |
| Strike Flov<br>Depth                              | er Strikes<br>v Remark                        | s<br>(S  | Hole<br>(mm<br>300<br>Ins | ole D<br>e Dia<br>1)<br>c. Pit | Depth<br>Hole (n<br>0.21<br>0.60   | r<br>of Date<br>n)<br>16-08-2022<br>01-09-2022<br>01-09-2022            | Progre<br>Time<br>14:15<br>16:15<br>17:30                 | ess<br>Hole<br>Depth (m)<br>0.21<br>0.60<br>1.50 | Casing<br>Depth (m<br>1.50        | Water<br>) Depth (m)                  | 1. Sonic/Rotary C<br>Redcar. Located i<br>2. Concrete core e<br>0.60m bgl on harc<br>S. SO/RC borehol<br>Coring to 31.00m<br>4. Topography: Le<br>5. Groundwater st<br>6. Slag and refrac<br>4.93m bgl. No off<br>7. Borehole board | Kema<br>ore (SO/RC) bore<br>n the north of Rei<br>stratum. Permiss<br>e advanced via S<br>bgl.<br>vel Ground.<br>rikes not observe<br>tory material ence<br>ictory evidence o<br>ictory evidence o | TKS<br>ehole located in the Main<br>mediation Zone PR1B.<br>Im bgl. Buried Service In<br>sion granted to progress<br>ionic drilling to 16.50m bg<br>d during drilling due to ac<br>ountered in material reco<br>f contamination. | Site area of Te<br>spection Pit ter<br>borehole via So<br>gl, and complet<br>ddition of flush v<br>vered from gro | eesworks,<br>minated at<br>onic drilling.<br>ed via Rotary<br>water.<br>und level to |
| Notes: For 6                                      | explanatio                                    | on of symbols an                                 | d abbre                   | eviatio                        | ons, see                           | e Key Sheet.  | Sc  | cale: 1:25                                       |                                   | <br>                                  | ogged By: R   | B  | Checked I  | By: JW  |  |

| A  | C                             | <b>CON</b>                                     | 1          | 5th                   | ECON<br>Floor<br>City Walk        | Tel: 0113 39<br>Fax: 0113 30   | 1 6800<br>91 6899<br>AGS                                   | Bore   | ehole   | No. F-E   | 3H11   | 6                                       |
|--|-------------------------------|--|------------|-----------------------|-----------------------------------|--|--|--|---|---|--|---|
| Equipment 8<br>0.00 - 0.21 X<br>0.21 - 0.60 Ir | Calibre Nep                   | S:<br>otune Coring Rig<br>nd Tools             |            | Lee                   | Project I<br>Project I            | www.aecom<br>Name: Net Zero Teesside Onshor<br>Location: Redcar, North Yorkshire | e Ground Investigation - Fr                                | Sheet:<br>ont End Eng  | 2 of 7<br>gineering D   | esign (FEED)  | Job No:<br>6067  | 8042                                    |
| 0.60 - 16.50 S<br>16.50 - 31.00 F              | onic Drilling<br>otary Coring | ı (Hammer ID: GS08)<br>g (Hammer ID: GS08)     |            |                       | Client: E<br>Co-ordir<br>E: 45694 | BP<br>nates:<br>47.093   | Ground Level (m):<br>7.4                                   | 66 AOD   |   | Date Started:   | 16/08/2022   | 2                                       |
| In<br>Depth                                    | Situ Tes<br>Sample            | ting   | Coring     | Infor                 | N: 5254<br>mation<br>Core         | 18.285<br>DESCRIPTIO   | N  |  | Reduced<br>Level<br>(m)   | Legend  | Depth<br>(Thick)   | Backfill/<br>Instrumen                  |
| (m)<br>5.00<br>- 5.10- 6.00                    | Ref &<br>Type<br>B            | and Result<br>PID = 1.9ppm                     | RQD        |                       | Run                               | Medium dense light brown fir   | ne to coarse silty SANI                                    | D with   |   | · · · · · · · · · · · ·   | _  |   |
| -  |                               |  |            |                       |                                   | (TIDAL FLAT DEPOSITS)  | and is mottled black wi                                    | ith  |   | · · · · · · · · · · · ·   | -  |   |
| -  |                               |  |            |                       | 1                                 | frequent rootlets.   |  | iu i   |   |   | -  |   |
| -<br>-<br>- 5.90                               | ES                            |  |            |                       |                                   |  |  |  |   | · · · · · · · · · · · · · · · · · · ·   | -  |   |
| <b>6.00-</b> 6.70<br>-                         | В                             | PID = 1.3ppm<br>SPT(S) N=12<br>3,2/            |            |                       |                                   | From 6.00m to 6.62m bgl: B   | ecomes dark brown me                                       | ottled   |   |   | -  |   |
| -  |                               | 3,3,3,3  |            |                       |                                   | DIACK.   |  |  |   | · · · · · · · · · · · · · · · · · · ·   | -  |   |
| -  |                               |  |            |                       |                                   |  |  |  |   |   | -  |   |
| 6.75<br>- 6.80- 7.50<br>-                      | B                             | <b>DID = 1 1</b> 000                           |            |                       |                                   |  |  |  |   |   | -  |   |
| -  |                               |  |            |                       |                                   |  |  |  |   | · · · · · · · · · · · ·   | -  |   |
| -<br>-<br><b>7.50-</b> 8.20                    | В                             | SPT(S) N=25                                    |            |                       |                                   |  |  |  |   |   | -  |   |
| ember 2022                                     |                               | 3,4/<br>5,5,6,9                                |            |                       |                                   |  |  |  |   |   | -  |   |
| ate: 59 Nov<br>                                |                               | PID = 0.7ppm                                   |            |                       |                                   |  |  |  |   | · · · · · · · · · · · · · · · · · · ·   | - (5.99)<br>—  |   |
| යි –<br>mg –<br>ප – 8.25<br>ද: – 8.30- 9.00    | D<br>B                        |  |            |                       |                                   |  |  |  |   |   | -  |   |
|  |                               |  |            |                       |                                   |  |  |  |   | · · · · · · · · · · · · · · · · · · ·   | -<br>  |   |
| T AGS 4 01                                     |                               |  |            |                       |                                   |  |  |  |   |   | -  |   |
| DI - 19.00- 9.70                               | В                             | PID = 0.7ppm<br>SPT(S) N=23<br>2,4/<br>3 5 7 8 |            |                       |                                   |  |  |  |   |   | -  |   |
| 1 01.GPJ                                       |                               | 0,0,7,0  |            |                       |                                   | From 9.09m to 10.03m bgl: I  | -requent sand sized co                                     | oal.   |   |   | -  |   |
|  |                               |  |            |                       |                                   |  |  |  |   | · · · · · · · · · · · · · · · · · · ·   |  |   |
| 9.75<br>2 9.80- 10.50                          | B                             |  |            |                       |                                   |  |  |  |   | · · · · · · · · · · · · · · · · · · ·   | -  |   |
| Wate<br>OStrike Flow                           | er Strikes<br>/ Remark        | S<br>KS  | Hol<br>(mr | lole D<br>e Dia<br>n) | iameter<br>Depth o<br>Hole (m     | r Progress<br>of Date Time Hole<br>n) Depth (n                                   | Casing Water 1. Sc<br>n) Depth (m) Depth (m) 2. Cc<br>0.60 | onic/Rotary Core<br>car. Located in th<br>oncrete core com<br>m bgl on hard str  | Remarl<br>(SO/RC) boreh<br>e north of Rem<br>pleted to 0.21n<br>atum. Permissi                    | ks<br>nole located in the Main<br>ediation Zone PR1B.<br>n bgl. Buried Service Ins<br>on granted to progress I                    | Site area of Tee<br>spection Pit tern<br>porehole via So                 | esworks,<br>ninated at<br>nic drilling. |
| : STANDARD CC                                  |                               |  |            |                       |                                   |  | 3. S(<br>Corir<br>4. Tc<br>5. G(<br>6. SI<br>4.93<br>7. Bc | D/RC borehole a<br>ng to 31.00m bgl<br>popgraphy: Level<br>roundwater strike<br>ag and refractory<br>m bgl. No olfacto<br>prehole backfilled | dvanced via So<br>Ground.<br>s not observed<br>material encou<br>ry evidence of<br>with bentonite | nic drilling to 16.50m bg<br>during drilling due to ad<br>untered in material recov<br>contamination.<br>pellets and arisings upo | I, and complete<br>dition of flush w<br>vered from grou<br>n completion. | d via Rotary<br>ater.<br>Ind level to   |
| =<br>ਹਰੀ<br>ਅ<br>Notes: For e                  | xplanatio                     | on of symbols an                               | d abbr     | eviati                | ons, see                          | e Key Sheet. Scale: 1:25   | Loggi  | ed By: RB  |   | Checked E   | By: JW   |   |

|                      | Λ:               |                  | 1                   |                           | A          | A                | ECO                                   | м                 | т                    | al: 0112 201                | 6900                |                   |                     | Bore                              | ehole                         | No. F-E   | 3H11                                 | 6                              |
|----------------------|------------------|------------------|---------------------|---------------------------|------------|------------------|---------------------------------------|-------------------|----------------------|-----------------------------|---------------------|-------------------|---------------------|-----------------------------------|-------------------------------|---|--------------------------------------|--------------------------------|
|                      |                  |                  |                     |                           |            | 2 C<br>Lee<br>LS | i Floor<br>City Walk<br>eds<br>11 9AR | ζ.                | F<br>W               | ax: 0113 391<br>ww.aecom.co | 6899<br>om          |                   | 2022                | Sheet: 3                          | 3 of 7                        |   |                                      |                                |
| Eq                   | uipmen           | t & Me           | ethods              | 3:                        |            |                  | Project                               | Name: Net Zer     | o Teessid            | le Onshore                  | Ground In           | vestigatio        | n - Fror            | nt End Eng                        | ineering D                    | esign (FEED)  | Job No:                              |                                |
| 0.00                 | - 0.21<br>- 0.60 | XCalib<br>Insula | ore Nept<br>ted Han | une Coring Rig<br>d Tools |            |                  | Project                               | Location: Redu    | ar, North            | Yorkshire                   |                     |                   |                     |                                   |                               |   | 6067                                 | 8042                           |
| 0.60 ·               | - 16.50          | Sonic            | Drilling            | (Hammer ID: GS08)         |            |                  | Client:                               | BP                |                      |                             |                     |                   |                     |                                   |                               |   |                                      |                                |
| 16.50                | 0 - 31.00        | Rotary           | y Coring            | (Hammer ID: GS08)         |            |                  | Co-ord                                | inates:           |                      |                             | Ground              | Level (m)         | ):                  |                                   |                               | Date Started:   | 16/08/2022                           | 2                              |
|                      |                  |                  |                     |                           |            |                  | E. 4508<br>N: 5254                    | 47.095<br>418.285 |                      |                             |                     |                   | 7.466               | S AOD                             |                               | Date Complete   | ed: 07/09/2                          | 2022                           |
|                      |                  | In Situ          | u Test              | ing                       | Corin      | g Infoi          | rmation                               |                   |                      |                             |                     |                   |                     |                                   | Reduced                       |   | Depth                                | Backfill/                      |
|                      | Depth            | Sa               | ample               | Test Type                 | TCR        | FI               | Core                                  |                   | DES                  | SCRIPTION                   |                     |                   |                     |                                   | (m)                           | Legend  | (Thick)<br>(m)                       | Instrument                     |
| 10                   | (m)              | Ť                | уре                 | and Result                | RQD        |                  | Run                                   |                   |                      |                             |                     |                   |                     |                                   |                               |   |                                      |                                |
| - 10                 | .00              |                  |                     | 1 ID = 0.5ppiii           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | · · · · · · · ·   | -                                    |                                |
| -                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| -                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| -                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| -10                  | <b>.50-</b> 10   | .92              | в                   | SPT(S) N=14               |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | · · · · · · · · ·   | -                                    |                                |
| -                    |                  |                  |                     | 3,3/<br>4,5,3,2           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| -                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| -                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| - 10                 | .92- 11          | .02              | D                   |                           |            |                  |                                       | Soft locally fi   | rm arevi             | ish hrown                   | sandy si            |                   | V San               | d is fine                         | -3.45                         | · <u> </u>  | - 10.92                              |                                |
| -11                  | :02-11           | .83              | в                   | PID = 0.0ppm              |            |                  |                                       | to coarse         | ini grey             |                             | Sundy S             |                   | r. oun              |                                   |                               |   |                                      |                                |
| Γ                    |                  |                  |                     |                           |            |                  |                                       | N.B. Matoria      | lic grad             | od cliabt                   | veandv              | at top to         | condu               | , at                              |                               | <u> </u>  |                                      |                                |
| Ε                    |                  |                  |                     |                           |            |                  |                                       | base              | r is grau            | eu, siigitu                 | y sanuy a           | at top to         | sanuy               | al                                |                               |   |                                      |                                |
| E                    |                  |                  |                     |                           |            |                  |                                       | (TIDAL FLAT       | DEPOS                | SITS)                       |                     |                   |                     |                                   |                               |   | (0.91)                               |                                |
| L_11                 | .50              |                  | ES                  |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | <br>  |                                      |                                |
| L                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| F                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| + 11                 | 83-12            | 00               | П                   |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   | -4.36                         |   | - 11.83                              |                                |
| + ''                 | .00- 12.         | .00              |                     |                           |            |                  |                                       | Medium den        | se dark              | brown mo                    | ttled ligh          | t brown           | locally             | / clayey                          |                               | - · · · · · · · · · · · · ·   | -                                    |                                |
| -12                  | . <b>00-</b> 12  | .53              | В                   | PID = 0.2ppm              |            |                  |                                       | (TIDAL FLA)       | B SAND               | with occa                   | isional si          | ieli tragi        | ments               |                                   |                               | ·   | ┝ │                                  |                                |
| 12                   | .00              |                  | SS                  | SPT(S) N=18<br>2,3/       |            |                  |                                       | (                 |                      |                             |                     |                   |                     |                                   |                               | · . · · · · · · · · · · · · ·   | (0,70)                               |                                |
| F                    |                  |                  |                     | 4,4,5,5                   |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | <u> </u>  | - (0.70)                             |                                |
| F                    |                  |                  |                     |                           |            |                  |                                       | From 12.17        | n to 12.             | 53m bgl: '                  | Very clay           | ey.               |                     |                                   |                               | · · . · ·   | -                                    |                                |
| F                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | . <del></del> <del></del> <del>.</del>                                    | -                                    |                                |
| 12                   | .53- 12          | .88              | D                   |                           |            |                  |                                       | Dark brown        | nottled I            | light brow                  | n fine to           | coarse s          | silty SA            |                                   | -5.06                         | <del></del>   | -12.53                               |                                |
| 2                    |                  |                  |                     |                           |            |                  |                                       | with occasio      | nal shell            | fragment                    | s                   |                   | Sincy Of            |                                   |                               | · · · · · · · ·   | [                                    |                                |
|                      |                  |                  |                     |                           |            |                  |                                       | (TIDAL FLAT       | DEPOS                | SITS)                       |                     |                   |                     |                                   |                               |   |                                      |                                |
| Ž 12                 | .88- 13          | .50              | в                   |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | -                                    |                                |
| <sup>₽</sup> , −13   | .00              |                  | ES                  |                           |            |                  |                                       | From 12 89        | n bal <sup>.</sup> B | ecomes r                    | nottled bl          | ack               |                     |                                   |                               |   | L                                    |                                |
| Late                 |                  |                  |                     |                           |            |                  |                                       | 11011112.000      | n ogi. D             |                             |                     | aon.              |                     |                                   |                               |   | -                                    |                                |
| <u>-</u> -           |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | (1 47)                               |                                |
| פֿ<br>יי             |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | • • • • • • • • • • •   | - (1.47)                             |                                |
| 5-<br>5              |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | · · · · · · · · ·   | -                                    |                                |
| ¥—13                 | .50- 14          | .00 U            | T100                | 100 % recovery            |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | • • • • • • • • • •   | -                                    |                                |
|                      |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | · · · · · · · · · ·   | -                                    |                                |
| 4                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   |                                      |                                |
| Per [                |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | • • • • • • • •<br>• • • • • • • •  | [                                    |                                |
|                      | .00- 14          | 45               | в                   | PID = 0.1nnm              |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   | -6.53                         |   | _14.00                               |                                |
|                      | .00              |                  | ËS                  | 0. ippili                 |            |                  |                                       | Soft locally fi   | rm greyi             | ish brown                   | mottled             | black Cl          | LAY w               | ith                               |                               |   |                                      |                                |
| Ĭ                    |                  |                  |                     |                           |            |                  |                                       | (TIDAL FLA        | DEPOS                | SITS)                       |                     |                   |                     |                                   |                               | <u>+</u>  |                                      |                                |
|                      |                  |                  |                     |                           |            |                  |                                       |                   |                      | ,                           |                     |                   |                     |                                   |                               | <br> \/   | ╞                                    |                                |
| <u>-</u>             |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | <u> </u>  | ╞──│                                 |                                |
| 2-14                 | .50              |                  | D                   |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | ╞──│                                 |                                |
| =  14<br>=           | .55- 15.         | .00              | в                   |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               | <u></u> <u></u>   | -                                    |                                |
|                      |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | (1.50)                               |                                |
| ē-                   |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   | F                                    |                                |
|                      |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   |                                      |                                |
|                      | W                | ater S           | trikes              |                           | ŀ          | lole D           | Diamete                               | r .               | Progre               | ess                         | <b>o</b> :          | 141 -             | 1.0                 | Poterio                           | Remar                         | ks  | Site error ( T                       | anwatka                        |
| 5   Stril<br>H   Der | ke   Fi<br>oth   | ow Re            | emark               | S                         | Hol<br>(mr | e Dia<br>n)      | Depth<br>Hole (                       | of Date<br>m)     | Time                 | Hole<br>Depth (m)           | Casing<br>Depth (m) | Water<br>Depth (m | 1. Sonic<br>Redcar  | CROTARY Core (<br>Located in the  | SU/RC) bore<br>north of Ren   | noie located in the Main<br>nediation Zone PR1B.                          | Site area of Te                      | esworks,                       |
|                      |                  |                  |                     |                           |            | ,                |                                       | 02-09-2022        | 12:00                | 10.50                       | 10.50               | 4.80              | 0.60m b<br>3. SO/F  | ogl on hard stra<br>C borehole ad | tum. Permiss<br>vanced via So | ion granted to progress lonic drilling to 16.50m bo                       | porehole via So<br>l, and complete   | nic drilling.<br>ed via Rotary |
|                      |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   | Coring t<br>4. Topo | o 31.00m bgl.<br>graphy: Level (  | Ground.                       |   |                                      |                                |
| NUA                  |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   | 5. Grou<br>6. Slag  | ndwater strikes<br>and refractory | not observed                  | during drilling due to ad<br>untered in material recover<br>contamination | dition of flush w<br>vered from grou | vater.<br>Ind level to         |
| SIA                  |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   | 7. Borel            | hole backfilled                   | with bentonite                | pellets and arisings upo  | n completion.                        |                                |
| Ë                    |                  |                  |                     |                           |            |                  |                                       |                   |                      |                             |                     |                   |                     |                                   |                               |   |                                      |                                |
|                      | Ites: Fo         | r evol-          | anatio              | n of symbole on           | d abbr     | eviati           |                                       | e Key Sheet       | Sc                   | l<br>ale: 1:25              |                     | L                 | Logged              | By: RB                            |                               | Checked E   | By: JW                               |                                |
|                      |                  | - cyhia          | anau0               | n or symbols an           | u anni     | Judi             | 5113, 56                              | o noy oneet.      |                      |                             |                     |                   |                     |                                   |                               |   |                                      |                                |

|             | A                   |               | <b>CON</b>           |                  | <b>A</b><br>5th<br>2 C | ECON<br>Floor<br>ity Walk | N                | Te<br>Fa    | el: 0113 391<br>ax: 0113 391 | 6800<br>6899 |                     | Bore  | ehole                            | No. F   | -BH11  | 6                               |
|-------------|---------------------|---------------|----------------------|------------------|------------------------|---------------------------|------------------|-------------|------------------------------|--------------|---------------------|---|----------------------------------|---|--|---------------------------------|
|             |                     |               |                      |                  | Lee<br>LS              | eds<br>11 9AR             |                  | w           | ww.aecom.c                   | om           | REGISTERED USER 202 | 2 Sheet:  | 4 of 7                           |   |  |                                 |
|             | Equipment &         | Method        | s:                   |                  | F                      | Project                   | Name: Net Zer    | o Teessid   | e Onshore                    | Ground In    | vestigation         | - Front End Eng                                 | jineering D                      | Design (FEED)                                     | Job No:                                      |                                 |
|             | 0.00 - 0.21         | Calibre Nep   | otune Coring Rig     |                  | 1                      | Project                   | Location: Redo   | ar, North   | Yorkshire                    |              |                     |   |                                  |   | 6067   | 8042                            |
|             | 0.21 - 0.60 I       | nsulated Har  | nd Tools             |                  |                        | Cliont                    |                  | ,           |                              |              |                     |   |                                  |   |  | 00.2                            |
|             | 0.60 - 16.50 S      | onic Drilling | (Hammer ID: GS08)    |                  |                        |                           |                  |             |                              | 0            | 1                   |   |                                  | Data Otarta                                       | 1. 40/00/000                                 |                                 |
|             | 10.00 - 01.00 1     | totary coning | g (naminer 15: 0000) |                  |                        | Co-ordii<br>E: 4569       | nates:<br>47.093 |             |                              | Ground       | Level (m):          |   |                                  | Date Starte                                       | d: 16/08/202                                 | 2                               |
|             |                     |               |                      |                  |                        | N: 5254                   | 18.285           |             |                              |              |                     | 7.400 AOD                                       |                                  | Date Comp   | eted: 07/09/2                                | 2022                            |
|             | In                  | Situ Tes      | ting                 | Coring           | g Infor                | mation                    |                  |             |                              |              |                     |   | Reduced                          |   | Depth  | Backfill/                       |
|             | Depth               | Sample        | T                    | TCR              | -                      | Core                      |                  | DES         | CRIPTION                     | I            |                     |   | Level<br>(m)                     | Legend  | (Thick)                                      | Instrument                      |
|             | (m)                 | Ref &         | and Result           | SCR              | FI                     | Run                       |                  |             |                              |              |                     |   | (,                               |   | (11)   |                                 |
|             | <b>15.00-</b> 15.50 | u U Ť Ť ŎĊ    | PID = 0.0ppm         | RQD              |                        |                           |                  |             |                              |              |                     |   |                                  |   | _  |                                 |
|             | -                   |               | 100 % recovery       | /                |                        |                           | At 14.95m b      | gl: Black   | very org                     | anic laye    | r present           | t.  |                                  |   | <del>_</del> +                               |                                 |
| ł           | -                   |               |                      |                  |                        |                           |                  | -           |                              | -            |                     |   |                                  |   | <b>子</b>                                     |                                 |
| ł           | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | /7  | ╶┟  │  |                                 |
|             | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | [   | <u>-</u> +                                   |                                 |
|             | -15.50- 15.9        | БВ            |                      |                  |                        | -                         |                  |             |                              |              |                     |   | -8.03                            |   | 15.50  |                                 |
|             | -                   |               |                      |                  |                        |                           | Firm locally s   | stiff reddi | ISh browr                    | n mottled    | grey sligi          | htly gravelly                                   |                                  |   | -  |                                 |
|             | -                   |               |                      |                  |                        |                           | subangular f     | ine to co   | arse of s                    | andstone     | e chert an          | id mudstone.                                    |                                  |   | <u></u>                                      |                                 |
|             | -                   | 1             |                      |                  |                        |                           | Sand is fine     | to coarse   | Э                            |              |                     |   |                                  | <u> </u>  | -].  |                                 |
|             | _                   |               |                      |                  |                        |                           | (TILL: DEVE      | NSIAN)      |                              |              |                     |   |                                  |   | <u>-</u>                                     |                                 |
| [           | -16.00              |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | [   | <u>-L</u>                                    |                                 |
|             | 16.05- 16.50        | ES            |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u></u>                                      |                                 |
| Ì           |                     | В             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | ~ <u>_</u>                                   |                                 |
|             | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -1   |                                 |
|             | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u> </u>                                     |                                 |
|             | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u> </u>                                     |                                 |
|             | _                   | 1             |                      | $\left  \right $ |                        | 16.50-                    |                  |             |                              |              |                     |   |                                  |   | <u>,                                    </u> |                                 |
|             | -                   | 1             |                      |                  |                        | 17.50                     |                  |             |                              |              |                     |   |                                  | <u> </u>  | -1   |                                 |
|             | -                   | 1             |                      |                  |                        |                           | From 16.57       | n bgl: Be   | ecomes f                     | irm to stil  | f.                  |   |                                  |   | <u>-</u>                                     |                                 |
|             | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u>-</u>                                     |                                 |
|             | -                   |               |                      | 100              |                        |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | -1-  |                                 |
| ł           | _                   |               |                      | 0                |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u>-</u>                                     |                                 |
|             | - 17.10- 17.40      | c c           |                      | 0                |                        |                           |                  |             |                              |              |                     |   |                                  |   |  |                                 |
|             | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   |  |                                 |
|             | _                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | - <u> </u>  |  |                                 |
|             | _                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -1   |                                 |
|             | _                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | ₅  |                                 |
| 2           | _                   |               |                      |                  |                        | 17.50-                    |                  |             |                              |              |                     |   |                                  |   |  |                                 |
| - 202       | -                   |               |                      |                  |                        | 19.00                     |                  |             |                              |              |                     |   |                                  |   | <del>,</del> [                               |                                 |
| nber        | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -1   |                                 |
| Sver        | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -1,  |                                 |
| Ž 6         | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | 5 (4.81)                                     |                                 |
| te: 2       | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | _†_  |                                 |
| Dai         | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u>-</u> ]                                   |                                 |
| 9           | -                   |               |                      | 100              |                        |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | ╶┟  │  |                                 |
| Э.С         | -                   |               |                      | 0                |                        |                           |                  |             |                              |              |                     |   |                                  |   |  |                                 |
| 2.          | -                   | 1             |                      |                  | CLAY                   |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | <u>-</u> ]                                   |                                 |
| ARY         | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -]-  |                                 |
| IBR,        | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u>-</u>                                     |                                 |
| 0           | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | <u> </u>                                     |                                 |
| S 4         | _                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | <u> </u>                                     |                                 |
| ΡΑG         | _                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -1   |                                 |
| Z           | _                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | <u>-</u> L                                   |                                 |
| ary:        |                     | 1             |                      |                  |                        | 19.00-                    |                  |             |                              |              |                     |   |                                  |   | <u> </u>                                     |                                 |
| Libr        | -                   | 1             |                      |                  |                        | 20.50                     |                  |             |                              |              |                     |   |                                  | - <u> </u>  | _1   |                                 |
| 2           | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | 5]   |                                 |
| Ъ.          | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | <u> </u>  | -1   |                                 |
| б<br>Н      | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | _+   |                                 |
| Z           | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  | └─ <u>°</u>                                       | <b>≟†</b> │                                  |                                 |
| 11.1        | -                   | 1             |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | -1   |                                 |
| -<br>S      | -                   | 1             |                      | 30               |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u>∽</u> ⊦ ∣                                 |                                 |
| roje        | -                   | 1             |                      | 0                |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u>-</u> +                                   |                                 |
| E E         | -                   |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   | <u> </u>                                     |                                 |
| ő           |                     |               |                      |                  |                        |                           |                  |             |                              |              |                     |   | L                                | <u> </u>  | -1   |                                 |
| ų.          | Strike Flow         | er Strikes    | \$<br>(\$            |                  | tole D                 | Iametei                   | r<br>of Date     | Progre      | ess<br>Hole                  | Casing       | Water               | 1. Sonic/Rotarv Core                            | Remar<br>(SO/RC) bore            | rKS<br>shole located in the N                     | lain Site area of Te                         | esworks,                        |
| 믭           | Depth               |               |                      | (mn              | n)                     | Hole (r                   | n)               |             | Depth (m)                    | Depth (m     | Depth (m)           | Redcar. Located in th<br>2. Concrete core com   | e north of Ren<br>pleted to 0.21 | nediation Zone PR1<br>m bgl. Buried Service       | 3.<br>e Inspection Pit ter                   | ninated at                      |
| ÖR          |                     |               |                      | 194              | -                      | 16.50                     | 05-09-2022       | 14:45       | 16.50                        | 16.50        |                     | 0.60m bgl on hard stra<br>3. SO/RC borehole ad  | atum. Permiss                    | sion granted to progr<br>onic drilling to 16.50   | ess borehole via So<br>n bgl, and complet    | onic drilling.<br>ed via Rotary |
| D<br>D<br>C |                     |               |                      |                  |                        |                           |                  |             |                              |              |                     | Coring to 31.00m bgl.<br>4. Topography: Level   | Ground.                          | 3 10.001  | 5  | ,                               |
| DAR         |                     |               |                      |                  |                        |                           |                  |             |                              |              |                     | 5. Groundwater strike<br>6. Slag and refractory | s not observed                   | d during drilling due t<br>ountered in material r | o addition of flush v<br>ecovered from are   | vater.<br>und level to          |
| ANL         |                     |               |                      |                  |                        |                           |                  |             |                              |              |                     | 4.93m bgl. No olfacto<br>7. Borehole backfilled | ry evidence of<br>with bentonite | contamination.                                    | upon completion                              |                                 |
| S           |                     |               |                      |                  |                        |                           |                  |             |                              |              |                     | Subtrained                                      |                                  | anon igo  |  |                                 |
| Ξ           |                     |               |                      |                  |                        |                           |                  |             |                              |              |                     |   |                                  |   |  |                                 |
| Sepo        | Notes: For e        | xplanatio     | on of symbols an     | d abbr           | eviatio                | ons. se                   | e Key Sheet.     | Sc          | ale: 1:25                    |              | L                   | ogged By: RB                                    |                                  | Check   | ed By: JW                                    |                                 |
| ιζį         |                     | r             | j                    |                  |                        |                           |                  | I           |                              |              |                     |   |                                  | I   |  |                                 |

|                   | ΛΞ  |  | 5   | A               | <b>A</b>               |                               | М  | т                                    | -ol: 0113 301                         | 6800                                 |  |  | Bore   | ehole  | No. F-  | BH116                      | 5                       |
|-------------------|---|--|---|-----------------|------------------------|-------------------------------|--|--------------------------------------|---------------------------------------|--------------------------------------|--|--|--|--|---|----------------------------|-------------------------|
|                   |   |  | UN  |                 | 2 C<br>Le              | City Walk<br>eds<br>11 9AR    |  | F.<br>W                              | ax: 0113 391<br>ww.aecom.c            | 1 6899<br>om                         | AGS                                      | 22   | Sheet:   | 5 of 7   |   |                            |                         |
| 0.0<br>0.2<br>0.6 | Equipment &<br>00 - 0.21 X0<br>21 - 0.60 In:<br>50 - 16.50 So | Methods<br>calibre Nept<br>sulated Han<br>nic Drilling | :<br>une Coring Rig<br>d Tools<br>(Hammer ID: GS08) |                 |                        | Project<br>Project<br>Client: | Name: Net Ze<br>Location: Rede<br>BP     | ro Teessid<br>car, North             | le Onshore<br>Yorkshire               | Ground In                            | vestigation                              | - Fron                                     | it End Eng   | gineering [  | Design (FEED)   | Job No:<br>60678           | 3042                    |
| 16.               | .50 - 31.00 Ro  | tary Coring  | (Hammer ID: GS08)                                   |                 |                        | Co-ordi<br>E: 4569            | nates:<br>47.093                         |                                      |                                       | Ground                               | Level (m):                               | 7.466                                      | 6 AOD  |  | Date Started:<br>Date Comple  | 16/08/2022<br>ted: 07/09/2 | 022                     |
|                   | In S<br>Depth   | Situ Test  | ing<br>Test Type                                    | Corine<br>TCR   | g Info                 | rmation<br>Core               | 10.205                                   | DES                                  | SCRIPTION                             | 1                                    |  |  |  | Reduced<br>Level<br>(m)  | Legend  | Depth<br>(Thick)<br>(m)    | Backfill/<br>Instrument |
|                   | (m)   | Type   | and Result  | RQD             |                        | Run                           |  |                                      |                                       |                                      |  |  |  |  | <u> </u>  |                            |                         |
|                   | 20.12-20.00   | Ũ  |   |                 |                        |                               |  |                                      |                                       |                                      | <u></u>                                  |  |  | -12.84   |   | 20.31                      |                         |
| Ļ                 | 0.55  | FO   |   |                 |                        | 20.50                         | Weak locally<br>MUDSTONE<br>gravelly CLA | y very we<br>E. Locally<br>\Y. Grave | eak thinly<br>y recover<br>el is angu | laminate<br>ed as sof<br>Ilar to sub | d dark blu<br>t to firm fr<br>pangular ( | uish g<br>riable<br>of mu                  | rey<br>very<br>idstone                               |  |   | -                          |                         |
| -                 | 20.55   | ES   |   |                 |                        | 22.00                         | (REDCAR M                                | UDSTON                               | NE FORM                               | ATION)                               |  |  |  |  |   |                            |                         |
| -                 |   |  |   |                 | NI                     |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| E                 |   |  |   | 100             |                        |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
|                   |   |  |   | 0               | 0                      | -                             |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| -                 |   |  |   |                 | NI                     |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| -                 |   |  |   |                 |                        |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| -2                | 22.00   | с  |   |                 | 0                      | 22.00-                        |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
|                   |   |  |   |                 |                        | 23.50                         | From 22.00                               | m to 23.                             | 71m bgl:                              | Recovere                             | ed as firm                               | ı grey                                     | r clay.  |  |   |                            |                         |
| -                 |   |  |   |                 |                        |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| nber 2022<br>I I  |   |  |   | 100<br>0        |                        |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| 29 Nover          |   |  |   | 0               | CLAY                   |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| -B    Date:       |   |  |   |                 |                        |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| Y V1.3.GI         |   |  |   |                 |                        |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
|                   |   |  |   |                 |                        | 23.50-<br>25.00               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| AGS 4 (           |   |  |   |                 | 0                      |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
| rary: NZI         |   |  |   |                 | CLAY<br>0              | -                             | From 23.91                               | m to 23.9                            | 99m bgl:                              | Recovere                             | ed as firm                               | ı grey                                     | clay.  |  |   |                            |                         |
| GPJ    Lit        |   |  |   | 100<br>26<br>23 | CLAY<br>0              | -                             | From 24.14                               | m to 24.2                            | 23m bgl:                              | Recovere                             | ed as stiff                              | grey                                       | clay.  |  |   |                            |                         |
| 1 NZT GI          |   |  |   |                 |                        |                               | From 24.27                               | m to 25.0                            | 00m bgl:                              | Recovere                             | ed as stiff                              | grey                                       | clay.  |  |   |                            |                         |
| ject: V11.        |   |  |   |                 | CLAY                   |                               |  |                                      |                                       |                                      |  |  |  |  |   |                            |                         |
|                   |   |  |   |                 |                        |                               |  |                                      |                                       |                                      |  | 1  |  |  |   |                            |                         |
| ZEHOLE L          | Wate<br>trike Flow<br>epth                                    | r Strikes<br>Remark                                    | S   | Hol<br>(mr      | Hole E<br>le Dia<br>m) | Diamete<br>Depth<br>Hole (r   | r<br>of Date<br>n)                       | Progre<br>Time                       | ess<br>Hole<br>Depth (m)              | Casing<br>) Depth (m)                | Water<br>Depth (m)                       | 1. Sonic<br>Redcar.<br>2. Conc             | c/Rotary Core<br>Located in the<br>rete core com     | Reman<br>(SO/RC) bore<br>in a north of Ren<br>inpleted to 0.21 | rks<br>hole located in the Mai<br>nediation Zone PR1B.<br>m bgl. Buried Service | n Site area of Tee         | sworks,<br>inated at    |
| DARD COF          |   |  |   |                 |                        |                               | 06-09-2022                               | 12:45                                | 25.00                                 | 25.00                                |  | 3. SO/R<br>Coring t<br>4. Topo<br>5. Groun | co 31.00m bgl<br>graphy: Level<br>ndwater strike     | dvanced via So<br>dvanced via So<br>Ground.<br>is not observed | d during drilling due to a  | addition of flush wa       | ater.                   |
| D: STANE          |   |  |   |                 |                        |                               |  |                                      |                                       |                                      |  | 4.93m b<br>7. Borel                        | and retractory<br>ogl. No olfacto<br>hole backfilled | with bentonite   | i contamination.<br>contamination.<br>pellets and arisings up                   | overed from grou           |                         |
| Report I          | Notes: For e  | planatio   | n of symbols ar                                     | nd abbi         | reviati                | ons, se                       | e Key Sheet.                             | Sc                                   | <br>cale: 1:25                        |                                      | L  | logged                                     | By: RB   |  | Checked   | By: JW                     |                         |

| A  | EC  | <b>O</b>   |                             | 5th<br>2 C<br>Lee | ECO<br>Floor<br>City Walk<br>eds | M<br>Tel: 0113 391<br>k Fax: 0113 39<br>www.aecom.c                        | 6800<br>1 6899<br>som   | Sheet: 6 of 7  | e No. F-E   | 3H116   |                 |
|--|---|--|-----------------------------|-------------------|----------------------------------|--|---|--|---|---|-----------------|
| Equipment<br>0.00 - 0.21<br>0.21 - 0.60<br>0.60 - 16.50<br>16.50 - 31.00 | t & Methods<br>XCalibre Nep<br>Insulated Har<br>Sonic Drilling<br>Rotary Coring | S:<br>tune Coring Rig<br>Id Tools<br>(Hammer ID: GS08) |                             |                   | Project<br>Project<br>Client:    | Name: Net Zero Teesside Onshore<br>Location: Redcar, North Yorkshire<br>BP | Ground Investigation - F  | Front End Engineering  | Design (FEED)   | Job No:<br>60678042   |                 |
|  |   |  |                             |                   | E: 4569                          | 947.093<br>118.285   | 7.  | 466 AOD  | Date Started:<br>Date Complete  | ed: 07/09/2022  |                 |
| Depth<br>(m)   | In Situ Tesi<br>Sample<br>Ref &<br>Type   | ting<br>Test Type<br>and Result                        | Corine<br>TCR<br>SCR<br>RQD | g Infoi<br>FI     | mation<br>Core<br>Run            | DESCRIPTION  | 1   | Reduced<br>Level<br>(m)  | Legend  | Depth Bac<br>(Thick) Instru<br>(m)  | :kfill/<br>Imer |
| -<br>-<br>-  |   |  |                             | 0<br>CLAY         | 25.00-<br>26.50                  | From 25.00m bgl: Becomes v<br>fossils.                                     | very weak with freque   | ent shell  |   | -   |                 |
| -  |   |  |                             | 3                 |                                  | From 25.28m to 25.30m bgl:<br>From 25.30m bgl: Fracture s                  | Recovered as stiff gr<br>et 1 present: Closelv  | rey clay.<br>spaced.   |   | -   |                 |
| -<br>-<br>-  |   |  | 100<br>95<br>95             | NI                |                                  | horizontal, undulating rough,<br>infilled with soft grey clay.             | partly open to open, o  | clean or   |   | -<br>-<br>-   |                 |
| -<br>- 26.20<br>-  | с   |  |                             | 1                 |                                  |  |   |  |   | -   |                 |
| -<br>-<br>-<br>-   |   |  |                             |                   | 26.50-<br>28.00                  |  |   |  |   | -<br>-<br>-<br>-  |                 |
| -  |   |  |                             | CLAY              | -                                |  |   |  |   | -   |                 |
| -  |   |  | 100<br>51<br>45             | 0                 | -                                | From 27.06m to 27.11m bgl:<br>From 27.23m to 27.84m bgl:                   | Recovered as stiff gr   | rey clay.<br>rev clav  |   | -   |                 |
|  |   |  |                             | CLAY              |                                  | - 10 m 21.20 m to 21.0 m bg.   |   | cy olay.   |   | -<br>   |                 |
|  |   |  |                             | 0<br>NI           | -                                |  |   |  |   | -   |                 |
|  |   |  |                             | 0                 | 28.00-<br>29.50                  | -  |   |  |   |   |                 |
|  |   |  |                             | CLAY              | -                                | From 28.20m to 28.42m bgl:   | Recovered as stiff gr   | ey clay.   |   | -   |                 |
|  |   |  | 100<br>61<br>58             | 2                 |                                  |  |   |  |   |   |                 |
|  | С   |  |                             | NI<br>5           |                                  |  |   |  |   | -   |                 |
|  |   |  |                             | NI                | 29.50-<br>31.00                  |  |   |  |   | -   |                 |
|  |   |  |                             |                   |                                  |  |   |  |   | -   |                 |
|  | ater Strikes  |  | <br>   -                    | lole D            | iamete                           | Progress   | Casing Water 11   | Rema   | arks  | Site area of Teesworks  |                 |
| Depth  |   |  | (mr                         | פ טומ<br>n)       | Hole (                           | m) Date Time Hole Depth (m   | Desting         water         Ref           ) Depth (m) Depth (m) 20         0.6         3.5           Construction         0.6         3.5           Constretin </td <td>dcar. Located in the north of Rk<br/>Concrete core completed to 0.2<br/>Om bgl on hard stratum. Permi<br/>SO/RC borehole advanced via-<br/>ring to 31.00m bgl.<br/>Topography: Level Ground.<br/>Sroundwater strikes not observ<br/>Slag and refractory material en<br/>9m bgl. No offactory evidence<br/>Borehole backfilled with benton</td> <td>Interdiation Zone PR1B.<br/>I'm bgl. Buried Service Ins<br/>ssion granted to progress I<br/>Sonic drilling to 16.50m bg<br/>ed during drilling due to ad<br/>countered in material recov<br/>of contamination.<br/>te pellets and arisings upo</td> <td>spection Pit terminated at<br/>operahole via Sonic drilling,<br/>II, and completed via Rotar<br/>dition of flush water.<br/>vered from ground level to<br/>n completion.</td> <td>ry</td> | dcar. Located in the north of Rk<br>Concrete core completed to 0.2<br>Om bgl on hard stratum. Permi<br>SO/RC borehole advanced via-<br>ring to 31.00m bgl.<br>Topography: Level Ground.<br>Sroundwater strikes not observ<br>Slag and refractory material en<br>9m bgl. No offactory evidence<br>Borehole backfilled with benton | Interdiation Zone PR1B.<br>I'm bgl. Buried Service Ins<br>ssion granted to progress I<br>Sonic drilling to 16.50m bg<br>ed during drilling due to ad<br>countered in material recov<br>of contamination.<br>te pellets and arisings upo | spection Pit terminated at<br>operahole via Sonic drilling,<br>II, and completed via Rotar<br>dition of flush water.<br>vered from ground level to<br>n completion. | ry              |
| Notes: For   | r explanatio  | n of symbols ar  | nd abbr                     | eviati            | <br>ons, se                      | e Key Sheet. Scale: 1:25   | Log   | ged By: RB   | Checked E   | By: JW  |                 |

|             | Δ                           | =/                              | <b>M</b>                               | A          | <b>A</b><br>5th  | ECO<br>Floor               | М                            | т                     | el: 0113 391               | 6800                   |                       |                                  | Bore                              | ehole                                    | No. F-   | BH11   | 6   |
|-------------|-----------------------------|---------------------------------|--|------------|------------------|----------------------------|------------------------------|-----------------------|----------------------------|------------------------|-----------------------|----------------------------------|-----------------------------------|--|--|--|---|
| 4           |                             |                                 |  |            | 2 C              | City Walk<br>eds<br>11 948 | ζ.                           | F                     | ax: 0113 391<br>ww.aecom.c | 6899<br>om             |                       | 2022                             | Sheet: 7                          | 7 of 7                                   |  |  |   |
|             | Equipmen                    | it & Methods                    | 8:                                     |            |                  | Project                    | Name: Net Zero               | Teessid               | le Onshore                 | Ground Inv             | estigation            | n - Fron                         | t End Eng                         | ineering D                               | esign (FEED)                                       | Job No:  |   |
| 0           | .00 - 0.21<br>.21 - 0.60    | XCalibre Nept<br>Insulated Han  | une Coring Rig<br>d Tools              |            |                  | Project                    | Location: Redca              | ar, North             | Yorkshire                  |                        |                       |                                  |                                   |  |  | 6067   | 8042  |
| 0           | .60 - 16.50<br>6.50 - 31.00 | Sonic Drilling<br>Rotary Coring | (Hammer ID: GS08)<br>(Hammer ID: GS08) |            |                  | Client:                    | BP                           |                       |                            | Ground                 |                       |                                  |                                   |  | Data Started                                       | 16/08/202  | )   |
|             |                             |                                 |  |            |                  | E: 4569                    | 947.093                      |                       |                            | Ground                 | Lever(III)            | 7.466                            | AOD                               |  | Date Comple  | ted: 07/09/2   | 2022  |
| $\vdash$    |                             | In Situ Test                    | ing                                    | Corin      | g Info           | mation                     | 18.285                       |                       |                            |                        |                       |                                  |                                   | Reduced                                  |  | Depth  | Backfill/                                     |
|             | Depth<br>(m)                | Sample<br>Ref &                 | Test Type                              | TCR<br>SCR | FI               | Core<br>Run                |                              | DES                   | SCRIPTION                  |                        |                       |                                  |                                   | (m)                                      | Legend   | (Thick)<br>(m)   | Instrument                                    |
|             | ()                          | Туре                            | and Result                             | RQD        |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  | =  |   |
| Ę           |                             |                                 |  | 100        |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| -           |                             |                                 |  | 95<br>89   |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  | -  |   |
| -           |                             |                                 |  |            | 3                |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| _           |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  | -  |   |
| -           |                             |                                 |  |            |                  |                            | From 30.54m<br>closely space | n bgl: Fi<br>d, horiz | racture se<br>zontal, ste  | et 2 prese<br>pped rou | nt: Medi<br>gh, parti | ium to<br>ly opei                | n, clean                          |  |  |  |   |
| Ľ           |                             |                                 |  |            |                  |                            | or infilled with             | soft gr               | ey clay.                   |                        |                       |                                  |                                   |  |  |  |   |
| -           |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   | -23.53                                   |  | 31.00  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              | End                   | of Borob                   | 010 31 00              | m                     |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              | (Thi                  | ckness of                  | basal lay              | rer                   |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       | not pro                    | oven)                  |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| er 202      |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| /embe       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| 29 No       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| Date: 2     |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| 8           |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| /1.3.G      |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| ARY         |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| S 4 C       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| 2T AG       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| IN: N       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| LIDI        |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| GPJ         |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| ZLG         |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| 1.1 N       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| sct: V      |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| Proje       |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
|             |                             |                                 |  | <u> </u>   | <u> </u>         |                            |                              |                       |                            |                        |                       |                                  |                                   |  |  |  |   |
| u<br>l<br>u | W<br>Strike F               | ater Strikes<br>low Remark      | s                                      | Hol        | ⊣ole ⊑<br>le Dia | Depth                      | of Date                      | Progre<br>Fime        | Hole                       | Casing                 | Water                 | 1. Sonic                         | Rotary Core                       | Remar<br>(SO/RC) boref<br>e north of Rem | KS<br>nole located in the Ma<br>ediation Zone PR1R | in Site area of Te   | esworks,                                      |
|             | vepth                       |                                 |  | (mr<br>146 | m)<br>3          | Hole (<br>31.00            | m) 07-09-2022 1              | 14:30                 | Depth (m)<br>31.00         | Depth (m)<br>31.00     | Depth (m              | 1) 2. Conc<br>0.60m b<br>3. SO/P | gl on hard stra                   | pleted to 0.21r<br>atum. Permissi        | n bgl. Buried Service<br>on granted to progres     | Inspection Pit ten<br>s borehole via So<br>bgl. and complete | minated at<br>onic drilling.<br>ed via Rotary |
| KD C        |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       | Coring t<br>4. Topo              | o 31.00m bgl.<br>graphy: Level    | Ground.                                  | during drilling due to                             | addition of fluck  | vater   |
| ANDA        |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       | 6. Slag :<br>4.93m b             | and refractory<br>gl. No olfactor | material encourry evidence of            | untered in material rec<br>contamination.          | covered from gro   | und level to                                  |
| D: ST.      |                             |                                 |  |            |                  |                            |                              |                       |                            |                        |                       | r. Borel                         | ພະ backtilled                     | with pentonite                           | pellets and ansings u                              | poin completion.   |   |
| aport       | N-4 -                       |                                 |  |            |                  |                            |                              | Sr                    | )<br>cale: 1:25            |                        | I                     | Loaaed                           | By: RB                            |  | Checker  | By: JW   |   |
| ž 🗌         | Notes: Fo                   | r explanatio                    | n ot symbols an                        | nd abbr    | reviati          | ons, se                    | e Key Sheet.                 |                       |                            |                        |                       | 9900                             | ., <b>.</b>                       |  | 0.1001.00  | -,: 0.1  |   |

| Λ  |                                 | <b>M</b>  |                                    |  | М   | Tel: (   | 0113 391 6                                 | 800  |   | Bore  | ehole   | No. F-E  | 3H11  | 5  |
|--|---------------------------------|---|------------------------------------|--|---|--|--|--|---|---|---|--|---|--|
|  |                                 |   | 2<br>L                             | City Walk<br>eeds<br>S11 9AR                     | < c   | Fax:   | 0113 391 (<br>.aecom.com                   | 6899<br>n  | AGS<br>REGISTERED USER 2022                                   | Sheet:  | 1 of 7  |  |   |  |
| Equipment  | t & Method<br>XCalibre Nep      | S:<br>tune Coring Rig                                     |                                    | Project  | Name: Net Ze  | ero Teesside C   | Onshore (                                  | Ground Inve  | estigation -  | Front End Eng   | ineering D  | Design (FEED)  | Job No:   | 0040   |
| 0.18 - 0.30  | Insulated Har<br>Sonic Drilling | nd Tools<br>(Hammer ID: GS08)                             |                                    | Project<br>Client:                               | BP  | icar, North Yoi  | rkshire                                    |  |   |   |   |  | 60678   | 8042   |
| 15.00 - 31.50  | Rotary Coring                   | (Hammer ID: GS08)   | -                                  | Co-ord   | inates:   |  |  | Ground L   | evel (m):   |   |   | Date Started:  | 16/08/2022  | !  |
|  | -                               |   |                                    | N: 5254  | 451.755   |  |  |  |   | 7.530 AOD   |   | Date Complete  | d: 01/09/2  | 022  |
| Depth<br>(m)   | In Situ Tes<br>Sample<br>Ref &  | ting<br>Test Type   | Coring Info<br>TCR<br>SCR FI       | Core<br>Run                                      |   | DESCF  | RIPTION                                    |  |   |   | Reduced<br>Level<br>(m)   | Legend   | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrument  |
| -  | <u>Type</u>                     | and Result  | RQD                                |  | MADE GRC  | UND: Grey  | CONC                                       | RETE   |   |   | 7.05  |  | (0.18)  |  |
| -<br>-<br>-<br>-<br>-<br>-<br>-<br>-   |                                 | PID = 0.6ppm  |                                    |  | MADE GRC<br>subrounded<br>medium cob<br>of slag. San<br>(MADE GRC                           | DUND: Brow<br>I fine to coa<br>bble content<br>d is fine to o<br>DUND)                                       | vnish gre<br>rse GR/<br>t. Cobbl<br>coarse | ey sandy<br>AVEL of s<br>es are an                             | angular to<br>lag with lo<br>gular to s                       | o<br>ow to<br>subangular  | . 7.35  |  | _ 0.18<br>-<br>-<br>-<br>-<br>-<br>-  |  |
| -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-  |                                 | PID = 0.3ppm  |                                    |  | From 1.03n  | n to 1.50m l   | bgl: Bec                                   | omes SA  | ND and C  | GRAVEL.   |   |  | -<br>-<br>-<br>-<br>-<br>- (2.82)<br>-  |  |
| -<br>2.00<br>-<br>-<br>-<br>-<br>  |                                 | PID = 0.6ppm<br>PID = 0.7ppm                              |                                    |  |   |  |  |  |   |   |   |  | -<br>-<br>-<br>-<br>-   |  |
| BII Date: 29 November 2022<br>   | BES                             | PID = 1.0ppm<br>SPT(C) N>50<br>25 for 45mm/50<br>for 20mm |                                    |  | From 2.51n<br>NOTE: Prop<br>MADE GRC<br>subrounded<br>high cobble                           | n bgl: Becon<br>posed reme<br>DUND: Black<br>I fine to coa<br>content. Co                                    | mes bla<br>ediation<br>k mottle<br>rse GRA | ck mottle<br>level 4.8r<br>d grey an<br>AVEL of b<br>re angula | d grey.<br>n AOD.<br>d yellow a<br>prick and s<br>ar to subro | angular to<br>slag with<br>ounded of  | 4.53  |  | -<br>-<br>-<br>- 3.00<br>-  |  |
| 3.50<br>3.75   | D                               | PID = 0.0ppm  |                                    |  | släg<br>(MADE GRC   | DUND)  |  | Ū  |   |   |   |  | -<br>-<br>- (1.26)<br>-   |  |
| 97<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12<br>12   | В                               | PID = 0.0ppm  |                                    |  |   |  |  |  |   |   | 3.27  |  | -<br>-<br>-<br>-<br>4.26  |  |
| 9:9:- 4.30<br>- 4.50- 5.20<br>- 4.50- 5.20   | B<br>D<br>B                     | PID = 0.6ppm<br>SPT(C) N=50<br>7,8/<br>10,13,12,15        |                                    |  | MADE GRC<br>Gravel is an<br>brick<br>(MADE GRC<br>Dense local<br>with occasic<br>(TIDAL FLA | DUND: Dark<br>Igular to sub<br>DUND)<br>Iy very dens<br>Daal black o<br>T DEPOSIT                            | brounde<br>se light l<br>rganic s          | gravelly fi<br>d fine to o<br>prown fino<br>pecs and           | ne to coa<br>coarse of<br>e to coars<br>shell fraç            | arse SAND.<br>slag and<br>se SAND<br>gments   | 3.03  |  | _ (0.24)<br>4.50<br>  |  |
| 0<br>  |                                 |   |                                    |  |   |  |  |  |   |   |   | · · · · · · · ·  | -   |  |
| With ID: Strike File Depth Dep | I<br>ater Strikes<br>ow Remark  | l<br>IS   | Hole Di.<br>(mm)<br>300<br>Insp. p | Diamete<br>a Depth<br>Hole (i<br>0.18<br>it 0.30 | I<br>of Date<br>m)<br>16-08-2022<br>25-08-2022  | Progress           Time         Hi           2         14:00         0.           2         10:30         0. | ole (<br>epth (m) I<br>18<br>30            | Casing V<br>Depth (m) [  | Vater 1.<br>Depth (m) 2<br>3<br>C<br>4<br>5<br>6<br>0<br>7.   | Sonic/Rotary Core I<br>tedcar. Located in th<br>Concrete core com<br>.30m bgl on hard str<br>.50/RC borehole ac<br>oring to 31.50m bgl.<br>. Groundwater strike<br>. Slag material encou<br>Ifactory evidence of 6<br>. Borehole backfilled | (SO/RC) borel<br>(SO/RC) borel<br>e east of Rem<br>pleted to 0.18<br>atum. Permiss<br>Vanced via Sc<br>Ground.<br>a not observed<br>initered in mation.<br>with bentonite | ks<br>hole located in the Main<br>ediation Zone PR2B.<br>In byl. Buried Service Ins<br>ion granted to progress t<br>pric drilling to 15.00m bg<br>I during drilling due to ad<br>erial recovered from grou<br>pellets and arisings upo | Site area of Tee<br>pection Pit term<br>oorehole via Sor<br>, and complete<br>dition of flush w<br>and level to 4.50<br>n completion. | asworks,<br>ninated at<br>ici drilling.<br>d via Rotary<br>ater.<br>Im bgl. No |
| Notes: For   | explanatio                      | on of symbols an  | d abbrevia                         | itions, se                                       | e Key Sheet.  | Scale  | : 1:25                                     |  | Lo  | gged By: RB   |   | Checked E  | By: JW  |  |

| Δ                              |                        | <b>NO</b>                       | 1      | A<br>5th        | ECO<br>Floor                   | <b>DM</b><br>Tel: 0113 391 68                                 |   | Bore  | hole  | No. F-E  | 3H11              | 5                           |
|--------------------------------|------------------------|---------------------------------|--------|-----------------|--------------------------------|---|---|---|---|--|-------------------|-----------------------------|
|                                |                        |                                 |        | Lee<br>LS       | aty waik<br>eds<br>11 9AR      | www.aecom.con   | n REGISTERED USER 2022                          | Sheet: 2  | of 7  |  |                   |                             |
| Equipment 8                    |                        | S:<br>tune Coring Rig           |        |                 | Project                        | ct Name: Net Zero Teesside Onshore G                          | Fround Investigation - Fro                      | nt End Engi   | neering D                                       | esign (FEED)   | Job No:           |                             |
| 0.18 - 0.30 lr                 | nsulated Har           | Id Tools                        |        |                 | Project<br>Client <sup>.</sup> | ct Location: Redcar, North Yorkshire                          |   |   |   |  | 6067              | 8042                        |
| 15.00 - 31.50 F                | Rotary Coring          | (Hammer ID: GS08)               |        |                 | Co-ord                         | dinates:  | Ground Level (m):                               |   |   | Date Started:  | 16/08/2022        | 1                           |
|                                |                        |                                 |        |                 | E: 4568<br>N: 5254             | 6870.692<br>5451.755  | 7.53  | 0 AOD   |   | Date Complete  | d: 01/09/2        | 022                         |
| In                             | Situ Tes               | ting                            | Corin  | g Infor         | mation                         |   |   |   | Reduced<br>Level                                | Logond   | Depth<br>(Thick)  | Backfill/<br>Instrument     |
| Depth<br>(m)                   | Ref &                  | Test Type<br>and Result         | SCR    | FI              | Core<br>Run                    |   |   |   | (m)   | Legenu   | `(m) ´            |                             |
| 5.00                           | ËS                     | PID = 0.2ppm                    |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
| 5 25                           |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
| 5.30- 6.00                     | B                      |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  |                   |                             |
| -5.50                          |                        | PID = 0.2ppm                    |        |                 |                                |   |   |   |   | · · · · · · · ·  | _                 |                             |
| -                              |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  |                   |                             |
| -                              |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
| <b>6.00-</b> 6.75<br>6.00      | B<br>SS                | PID = 0.2ppm<br>SPT(S) N=24     |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
|                                |                        | 3,3/<br>4,5,7,8                 |        |                 |                                | From 6.00m bgl: Becomes mot                                   | tled grey.                                      |   |   | · · · · · · · ·  |                   |                             |
| -                              |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
| _                              |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
| -                              |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
| 6.75- 7.50                     | в                      |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  |                   |                             |
| -7.00                          |                        | PID = 0.2ppm                    |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
| 7.15                           | D                      |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
| -                              |                        |                                 |        |                 |                                | From 7.10m to 7.21m bgl: Graves subangular to subrounded fine | velly band. Gravel is<br>to coarse of quartzite | and   |   | · · · · · · · ·  | -                 |                             |
| -                              |                        |                                 |        |                 |                                | mudstone.   |   |   |   | · · · · · · · ·  | -                 |                             |
| <b>7.50-</b> 8.20              | B<br>SS                | SPT(S) N=43<br>1,3/             |        |                 |                                |   |   |   |   |  |                   |                             |
| 1<br>1                         |                        | 5,9,13,10                       |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  |                   |                             |
| 00.8 <del>-</del> is           |                        | PID = 0.0ppm                    |        |                 |                                |   |   |   |   | · · · · · · · · · ·  | _                 |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · · ·  | -                 |                             |
| 8.25<br>0 8.30-9.00            | DB                     |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | (7.56)            |                             |
| ×-                             |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
| BRAR                           |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  | _                 |                             |
| 40<br>                         |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
| AGS (                          |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · ·  | -                 |                             |
| ⊢ –<br>Z. – <b>9.00</b> - 9.70 | В                      | PID = 0.0ppm                    |        |                 |                                |   |   |   |   | · · · · · · · · ·  |                   |                             |
| ibrary                         |                        | SPT(S) N>50<br>4,6/14,16,20 for |        |                 |                                |   |   |   |   | · · · · · · · · · · ·  | -                 |                             |
|                                |                        | 70mm                            |        |                 |                                |   |   |   |   | · · · · · · · ·  |                   |                             |
| 0.10                           |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  | -                 |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   |  |                   |                             |
| <u>월</u> 9.75<br>일 9.80- 10.50 | D<br>B                 |                                 |        |                 |                                |   |   |   |   | · · · · · · · ·  |                   |                             |
|                                |                        |                                 |        |                 |                                |   |   |   |   | · · · · · · · · · · · ·  | -                 |                             |
| Wate<br>Strike Flow            | er Strikes<br>v Remark | (S                              | Hol    | lole D<br>e Dia | iamete<br>Depth                | ter Progress<br>th of Date Time Hole C                        | Casing Water <sup>1. Soni</sup>                 | c/Rotary Core (   | Remar<br>SO/RC) bore                            | ks<br>nole located in the Main   | Site area of Tee  | esworks,                    |
| Depth                          |                        |                                 | (mr    | n)              | Hole (                         | e (m) Depth (m) D   | Depth (m) Depth (m) Redcar<br>2. Cond<br>0.30m  | r. Located in the<br>crete core comp<br>bgl on hard strat | east of Reme<br>leted to 0.18r<br>tum. Permissi | ediation Zone PR2B.<br>n bgl. Buried Service Ins<br>on granted to progress I | pection Pit tern  | ninated at<br>nic drilling. |
|                                |                        |                                 |        |                 |                                |   | 3. SON<br>Coring<br>4. Topo                     | to 31.50m bgl.<br>ography: Level C                        | Ground.   | during drilling due to ==  | dition of fluch   | a via i vulali y            |
| AND                            |                        |                                 |        |                 |                                |   | 5. Grou<br>6. Slag<br>olfactor<br>7. Borr       | material encour   | ntered in mate<br>ontamination.                 | erial recovered from gro   | und level to 4.50 | )m bgl. No                  |
|                                |                        |                                 |        |                 |                                |   | /. bore   |   |   | Pointe and anoings upo   |                   |                             |
| Notes: For e                   | xplanatic              | n of symbols an                 | d abbr | eviati          | <br>ons, se                    | see Key Sheet. Scale: 1:25                                    |   | By: RB  |   | Checked E  | By: JW            |                             |

| AE  | C  | <b>ON</b>   |                                 | 5th<br>2 C<br>Lee<br>LS1 | Floor<br>ity Walk<br>ds                | Λ  | Te<br>Fa<br>W  | el: 0113 391<br>ax: 0113 391<br>ww.aecom.c                             | 6800<br>I 6899<br>om                                     |                                      | Bore<br>Sheet:  | ehole   | No. F-E  | 3H11  | 5  |
|---|--|---|---------------------------------|--------------------------|--|--|--|--|--|--------------------------------------|---|---|--|---|--|
| Equipment & N<br>0.00 - 0.18 XCa<br>0.18 - 0.30 Insu<br>0.30 - 15.00 Son  | Aethods<br>Ilibre Nept<br>Ilated Han<br>ic Drilling  | S:<br>tune Coring Rig<br>nd Tools<br>(Hammer ID: GS08)  |                                 | F<br>F                   | Project N<br>Project L<br>Client: E    | Name: Net Zer<br>Location: Redo<br>3P  | o Teessid<br>car, North  | e Onshore<br>Yorkshire   | Ground In  | vestigation                          | - Front End Eng   | gineering D   | Design (FEED)  | Job No:<br>6067   | 8042   |
| 15.00 - 31.50 Rola  | ary Coring   | (Hammer ID: GS08)   |                                 | E                        | Co-ordin<br>E: 45687                   | ates:<br>70.692  |  |  | Ground   | Level (m):                           | 7.530 AOD   |   | Date Started:<br>Date Complete   | 16/08/2022<br>ed: 01/09/2   | 2  |
| In S  | itu Test   | ting<br>Test Type   | Coring                          | l Infor                  | N: 52545<br>mation<br>Core             | 51.755   | DES  | CRIPTION   | 1  |                                      |   | Reduced<br>Level<br>(m)   | Legend   | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrument  |
| Depth<br>(m)<br>10.00<br>10.00<br>10.50<br>10.50<br>10.50<br>10.50<br>10.50<br>10.50<br>10.50<br>11.00<br>11.00<br>11.00<br>11.00<br>11.00<br>11.00<br>11.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12.00<br>12 | B<br>B<br>SS<br>D<br>D<br>B<br>B<br>B<br>UTT100<br>B<br>B<br>B<br>D<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B | Test Type         and Result         PID = 0.0ppm         SPT(S) N>50         5,5/9,14,27 for         60mm         PID = 0.0ppm         SPT(S) N=0         0,0/         0,0/         0,0/         0,0/         0,0/         PID = 0.0ppm         PID = 0.0ppm |                                 | FI                       | Core<br>Run<br>f                       | From 10.500<br>Very soft gre<br>fine to coars<br>( <b>TIDAL FLA</b> )<br>From 13.300<br>From 14.370<br>From 14.530 | The providence of the second s | OOm bgl: .<br>DOm bgl: .<br>wn mottle<br>siTS)<br>50m bgl:<br>ecomes f | 30% reco<br>30% reco<br>ed black s<br>sent.<br>Band of v | overy.<br>sandy CL                   | AY. Sand is   | Level (m)   |  | (Thick)<br>(m)<br>  | Backlin/<br>Instrument   |
|   |  |   |                                 |                          |  |  |  |  |  |                                      |   | _7 /7   |  | 15.00   |  |
| Water<br>Water<br>Water<br>UPUDED<br>Depth<br>UDepth<br>UDepth<br>UDepth<br>UDepth<br>UDepth<br>UDepth<br>UDepth<br>UDepth<br>UDepth<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UDEPT<br>UD       | Strikes<br>Remark  | is<br>S   | ⊢ – – – –<br>Hole<br>(mn<br>194 | lole D<br>e Dia<br>n)    | iameter<br>Depth o<br>Hole (m<br>15.00 | of Date<br>)<br>25-08-2022<br>26-08-2022   | Progree<br>Time<br>17:15<br>09:30  | Hole<br>Depth (m)<br>12.00<br>15.00                                    | Casing<br>) Depth (m)<br>12.00<br>15.00                  | Water<br>) Depth (m)<br>2.60<br>5.90 | Sonic/Rotary Core<br>Redcar. Located in th<br>2. Concrete core com<br>0.30m bgl on hard str.<br>3. SO/RC borehole ar<br>Coring to 31.50m bgl.<br>4. Topography: Level<br>5. Groundwater strike<br>6. Slag material encou<br>offactory evidence of<br>7. Borehole backfilled | (SO/RC) bore<br>e east of Rem<br>pleted to 0.18<br>atum. Permiss<br>dvanced via So<br>Ground.<br>s not observec<br>untered in mat<br>contamination.<br>with bentonite | ks<br>hole located in the Main<br>ediation Zone PR28.<br>In byl. Buried Service In<br>ion granted to progress<br>onic drilling to 15.00m bg<br>I during drilling due to ac<br>erial recovered from gro<br>pellets and arisings upc | 15.00     Site area of Tee spection Pit term borehole via So  I, and complete Idition of flush w und level to 4.50 on completion. | asworks,<br>ninated at<br>nic drilling,<br>wd via Rotary<br>vater.<br>0m bgl. No |
| Notes: For exp  | olanatio   | on of symbols and   | d abbr                          | eviatio                  | ons, see                               | Key Sheet.   | Sc   | <br>ale: 1:25  |  | L                                    | ogged By: RB  |   | Checked I  | By: JW  |  |

| AE  | C   | <b>O</b>   |                             | 5th<br>2 C                       | Floor<br>Floor<br>ty Walk                                     | M   | T<br>F                           | ēl: 0113 391<br>āx: 0113 391<br>ww.aecom.c | 6800<br>6899<br>om  | AGS                                 | Bo  | prehole   | No. F-I  | 3H11  | 5   |
|---|---|--|-----------------------------|----------------------------------|---|---|----------------------------------|--|---|-------------------------------------|---|---|--|---|---|
| Equipment &<br>0.00 - 0.18 XC<br>0.18 - 0.30 Ins<br>0.30 - 15.00 So<br>15.00 - 34.50 Bo | Vethod:<br>alibre Nep<br>ulated Har<br>nic Drilling | S:<br>tune Coring Rig<br>nd Tools<br>(Hammer ID: GS08) |                             |                                  | 11 9AR<br>Project<br>Project<br>Client:                       | Name: Net Zer<br>Location: Redo<br>BP   | o Teessid<br>ar, North           | de Onshore<br>Yorkshire                    | Ground In   | REGISTERED USER 20<br>Vestigation   | - Front End   | :t: 4 of 7<br>Engineering [   | Design (FEED)  | Job No:<br>6067   | 8042  |
| 15.00 - 31.50 Ro  | ary Coring  | (Hammer ID: GS08)                                      |                             |                                  | Co-ordi<br>E: 4568<br>N: 5254                                 | nates:<br>370.692<br>151.755  |                                  |  | Ground  | Level (m):                          | 7.530 AC  | D   | Date Started:<br>Date Complete   | 16/08/2022<br>ed: 01/09/2   | 022   |
| In S<br>Depth<br>(m)  | Situ Tes<br>Sample<br>Ref &                         | ting<br>Test Type<br>and Result                        | Coring<br>TCR<br>SCR<br>ROD | g Infor<br>FI                    | mation<br>Core<br>Run   |   | DES                              | SCRIPTION                                  | l   |                                     |   | Reduced<br>Level<br>(m)   | Legend   | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrumen                                  |
|   | C   | and Result<br>PID = 0.0ppm                             | 86<br>0<br>0                | CLAY                             | 15.00-<br>16.50<br>16.50<br>18.00-<br>18.00<br>19.50<br>21.00 | Firm reddish<br>Gravel is sub<br>sandstone au<br>(TILL: DEVE<br>Pressureme<br>pocket drilled<br>From 18.77r | ter test<br>d using <sup>-</sup> | (HPD) co<br>T2-101 cc<br>50m bgl:          | ey slightl<br>led fine t<br>quartzite<br>mpleted a<br>re barrel | y gravelly<br>o medium<br>at 16.00n | y CLAY.<br>n of   |   |  |   |   |
| Strike Flow<br>Depth  | Strikes<br>Remark                                   | i<br>S   | Hol<br>(mn                  | <del>lole D</del><br>e Dia<br>n) | iamete<br>Depth<br>Hole (r                                    | r<br>of Date<br>n)  | Progre<br>Time                   | ess<br>Hole<br>Depth (m)                   | Casing<br>Depth (m)   | Water<br>Depth (m)                  | 1. Sonic/Rotary<br>Redcar. Located<br>2. Concrete core<br>0.30m bgl on ha<br>3. SO/RC boreh<br>Coring to 31.50r           | Rema<br>Core (SO/RC) bore<br>in the east of Rem<br>completed to 0.16<br>rd stratum. Permiss<br>ole advanced via S<br>ole advanced via S<br>o bgl. | rks<br>hole located in the Main<br>rediation Zone PR2B.<br>Im bgl. Buried Service In<br>sion granted to progress<br>onic drilling to 15.00m bg | Site area of Tee<br>spection Pit term<br>borehole via Soi<br>gl, and complete | esworks,<br>ninated at<br>nic drilling.<br>d via Rotary |
|   |   |  |                             |                                  |   |   |                                  |  |   |                                     | <ol> <li>Topography: L</li> <li>Groundwater a</li> <li>Slag material olfactory evidence</li> <li>Borehole back</li> </ol> | evel Ground.<br>strikes not observe<br>encountered in ma<br>e of contamination<br>filled with bentonite   | d during drilling due to ac<br>relial recovered from gro<br>e pellets and arisings upo   | Idition of flush w<br>und level to 4.50<br>on completion.                     | ater.<br>Dm bgl. No                                     |
| Notes: For ex   | planatio  | on of symbols an                                       | nd abbr                     | eviati                           | ons, se   | e Key Sheet.  | Sc                               | cale: 1:25                                 | I   | '<br>                               | Logged By: F  | RB  | Checked  | By: JW  |   |

| ΛΞ                                 |                            | 5                            | A            | A<br>5th         | ECO                        | M   | 6800  | Bore   | ehole  | No. F-E  | 3H11   | 5                             |
|------------------------------------|----------------------------|------------------------------|--------------|------------------|----------------------------|---|---|--|--|--|--|-------------------------------|
|                                    |                            |                              |              | 2 C<br>Lee<br>LS | tity Walk<br>eds<br>11 9AR | Fax: 0113 391                                       | 6899<br>om<br>REGISTERED USER 2022                | Sheet:   | 5 of 7   |  |  |                               |
| Equipment & 0.00 - 0.18 X0         | Methods<br>alibre Nept     | :<br>une Coring Rig          |              |                  | Project<br>Project         | Name: Net Zero Teesside Onshore                     | Ground Investigation - Fro                        | ont End Eng  | ineering D   | Design (FEED)  | Job No:  | 8042                          |
| 0.18 - 0.30 In:<br>0.30 - 15.00 Sc | ulated Han<br>nic Drilling | d Tools<br>(Hammer ID: GS08) |              |                  | Client:                    | BP  |   |  |  |  | 00070  | 5042                          |
| 15.00 - 31.50 Ro                   | tary Coring                | (Hammer ID: GS08)            |              |                  | Co-ordi<br>E: 4568         | inates:<br>870.692                                  | Ground Level (m):<br>7.53                         | 30 AOD   |  | Date Started:<br>Date Complete   | 16/08/2022<br>d: 01/09/2                               | 022                           |
| Ins                                | Situ Test                  | ing                          | Coring       | g Infor          | N: 5254<br>mation          |   |   |  | Reduced<br>Level   |  | Depth<br>(Thick)                                       | Backfill/                     |
| Depth<br>(m)                       | Sample<br>Ref &<br>Type    | Test Type<br>and Result      | SCR<br>RQD   | FI               | Core<br>Run                | DESCRIPTION   |   |  | (m)  | Legend   | (m)  |                               |
| -                                  |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              | 95<br>0<br>0 |                  |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
| 20.77-21.00                        | С                          |                              |              |                  |                            |   |   |  |  |  |  |                               |
| -                                  |                            |                              |              |                  | 01.00                      |   |   |  |  |  | -  |                               |
| -                                  |                            |                              |              |                  | 21.00-<br>22.50            | Venuweak locally weak thinly                        | laminated bluich grov                             |  | -13.63   |  | 21.16  |                               |
| -                                  |                            |                              |              |                  |                            | MUDSTONE locally recovered<br>(REDCAR MUDSTONE FORM | as gravel and clay                                |  |  |  | -  |                               |
| -<br>21.50                         | ES                         |                              |              |                  |                            |   |   |  |  |  | _  |                               |
| -                                  |                            |                              | 100          |                  |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              | 0            | NI               |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
| -                                  |                            |                              |              |                  |                            | At 22.26m bgl: White calcare                        | ous deposits.                                     |  |  |  | -  |                               |
|                                    |                            |                              |              | 0                | 22.50-                     |   |   |  |  |  | _  |                               |
|                                    |                            |                              |              |                  | 24.00                      | Francisco O O Track al La comissión di              | t. 00°  |  |  |  | -  |                               |
|                                    |                            |                              |              | NI               |                            | From 22.67m bgi: Lamination                         | s at ~20°.  |  |  |  | -  |                               |
|                                    |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
| =<br>23.25                         | с                          |                              | 60<br>11     |                  |                            |   |   |  |  |  | -  |                               |
| 1 1.3                              |                            |                              | 0            | 0                |                            |   |   |  |  |  | -  |                               |
|                                    |                            |                              |              |                  |                            | Pressuremeter test (HPD) co                         | mpleted at 23.50m bgl                             | l. Test  |  |  | -  |                               |
|                                    |                            |                              |              | NI               |                            | pocket drilled using T2-101 cc                      | ore barrel.                                       |  |  |  | -  |                               |
|                                    |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
|                                    |                            |                              |              | 0                | 24.00-<br>25.50            |   |   |  |  |  | -  |                               |
|                                    |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
|                                    |                            |                              |              |                  |                            |   |   |  |  |  | -  |                               |
|                                    |                            |                              | 100          | NI               |                            |   |   |  |  |  | -  |                               |
|                                    |                            |                              | 21<br>15     |                  |                            |   |   |  |  |  |  |                               |
|                                    | Strikos                    |                              |              |                  | liamoto                    | ar Drogross   | I   |  | Remor  | ks   |  |                               |
| Strike Flow                        | Remark                     | S                            | Hol<br>(mr   | e Dia<br>n)      | Depth<br>Hole (I           | of Date Time Hole<br>m) Depth (m)                   | Casing Water 1. Sor<br>Depth (m) Depth (m) 2. Cor | nic/Rotary Core<br>ar. Located in the<br>ncrete core com                     | (SO/RC) bore<br>e east of Rem<br>pleted to 0.18                        | hole located in the Main<br>ediation Zone PR2B.<br>m bgl. Buried Service Ins         | Site area of Tee<br>pection Pit term                   | esworks,<br>ninated at        |
|                                    |                            |                              |              |                  |                            | 30-08-2022 15:30 24.00                              | 24.00 0.30m<br>3. SO<br>Coring<br>4. Tot          | h bgl on hard stra<br>/RC borehole ad<br>g to 31.50m bgl.<br>bography: Level | atum. Permiss<br>Ivanced via So<br>Ground.                             | ion granted to progress to<br>pnic drilling to 15.00m bg                             | oorehole via Sor<br>I, and complete                    | nic drilling.<br>d via Rotary |
|                                    |                            |                              |              |                  |                            |   | 5. Gro<br>6. Sla<br>olfacto<br>7. Bor             | g material encou<br>ory evidence of or<br>rehole backfilled                  | s not observed<br>untered in mati-<br>contamination.<br>with bentonite | I during drilling due to ad<br>erial recovered from grou<br>pellets and arisings upo | dition of flush w<br>und level to 4.50<br>n completion | ater.<br>)m bgl. No           |
|                                    |                            |                              |              |                  |                            |   |   |  | -  | 5 +-   |  |                               |
| Notes: For ex                      | planatio                   | n of symbols an              | d abbr       | eviati           | ons, se                    | e Key Sheet. Scale: 1:25                            | Logge   | d By: RB   |  | Checked E  | By: JW   |                               |

|             | ΔΞ                                | 1                      | <b>M</b>                      | <b>A</b>        | A<br>5th         | ECOI<br>Floor              | М                | Te                   | el: 0113 391                | 6800                   |                   |                           | Bore   | ehole  | No  | . F-E  | 3H11                                   | 5                             |
|-------------|-----------------------------------|------------------------|-------------------------------|-----------------|------------------|----------------------------|------------------|----------------------|-----------------------------|------------------------|-------------------|---------------------------|--|--|---|--|--|-------------------------------|
|             |                                   |                        |                               |                 | 2 C<br>Lee<br>LS | City Walk<br>eds<br>11 9AR |                  | Fa                   | ax: 0113 391<br>ww.aecom.co | 6899<br>m              | REGISTERED USER   | 2022                      | Sheet: 6   | 6 of 7   |   |  |  |                               |
|             | Equipment &                       | Method:<br>Calibre Nep | S:<br>tune Coring Rig         |                 |                  | Project                    | Name: Net Zerc   | ) Teessid            | e Onshore                   | Ground In              | vestigatio        | n - Fro                   | ont End Eng  | ineering D   | )esign (                                  | FEED)  | Job No:                                | 2040                          |
|             | 0.18 - 0.30 In<br>0.30 - 15.00 Se | sulated Har            | nd Tools<br>(Hammer ID: GS08) |                 |                  | Project<br>Client:         | Location: Redca  | ar, North            | YORKSNIRE                   |                        |                   |                           |  |  |   |  | 60678                                  | 3042                          |
|             | 15.00 - 31.50 R                   | otary Coring           | (Hammer ID: GS08)             |                 |                  | Co-ordi<br>E: 4568         | nates:<br>70.692 |                      |                             | Ground                 | Level (m)         | ):                        |  |  | Date                                      | Started: 1                                     | 6/08/2022                              |                               |
|             | In                                | Situ Test              | ting                          | Corin           |                  | N: 5254                    | 51.755           |                      |                             |                        |                   | 7.00                      |  | Reduced  | Date                                      | Complete                                       | d: 01/09/2                             | 022<br>Backfill/              |
|             | Depth                             | Sample                 | Test Type                     | TCR             | FI               | Core                       |                  | DES                  | CRIPTION                    |                        |                   |                           |  | Level<br>(m)                                       | L   | egend  | (Thick)<br>(m)                         | Instrument                    |
|             | (m)                               | Туре                   | and Result                    | RQD             |                  | Run                        |                  |                      |                             |                        |                   |                           |  |  |   |  |  |                               |
|             | -                                 |                        |                               |                 | 0                |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  | 25.50-<br>27.00            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 | NI               |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               | 100<br>0        |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               | 0               |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -(10.34)                               |                               |
|             | _                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | _                                      |                               |
| ļ           | 26.63                             | С                      |                               |                 |                  |                            | Pressuremet      | er test (<br>usina T | (HPD) cor<br>[2-101 co      | npleted a<br>re barrel | at 26.50          | m bgl                     | . Test   |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  | 5                    |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  | 27.00-<br>28.50            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               | 100<br>100      |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               | 91              |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| ale: 22     | _                                 |                        |                               |                 | 2                |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| 5.5         | _                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| ARY -       | _                                 |                        |                               |                 |                  | 28.50-                     |                  |                      |                             |                        |                   |                           |  |  |   |  | _                                      |                               |
|             | -                                 |                        |                               |                 |                  | 30.00                      |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| +<br>0<br>0 | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| -IDIALY.    | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               | 100<br>52<br>52 | A.I.             |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| 5           | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | -                                 |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | - 20.77                           |                        |                               |                 | 0                |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
| би<br>П     | _ 23.11                           |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   |                           |  |  |   |  | -                                      |                               |
|             | Wate                              | r Strikes              |                               |                 | <br>Hole D       | )iamete                    | r                | Progre               | ess                         |                        |                   |                           |  | Remar  | ks  |  |  |                               |
|             | Strike Flow<br>Depth              | Remark                 | (S                            | Hol<br>(mr      | le Dia<br>n)     | Depth<br>Hole (r           | of Date<br>n)    | Time                 | Hole<br>Depth (m)           | Casing<br>Depth (m)    | Water<br>Depth (m | 1. Sor<br>Redca<br>2. Cor | nic/Rotary Core<br>ar. Located in the<br>acrete core com | (SO/RC) bore<br>e east of Reme<br>pleted to 0.18r  | hole locate<br>ediation Zo<br>m bgl. Buri | d in the Main S<br>one PR2B.<br>ed Service Ins | Site area of Tee                       | sworks,<br>inated at          |
|             |                                   |                        |                               | 146             | 6                | 30.00                      | 31-08-2022       | 17:30                | 30.00                       | 30.00                  |                   | 0.30m<br>3. SO/<br>Coring | RC borehole ac<br>to 31.50m bgl.                         | atum. Permissi<br>Ivanced via Sc<br>Ground         | ion granted<br>onic drilling              | to progress b<br>to 15.00m bgl                 | orehole via Sor<br>, and complete      | iic drilling.<br>d via Rotary |
| NUAR        |                                   |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   | 5. Gro<br>6. Slag         | g material encou<br>ory evidence of a                    | s not observed<br>intered in mate<br>contamination | l during dri<br>erial recove              | lling due to add<br>ered from grou             | lition of flush want and level to 4.50 | ater.<br>m bgl. No            |
| AIC O       |                                   |                        |                               |                 |                  |                            |                  |                      |                             |                        |                   | 7. Bor                    | ehole backfilled   | with bentonite                                     | pellets an                                | d arisings upor                                | n completion.                          |                               |
| eport II    | Notes: For a                      | nlanatia               | n of symbols or               | nd abb          | 'eviati          |                            | e Key Sheat      | Sc                   | ale: 1:25                   |                        | <br>              | Logge                     | d By: RB   |  |   | Checked B                                      | y: JW                                  |                               |
| ٢L          | Notes. FULE                       | pianau                 | n or symbols al               | ເລັດນນ          | Juai             | 5113, 30                   | o noy oneer.     |                      |                             |                        |                   |                           |  |  |   |  |  |                               |

|            | A                             | EC                              | <b>ON</b>                              |          | 5th<br>2 C      | Floor<br>Sity Walk | M              | T<br>F        | Fel: 0113 391<br>Fax: 0113 391 | 6800<br>6899 |                 |                                  | Bore  | ehole  | No.   | F-BH1  | 15                                 |
|------------|-------------------------------|---------------------------------|--|----------|-----------------|--------------------|----------------|---------------|--------------------------------|--------------|-----------------|----------------------------------|---|--|---|--|------------------------------------|
|            |                               |                                 |  | _        | Lee             | eds<br>11 9AR      | N. N. ( 7      | v<br>         | www.aecom.c                    | om           | REGISTERED USER | 2022                             | Sheet:  | 7 of 7   |   |  |                                    |
|            | Equipmer<br>0.00 - 0.18       | nt & Method:<br>XCalibre Nep    | S:<br>tune Corina Ria                  |          |                 | Project            | Name: Net Zer  | o Teessio     | de Onshore                     | Ground Inv   | vestigatio      | on - Fron                        | it End Eng  | ineering D   | esign (FEE  | ED) Job N  | No:                                |
|            | 0.18 - 0.30                   | Insulated Har                   | nd Tools                               |          |                 | Project            | Location: Redo | ar, North     | Yorkshire                      |              |                 |                                  |   |  |   | 60   | 678042                             |
|            | 0.30 - 15.00<br>15.00 - 31.50 | Sonic Drilling<br>Rotary Coring | (Hammer ID: GS08)<br>(Hammer ID: GS08) |          | H               |                    | BP             |               |                                | Ground       | l evel (m'      | ).                               |   |  | Date Sta  | arted: 16/08/2   | 192                                |
|            |                               |                                 |  |          |                 | E: 4568            | 70.692         |               |                                | Cround       | Lovor(iii)      | ,.<br>7.530                      | ) AOD   |  | Date Co   | mpleted: 01/0  | 9/2022                             |
| -          |                               | In Situ Tes                     | ting                                   | Corin    | g Infor         | N: 5254<br>mation  | 51.755         |               |                                |              |                 |                                  |   | Reduced  |   | Depth  | Backfill/                          |
|            | Depth                         | Sample                          | Test Type                              | TCR      | FI              | Core               |                | DES           | SCRIPTION                      | I            |                 |                                  |   | Level<br>(m)   | Lege  | nd (Thick  | ) Instrumen                        |
|            | (m)                           | Туре                            | and Result                             | RQD      | NI              | Run                |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| +          |                               |                                 |  |          | INI             | 30.00-<br>31.50    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| ł          |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   | _  |                                    |
|            | -                             |                                 |  |          | 0               |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            | -                             |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   | _  |                                    |
| -          |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| +          |                               |                                 |  | 100<br>5 |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| F          |                               |                                 |  | 0        |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            | _                             |                                 |  |          | NI              |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| +          |                               |                                 |  |          |                 |                    | Pressureme     | ter test      | (HPD) co                       | mpleted a    | at 31.00        | m bal.                           | Test  |  |   |  |                                    |
| +          |                               |                                 |  |          |                 |                    | pocket drilled | dusing        | T2-101 co                      | ore barrel.  |                 |                                  |   |  |   |  |                                    |
| t          |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            | _                             |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   | -23.97   |   | 31.50  |                                    |
|            |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                | End<br>(Thi   | l of Boreh                     | ole 31.50    | m               |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                | (111          | not pro                        | oven)        |                 |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
|            |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| 2022       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| mber       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| Novel      |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| : 291      |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| Date       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| GLB        |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| V1.3.      |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| ARY        |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| LIBR       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| 340        |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| L AGS      |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| ZN :       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| ibrary     |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| <u>זור</u> |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| GI.GF      |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| NZT        |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| 11.1       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| ect: V     |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| Proj       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| 1901       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| OLE L      | W<br>Strike   F               | ater Strikes                    | s<br>(S                                | Hol      | lole D<br>e Dia | iamete<br>Depth    | r<br>of Date   | Progr<br>Time | ess<br>Hole                    | Casing       | Water           | 1. Sonic                         | /Rotary Core  | Remark<br>(SO/RC) boreh                              | KS<br>Iole located in t                               | the Main Site area o                                     | f Teesworks,                       |
| REH        | Depth                         |                                 |  | (mr      | n)              | Hole (1            | n)             | 00.15         | Depth (m)                      | Depth (m)    | Depth (n        | n) Redcar.<br>2. Conc<br>0.30m b | . ∟ocated in the<br>rete core com<br>ogl on hard stra | e east of Reme<br>pleted to 0.18n<br>atum. Permissio | eulation ∠one P<br>n bgl. Buried S<br>on granted to p | 'r≺∠b.<br>ervice Inspection Pit<br>vrogress borehole via | terminated at<br>a Sonic drilling. |
| 00         |                               |                                 |  |          |                 | 01.00              | 101-03-2022    | 09.10         | 01.00                          | 51.50        |                 | 3. SO/R<br>Coring t              | C borehole ac<br>to 31.50m bgl.<br>graphy: Level      | lvanced via So<br>Ground                             | nic drilling to 15                                    | 5.00m bgl, and com                                       | pleted via Rotary                  |
| IDAR       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 | 5. Grou<br>6. Slag               | ndwater strikes<br>material encou                     | s not observed<br>intered in mate                    | during drilling o<br>rial recovered                   | due to addition of flu<br>from ground level to           | sh water.<br>4.50m bgl. No         |
| STAN       |                               |                                 |  |          |                 |                    |                |               |                                |              |                 | 7. Borel                         | y evidence of o<br>hole backfilled                    | ontamination.<br>with bentonite                      | pellets and aris                                      | sings upon completion                                    | on.                                |
| Ë          |                               |                                 |  |          |                 |                    |                |               |                                |              |                 |                                  |   |  |   |  |                                    |
| Repo       | Notes: Fo                     | or explanatio                   | n of symbols an                        | d abbr   | eviati          | ons, se            | e Key Sheet.   | S             | cale: 1:25                     |              |                 | Logged                           | By: RB  |  | Che   | ecked By: JW   |                                    |

|   | EC   | <b>ON</b>   |                                | AECO<br>5th Floor<br>2 City Wall<br>Leeds            | <b>M</b><br>ĸ  | Tel: 0113 391<br>Fax: 0113 391<br>www.aecom.co   | 6800<br>6899<br>om AGS                                       | Bore  | ehole  | No. F-E  | 3H114   | 4  |
|---|--|---|--------------------------------|--|--|--|--|---|--|--|---|--|
| Equipment &<br>0.00 - 0.20 0<br>0.20 - 0.55 1<br>0.55 - 15.00 \$  | Calibre Nep<br>Scalibre Nep<br>Insulated Har<br>Sonic Drilling | S:<br>tune Coring Rig<br>nd Tools<br>(Hammer ID: GS002)       |                                | LS11 9AR<br>Project<br>Project<br>Client:            | t Name: Net Ze<br>t Location: Red<br>BP                            | ero Teesside Onshore<br>car, North Yorkshire   | REGISTERED USER 2<br>Ground Investigation                    | n - Front End Eng   | jineering D  | Design (FEED)  | Job No:<br>6067   | 8042   |
| 15.00 - 29.00 F   | totary Coring  | (Hammer ID: GS002)  |                                | Co-ord<br>E: 456                                     | inates:<br>803.946   |  | Ground Level (m):  | :<br>7.471 AOD  |  | Date Started:  | 16/09/2022<br>d· 21/09/2  | 022  |
| In  | Situ Tes   | ting  | Coring Ir                      | N: 525   | 469.587  |  |  |   | Reduced  |  | Depth   | Backfill/  |
| Depth<br>(m)  | Sample<br>Ref &  | Test Type   | TCR<br>SCR F                   | -I Core<br>Run                                       |  | DESCRIPTION  |  |   | (m)  | Legend   | (m)   | Instrument   |
|   | Гуре   |   | RQU                            |  | MADE GRC<br>Recovered a<br>fine to medi<br>(MADE GRC               | DUND: Grey CONC<br>as subrounded col<br>um sand<br>DUND)   | RETE. From 0.20<br>obles of concrete                         | 0m bgl:<br>and some   |  |  | -<br>_ (0.55)<br>-  |  |
| 0.55- 0.60<br>0.60- 1.20<br>-<br>- 0.80<br>-  | ES<br>ES   | PID = 0.5ppm  |                                |  | MADE GRC<br>coarse SAN<br>subangular<br>coarse of sla<br>(MADE GRC | DUND: Dark brown<br>ID with high cobble<br>of slag. Gravel is a<br>ag and brick<br>DUND)                                     | and grey very gra<br>content. Cobble<br>angular to subrou    | avelly fine to<br>s are<br>nded fine to   | 6.92   |  | - 0.55<br>-<br>-<br>-   |  |
| - 1.20- 1.50<br>-<br>-  | D  | טיי = 0.7ppm  |                                |  |  |  |  |   |  |  | -<br>-<br>-<br>-  |  |
| - <b>1.50-</b> 2.20<br>-<br>-<br>- 1.80   | ES   | PID = 1.5ppm<br>SPT(C) N<50<br>22,3 for<br>4mm/50 for<br>48mm |                                |  |  |  |  |   |  |  | (1.00)<br>-<br>-  |  |
| -<br>2.00   |  | PID = 1.8ppm  |                                |  |  |  |  |   |  |  |   |  |
| - 2.20- 2.43  | D  |   |                                |  |  |  |  |   |  |  |   |  |
| 2.43- 2.90  | В  | PID = 1.9ppm  |                                |  | MADE GRC<br>medium SA<br>subangular                                | DUND: Brown and<br>ND with medium c<br>of slag. Gravel is s  | light brown grave<br>obble content. Co<br>subrounded fine to | lly fine to<br>obbles are<br>o medium of  | 5.04   |  | - 2.43<br>  |  |
| - 2.80<br>- 2.90- 3.00<br>- <b>3.00</b><br>- <b>3.00</b><br>- <b>3.00</b><br>- <b>3.00</b><br>- <b>3.00</b><br>- <b>3.00</b><br>- <b>3.00</b> | ES<br>D<br>B<br>SS   | PID = 1.2ppm<br>SPT(S) N=18<br>2,4/<br>4,5,5,4                |                                |  | (MADE GRC  | posed remediation  | level 4.8m AOD.  |   |  |  | -   |  |
|   | D<br>B<br>ES   | PID = 2.5ppm  |                                |  | From 3.79n   | n bgl: Becomes lig   | ht brownish grey   | and very  |  |  | -<br>-<br>-<br>(2.87)   |  |
|   | В  | PID = 0.6ppm<br>SPT(C) N<50                                   |                                |  | graveny.   |  |  |   |  |  | -   |  |
|   | ES   | 19,6 for<br>18mm/23,19,8<br>for 44mm                          |                                |  |  |  |  |   |  |  | -   |  |
| Strike Flov   | er Strikes<br>v Remarł   | i<br>(S   | Hole I<br>(mm)<br>300<br>Insp. | e Diamete<br>Dia Depth<br>Hole (<br>0.20<br>Pit 0.55 | er of Date<br>m) 15-09-2022<br>16-09-2022                          | Progress           Time         Hole           Depth (m)           2         14:30         0.20           11:00         0.55 | Casing Water<br>Depth (m) Depth (m                           | 1. Sonic/Rotary Core<br>Redcar. Located in th<br>2. Concrete core cor<br>0.55m bij on hard str<br>3. SO/RC borehole a<br>Corring to 23.00m bgl<br>4. Topography. Level<br>5. Groundwater strike<br>6. Slag and refractory<br>bgl. No offactory evid<br>7. Borehole backfilled | Remar<br>(SO/RC) bore<br>e centre of Re<br>pleted to 0.20<br>atum. Permiss<br>dvanced via So<br>Ground.<br>s not observec<br>material enco<br>ence of contan<br>with bentonite | rks<br>hole located in the Main<br>mediation Zone PR28.<br>m bgl. Buried Service In<br>son granted to progress i<br>onic drilling to 15.00m bg<br>d during drilling due to ad<br>writered in material recom-<br>ination. | Site area of Teo<br>spection Pit term<br>orrehole via So<br>II, and complete<br>dition of flush w<br>vered from 0.55<br>n completion. | esworks,<br>nia draiting.<br>d via Rotary<br>ater.<br>m to 5.30m |
| Notes: For e  | xplanatic  | on of symbols an  | d abbrev                       | iations, se  | e Key Sheet.   | Scale: 1:25  |  | Logged By: RB   |  | Checked E  | By: JW  |  |
| AE                              |                             | <b>CON</b>  |           | <b>AE</b><br>5th<br>2 Ci | ECOI<br>Floor<br>ity Walk | M             | T             | Tel: 0113 391<br>Fax: 0113 391 | 6800<br>I 6899 |                   | B  | orehole  | No. F-I   | 3H11              | 4             |
|---------------------------------|-----------------------------|---|-----------|--------------------------|---------------------------|---------------|---------------|--------------------------------|----------------|-------------------|--|--|---|-------------------|---------------|
|                                 |                             |   |           | Lee<br>LS1               | ds<br>19AR                |               | v             | www.aecom.c                    | om             | REGISTERED USER 2 | She  | et: 2 of 6   |   |                   |               |
| Equipment &                     | Method                      | s:  |           | F                        | Project                   | Name: Net Ze  | ero Teessio   | de Onshore                     | Ground In      | vestigatior       | n - Front End  | Engineering I  | Design (FEED)   | Job No:           |               |
| 0.00 - 0.20 X<br>0.20 - 0.55 In | Calibre Nep<br>Isulated Har | itune Coring Rig<br>nd Tools  |           | F                        | Project                   | Location: Rec | lcar, North   | Yorkshire                      |                |                   |  |  |   | 6067              | 8042          |
| 0.55 - 15.00 S                  | onic Drilling               | (Hammer ID: GS002)  |           | 0                        | Client:                   | BP            |               |                                |                |                   |  |  |   |                   |               |
| 15.00 - 29.00 R                 | otary Coring                | g (Hammer ID: GS002)  |           |                          | Co-ordi                   | nates:        |               |                                | Ground         | Level (m):        |  |  | Date Started:   | 16/09/2022        | 2             |
|                                 |                             |   |           |                          | 1: 4000<br>1: 5254        | 169.587       |               |                                |                |                   | 7.471 A  | OD   | Date Complete   | ed: 21/09/2       | 2022          |
| In                              | Situ Tes                    | ting  | Coring    | Inform                   | nation                    |               |               |                                |                |                   |  | Reduced  |   | Depth             | Backfill/     |
| Depth                           | Sample                      | Test Type   | TCR       | FI                       | Core                      |               | DE            | SCRIPTION                      | I              |                   |  | (m)  | Legend  | (Thick)<br>(m)    | Instrumen     |
| (m)                             | Туре                        | and Result  | RQD       |                          | Run                       |               |               |                                |                |                   |  |  |   |                   | _             |
| - 0.00                          |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | }                 |               |
| +                               |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | }                 |               |
| - 5.30- 5.40                    | D                           |   |           |                          |                           | Verv loose l  | iaht brov     | vn mottler                     | hlack sli      | iahtly ara        | velly fine t   | 2.17   |   | 5.30              |               |
| - 5.40- 6.00                    | В                           |   |           |                          |                           | coarse orga   | nic SAN       | D with oc                      | casional       | shell frag        | ments.   |  | $\cdot$   | -                 |               |
| -5.50                           |                             | PID = 1.0ppm  |           |                          |                           | Gravel is su  | Ibangula      | r fine to m                    | edium of       | sandsto           | ne and   |  |   | -                 |               |
| Ē                               |                             |   |           |                          |                           | (TIDAL FLA    | T DEPO        | SITS)                          |                |                   |  |  | $\frac{1}{2}$ ,   |                   |               |
| -<br>                           | E 0                         |   |           |                          |                           |               |               |                                |                |                   |  |  |   |                   |               |
|                                 | E3                          |   |           |                          |                           |               |               |                                |                |                   |  |  |   |                   |               |
| <b>-6.00</b> - 6.90             | в                           | PID = 0.7ppm  |           |                          |                           |               |               |                                |                |                   |  |  |   | L                 |               |
| -                               | _                           | SPT(S) N=0  |           |                          |                           |               |               |                                |                |                   |  |  | 1/2 · · · · · · · · · · · · · · · · · · ·   | F                 |               |
| +                               |                             | 0,0,0   |           |                          |                           |               |               |                                |                |                   |  |  |   | ┣ │               |               |
| 6.26- 6.57                      |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | F                 |               |
| F                               |                             |   |           |                          |                           | From 6.26r    | n bgl: Be     | ecomes m                       | ottled gre     | ey.               |  |  | $\begin{bmatrix} \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot & \cdot & \cdot \\ \cdot & \cdot &$   | F                 |               |
| -6.50                           |                             | PID = 0.8ppm  |           |                          |                           | From 6.26r    | n to 6.57     | 'm bgl: Be                     | comes g        | ravelly. G        | Gravel is  |  |   | F                 |               |
| F                               |                             |   |           |                          |                           | medium to o   | coarse of     | f mudston                      | e.             |                   |  |  |   | -                 |               |
|                                 |                             |   |           |                          |                           | From 6.57r    | n bgl: Gr     | avel no lo                     | nger pres      | sent.             |  |  |   |                   |               |
| 6 90- 7 50                      | В                           |   |           |                          |                           |               | -             |                                | •              |                   |  |  | $\frac{\sqrt{1}}{\sqrt{2}}$   |                   |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | $\underline{t}_{\underline{t}}$ , $\underline{t}$ |                   |               |
| -                               |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | · · · · · · · ·   | -                 |               |
| -                               |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | -                 |               |
| -                               |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | $\begin{array}{c} \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \\ \cdot & \cdot &$   | -                 |               |
| F                               |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | 1/2   | -                 |               |
| <b>7.50-</b> 8.20               | В                           | PID = 0.8ppm<br>SPT(S) N=39   |           |                          |                           |               |               |                                |                |                   |  |  |   |                   |               |
|                                 |                             | 2,3/  |           |                          |                           | From 7.50r    | n bgl: Be     | ecomes de                      | ense loca      | lly very d        | lense.   |  |   |                   |               |
|                                 |                             | 5,0,11,15   |           |                          |                           |               |               |                                |                |                   |  |  | $\begin{array}{c} \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \\ \cdot & \cdot & \cdot \\ \cdot & \cdot &$   | [ ]               |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | $\frac{1}{2}, \frac{1}{2}, \frac$  |                   |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | · · · · · · · ·   | L                 |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | -                 |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | $\frac{1}{2} \cdot \frac{\sqrt{1}}{2} \cdot \frac{1}{2} \cdot \frac$  | -                 |               |
| 8.30- 9.00                      | B                           |   |           |                          |                           |               |               |                                |                |                   |  |  | $\begin{array}{c} \circ & \cdot & \circ & \cdot \\ \underline{t_{\prime}} & \cdot & \cdot & \underline{t_{\prime}} \\ \cdot & \cdot & \cdot & \underline{t_{\prime}} \\ \cdot & \cdot & \cdot \\ \end{array}$   | -                 |               |
| -                               |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | -                 |               |
| 8.50                            |                             | PID = 0.9ppm  |           |                          |                           |               |               |                                |                |                   |  |  | 0   |                   |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | $\left \begin{array}{cccc} \cdot & \underline{\sqrt{b}} & \underline{\sqrt{b}} \\ \cdot & \underline{\sqrt{b}} & \cdot & \cdot & \cdot & \underline{\sqrt{b}} \\ \cdot & \underline{\sqrt{b}} & \cdot & \cdot & \cdot & \cdot & \underline{\sqrt{b}} \\ \cdot & \underline{\sqrt{b}} & \cdot & \cdot & \cdot & \cdot & \cdot & \cdot \\ \end{array}\right $   | [ ]               |               |
| +   -<br>2 _                    |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | $\begin{array}{cccccccccccccccccccccccccccccccccccc$  | Ľ                 |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | L                 |               |
| 9.00- 9.70                      | в                           | SPT(S) N<50   |           |                          |                           |               |               |                                |                |                   |  |  |   | F                 |               |
|                                 |                             | 1,2/4,9,21,16 for<br>34mm   |           |                          |                           |               |               |                                |                |                   |  |  | $\frac{1}{1} \cdot \frac{\sqrt{1}}{1} \cdot \frac{1}{1} \cdot \frac$  | - (7.63)          |               |
| =                               |                             | J-11111   |           |                          |                           |               |               |                                |                |                   |  |  | $\begin{array}{c} \circ & \cdot & \circ \\ \downarrow_{1} & \cdot & \cdot \\ \downarrow_{2} & \cdot & \cdot \\ \end{array}$   | F                 |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   | F                 |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | 0   | F                 |               |
| 2 - 9.50                        |                             | PID = 0.9ppm  |           |                          |                           |               |               |                                |                |                   |  |  | $\frac{\sqrt{1/2}}{2}$ $\frac{\sqrt{1/2}}{2}$ $\frac{\sqrt{1/2}}{2}$  |                   |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | 00<br>1/  | [ ]               |               |
| 9.75                            | D                           |   |           |                          |                           |               |               |                                |                |                   |  |  |   | [                 |               |
| 9.80-10.50                      | В                           |   |           |                          |                           |               |               |                                |                |                   |  |  | 0   | L                 |               |
| 3                               |                             |   | Ļ.        | -1 -7                    |                           |               | _             |                                |                |                   | 1  |  | $(\underline{v},\underline{v},\underline{v},\underline{v})$   |                   |               |
| Wate<br>Strike Flow             | er Strikes<br>Remark        | s<br><s< td=""><td>H<br/>Hole</td><td>ole Di<br/>Dia</td><td>amete<br/>Depth</td><td>r<br/>of Date</td><td>Progr<br/>Time</td><td>Hole</td><td>Casing</td><td>Water</td><td>1. Sonic/Rotary</td><td>Rema<br/>Core (SO/RC) bore</td><td>rKS<br/>ehole located in the Main</td><td>Site area of Te</td><td>esworks,</td></s<> | H<br>Hole | ole Di<br>Dia            | amete<br>Depth            | r<br>of Date  | Progr<br>Time | Hole                           | Casing         | Water             | 1. Sonic/Rotary                                      | Rema<br>Core (SO/RC) bore  | rKS<br>ehole located in the Main  | Site area of Te   | esworks,      |
| Depth                           |                             |   | (mn       | 1)                       | Hole (r                   | m)            |               | Depth (m                       | Depth (m)      | Depth (m          | Redcar. Locate                                       | d in the centre of Re<br>e completed to 0.20                           | emediation Zone PR2B.<br>Om bgl. Buried Service In<br>sion granted to progress  | spection Pit terr | minated at    |
|                                 |                             |   |           |                          |                           | 16-09-202     | 2 17:30       | 9.00                           | 9.00           | 4.49              | 3. SO/RC bore<br>Coring to 23.00                     | nole advanced via S<br>m bgl.  | sonic drilling to 15.00m by   | gl, and complete  | ed via Rotary |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   | 4. Topography:<br>5. Groundwate                      | Level Ground.<br>strikes not observe                                   | d during drilling due to a  | dition of flush v | vater.        |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   | b. Siag and refibel. No olfactor<br>7. Borehole base | actory material ence<br>y evidence of contain<br>chilled with bentonit | puntered in material reco<br>mination.<br>e pellets and arisings up   | verea trom 0.58   | om to 5.30m   |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  | - Fonoso ana anomyo upi   |                   |               |
|                                 |                             |   |           |                          |                           |               |               |                                |                |                   |  |  |   |                   |               |
| Notes: For e                    | xplanatio                   | on of symbols an  | d abbre   | eviatio                  | ons, se                   | e Key Sheet.  | S             | cale: 1:25                     |                |                   | Logged By:   | RB   | Checked   | By: JW            |               |

| Equipment &   | Method                                   |  |                   | 5th<br>2 C<br>Lee<br>LS | Floor<br>Floor<br>tity Walk<br>eds<br>11 9AR<br>Project | M<br>Tel: 0113 391<br>Fax: 0113 391<br>www.aecom.c<br>Name: Net Zero Teesside Onshore  | 6800<br>6899<br>om Realized Mar and<br>Ground Investigation - Fro  | Bore<br>Sheet: 3   | of 6   | No. F-E  | 3H114  | 4  |
|---|--|--|-------------------|-------------------------|---|--|--|--|--|--|--|--|
| 0.00 - 0.20 X(<br>0.20 - 0.55 In<br>0.55 - 15.00 So   | alibre Nep<br>ulated Har<br>nic Drilling | tune Coring Rig<br>nd Tools<br>(Hammer ID: GS002)                |                   |                         | ,<br>Project<br>Client:                                 | Location: Redcar, North Yorkshire<br>BP  |  | 5  | 5  | 5 ( )  | 6067   | 8042   |
| 15.00 - 29.00 Ro  | tary Coring                              | (Hammer ID: GS002)   |                   |                         | Co-ordi<br>E: 4568                                      | inates:<br>303.946   | Ground Level (m):<br>7.47  | 71 AOD   |  | Date Started:  | 16/09/2022   |  |
| In  | Situ Tes                                 | tina   | Corine            |                         | N: 5254<br>mation                                       | 469.587  |  |  | Reduced  | Date Complete  | d: 21/09/2   | 022<br>Backfill/   |
| Depth<br>(m)  | Sample<br>Ref &<br>Type                  | Test Type<br>and Result  | TCR<br>SCR<br>RQD | FI                      | Core<br>Run   | DESCRIPTION  | I  |  | Level<br>(m)   | Legend   | (Thick)<br>(m)   | Instrument   |
| -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | B<br>D<br>ES                             | PID = 1.3ppm<br>SPT(S) N=7<br>1,0/<br>1,1,1,4                    |                   |                         |   | From 10.12m bgl: Occasiona<br>coal present.<br>From 10.50m bgl: Becomes la<br>From 10.69m to 10.96m bgl:   | l bands of coarse sand<br>cose.<br>Band of very clayey sa  | d sized  |  | $ \begin{array}{c} 0 & 0 \\ 0 & 0 \\ 0 & 0 \\ \frac{1}{2} & 0 \\ 0 & $ |  |  |
| - 11.40- 12.00<br>- 11.50<br>   | В  | PID = 1.1ppm<br>SPT(S) N=37<br>1,1/<br>4,8,11,14<br>PID = 0.9ppm |                   |                         |   | From 12.00m bgl: Becomes c   | lense.   |  | -5 46  |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-  |  |
| Date: 73.45   | ES                                       |  |                   |                         |   | Soft dark greyish brown mottle<br>very organic CLAY<br>(TIDAL FLAT DEPOSITS)   | ed black slightly sandy  | silty  |  |  | <br>(0.52)   |  |
|   | D<br>B<br>SS                             | PID = 0.9ppm<br>SPT(S) N=13<br>1,0/<br>2,2,4,5                   |                   |                         |   | Light brown mottled grey fine<br>occasional shell fragments<br>(TIDAL FLAT DEPOSITS)<br>Firm brown mottled reddish br<br>sandy silty CLAY. Gravel is su<br>medium of sandstone and mu<br>(TILL: DEVENSIAN) | to coarse SAND with<br>own slightly gravelly s<br>bangular to subrounde<br>dstone. Sand is fine to           | lightly<br>ed fine to<br>o medium  | -5.98<br>-6.03   |  | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-  |  |
| L   | ES<br>D<br>B                             | PID = 1.9ppm   |                   |                         |   |  |  |  |  |  |  |  |
| OT J Wate<br>Strike Flow<br>Depth Depth Notes: For P  | Strikes<br>Remark                        | s<br>s<br>n of symbols an  | d abbr            | e Dia<br>n)             | iamete<br>Depth<br>Hole (I<br>15.00                     | er Progress<br>of Date Time Hole<br>Depth (m)<br>Depth (m)<br>Scale: 1:25  | Casing Water 1. Sor<br>Pepth (m) Depth (m) 2. Cor<br>0.55m<br>3. SO,<br>Coring<br>6. Sla<br>bgl. N<br>7. Bor | hic/Rotary Core (S<br>ar. Located in the<br>crete core compl<br>bgj on hard stratt<br>(RC borenhe adv<br>to 23.00m bg].<br>oography: Level G<br>and refractory m<br>ehole backfilled w<br>d By: RB | Remar<br>SO/RC) bore<br>contre of Re-<br>eted to 0.20<br>um. Permiss<br>anced via So<br>round.<br>not observe-<br>naterial enco<br>ce of contan<br>ith bentonite | ks<br>hole located in the Main<br>mediation Zone PR2B.<br>In byl. Buried Service Ins<br>ion granted to progress I<br>nic drilling to 15.00m bg<br>I during drilling due to ad<br>untered in material reco-<br>nination.<br>pellets and arisings upo<br>Checked E   | Site area of Tere<br>pection Pit term<br>porehole via Sor<br>or a Sor<br>sorthole via Sor<br>sorthole via Sorthole<br>sorthole via Sorthole<br>dition of flush w<br>rered from 0.55<br>n completion. | isworks,<br>nia drilling.<br>d via Rotary<br>ater.<br>m to 5.30m |

| A   | C  | <b>O</b>  |                   | 5th<br>2 C             | ECOI<br>Floor<br>City Walk    | М                             | T<br>F<br>V                     | Tel: 0113 391<br>Fax: 0113 39 <sup>-</sup><br>www.aecom.c | 6800<br>1 6899<br>com | AGS                  |  |  | ehole  | No.   | F-B   | H11  | 4  |
|---|--|---|-------------------|------------------------|-------------------------------|-------------------------------|---------------------------------|---|-----------------------|----------------------|--|--|--|---|---|--|--|
| Equipment &<br>0.00 - 0.20 X<br>0.20 - 0.55 In<br>0.55 - 15.00 S  | Method:<br>Calibre Nep<br>sulated Har<br>pnic Drilling | S:<br>tune Coring Rig<br>Id Tools<br>(Hammer ID: GS002) |                   |                        | Project<br>Project<br>Client: | Name: Ne<br>Location: I<br>BP | t Zero Teessio<br>Redcar, North | de Onshore<br>ı Yorkshire                                 | Ground Ir             | ivestigation         | i - Front E  | End Enç  | gineering [  | Design (FEE   | ED)   | Job No:<br>6067  | 8042   |
| 15.00 - 29.00 R   | otary Coring   | (Hammer ID: GS002)                                      |                   |                        | Co-ordi<br>E: 4568            | nates:<br>03.946              |                                 |   | Ground                | Level (m):           | 7.471  | AOD  |  | Date Sta  | arted: 10<br>mpleted  | 6/09/2022<br>I· 21/09/2  | 2<br>2022  |
| In  | Situ Tes   | ting  | Corin             | g Infoi                | N: 5254<br>mation             | 69.587                        |                                 |   |                       |                      |  |  | Reduced  | Date 00   | mpieteu   | Depth  | Backfill/  |
| Depth<br>(m)  | Sample<br>Ref &<br>Type                                | Test Type<br>and Result                                 | TCR<br>SCR<br>RQD | FI                     | Core<br>Run                   |                               | DES                             | SCRIPTION   | I                     |                      |  |  | Level<br>(m)   | Lege  | nd  | (Thick)<br>(m)   | Instrumen  |
| -<br>-<br>_ 15.27- 15.50<br>-   | С  |   | 100<br>0<br>0     |                        | 15.00-<br>15.50               | From 15                       | i.00m bgl: B                    | Becomes I   | ocally sti            | ff.                  |  |  |  |   |   | _  |  |
|   |  |   | 100 0 0           | CLAY                   | 15.50-<br>17.00               | From 17<br>Occasior           | '.19m bgl: G<br>nal coal pres   | Gravel bec<br>sent.                                       | comes fin             | e to coars           | se.  |  |  |   |   | (6.73)   |  |
| овес и 11:1. ИХТ 16:1-0-1 Плану; ИХТ 14:0-2 4 Л ГРИДАНТ И 1-2:0-ГР II ГЛИГС<br>18.8.8.7<br>19.2.8.1 11.1 11.1 11.1 11.1 11.1 11.1 11. | с  |   | 000               |                        | 18.50-20.00                   | From 18<br>From 18            | 9.24m to 18.<br>9.50m bgl: S    | .27m bgl:<br>Sand is ab                                   | Become:<br>sent.      | s very gra           | ivelly.  |  |  |   |   | -  |  |
| ม<br>   |  |   |                   |                        |                               |                               |                                 |   |                       |                      |  |  |  |   |   |  |  |
| Strike Flow<br>Depth  | r Strikes<br>Remark                                    | S   | Hol<br>(mr        | Hole D<br>le Dia<br>n) | Depth<br>Hole (r              | r Date<br>of Date<br>n)       | Progr<br>Time                   | ress<br>Hole<br>Depth (m                                  | Casing<br>) Depth (m  | Water<br>) Depth (m) | 1. Sonic/R<br>Redcar. Lo<br>2. Concret<br>0.55m bgl<br>3. SO/RC I<br>Coring to 2<br>4. Topogra<br>5. Groundv<br>6. Slag and<br>bgl. No olfa<br>7. Borehole | otary Core<br>ccated in th<br>e core com<br>on hard str<br>borehole a<br>3.00m bgl<br>uphy: Level<br>vater strike<br>d refractory<br>actory evid<br>e backfilled | Remai<br>(SO/RC) bore<br>e centre of Re<br>pleted to 0.20<br>dum. Permiss<br>dvanced via So<br>Ground.<br>is not observed<br>material enco<br>ence of contan<br>with bentonite | ks<br>hole located in t<br>mediation Zone<br>mole. Buried So<br>ion granted to p<br>onic drilling to 18<br>I during drilling to<br>untered in mate<br>nination.<br>pellets and aris | the Main Si<br>PR2B.<br>ervice Inspo<br>rogress bo<br>5.00m bgl,<br>due to addi<br>erial recove<br>sings upon | te area of Te<br>ection Pit terr<br>rehole via Sc<br>and complete<br>tion of flush v<br>red from 0.58<br>completion. | esworks,<br>minated at<br>nric drilling,<br>ad via Rotary<br>vater.<br>5m to 5.30m |
| ∑<br>Notes: For e   | planatio   | n of symbols an   | l<br>Id abbi      | reviati                | l<br>ons, se                  | e Key Shee                    | et. So                          | <br>cale: 1:25  | <u> </u>              |                      | Logged By  | y: RB  |  | Che   | ecked By  | /: JW  |  |

|        | A                  | EC                              | <b>O</b>                                 |              | <b>A</b><br>5th<br>2 0 | ECOI<br>Floor<br>City Walk | M                | T                    | Tel: 0113 391<br>Fax: 0113 391 | 6800<br>6899        |                        |                    | Bore   | ehole   | No. F   | -BH11   | 4                              |
|--------|--------------------|---------------------------------|--|--------------|------------------------|----------------------------|------------------|----------------------|--------------------------------|---------------------|------------------------|--------------------|--|---|---|---|--------------------------------|
|        |                    |                                 |  | _            | Le<br>LS               | eds<br>11 9AR              |                  | V                    | www.aecom.c                    | om                  | REGISTERED USER        | 2022               | Sheet:   | 5 of 6  |   |   |                                |
|        |                    | t & Methods                     | S:<br>tune Coring Rig                    |              |                        | Project                    | Name: Net Zer    | ro Teessio           | de Onshore                     | Ground Inv          | vestigatio             | n - Fro            | nt End Eng   | jineering D                                       | Design (FEED)   | ) Job No:   |                                |
|        | 0.20 - 0.55        | Insulated Han                   | id Tools                                 |              |                        | Project                    | Location: Redo   | car, North           | I Yorkshire                    |                     |                        |                    |  |   |   | 6067  | 8042                           |
|        | 0.55 - 15.00       | Sonic Drilling<br>Rotary Coring | (Hammer ID: GS002)<br>(Hammer ID: GS002) |              |                        | Client:                    | BP               |                      |                                | Creverd             |                        |                    |  |   | Data Starta   | 4. 16/00/2020   | <u></u>                        |
|        |                    |                                 | ()                                       |              |                        | Co-orai<br>E: 4568         | nates:<br>03.946 |                      |                                | Ground              | Level (m)              | ):<br>7.47         | 1 AOD  |   | Date Starte   | 0: 16/09/2022   |                                |
|        |                    | In City Teel                    | tion of                                  | Carin        |                        | N: 5254                    | 69.587           |                      |                                |                     |                        |                    |  | Deduced   | Date Comp   |   | Deel/fill/                     |
|        | Dauth              | In Situ Tesi<br>Sample          | ling                                     | TCR          | g Info<br>T            | rmation                    |                  | DE                   | SCRIPTION                      | 1                   |                        |                    |  | Level   | Legend  | (Thick)   | Instrument                     |
|        | Depth<br>(m)       | Ref &                           | Test Type<br>and Result                  | SCR          | FI                     | Run                        |                  | 52                   |                                |                     |                        |                    |  | (m)   | Logona  | (m)   |                                |
|        |                    | Туре                            | unartoout                                | RQD          |                        | 20.00-                     |                  |                      |                                |                     |                        |                    |  |   |   | _1 _1   |                                |
|        | -                  |                                 |  |              |                        | 21.50                      |                  |                      |                                |                     |                        |                    |  | 10.76   |   |   |                                |
|        | - 20.30            | ES                              |  |              |                        | 1 1                        | Weak friable     | thinly la            | aminated                       | blueish g           | rey MUE                | озто               | NE.  | -12.70  |   | 20.23   |                                |
|        | -                  |                                 |  |              |                        |                            | Locally recov    | vered as             | s very stiff                   | gravelly            | clay. Gra              | avel is            | 5  |   |   |   |                                |
| +      | -                  |                                 |  |              |                        |                            | (REDCAR M        | UDSTO                | NE FORM                        | ATION)              |                        |                    |  |   |   | ⊒- ∣  |                                |
| ł      | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | -                  |                                 |  | 100<br>0     |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | -                  |                                 |  | 0            |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| Į      |                    |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>⊒</b> [  |                                |
|        | _                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ļ      | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | ,   |                                |
| ╞      | -                  |                                 |  |              | 0                      |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | _                  |                                 |  |              |                        | 21 50                      |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | -                  |                                 |  |              |                        | 23.00                      |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ł      | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| Ī      | -<br>21.97-22.     | 20 C                            |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
|        | _                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
|        | _                  |                                 |  | 100          |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
|        | -                  |                                 |  | 5<br>0       |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
|        | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>-</b>  |                                |
| ł      |                    |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>-</b>  |                                |
| 2022   | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ber ;  | -                  |                                 |  |              | 14                     | 1                          |                  |                      |                                |                     |                        |                    |  |   |   | ₽   |                                |
| ovem   | -                  |                                 |  |              |                        |                            | From 22.68       | m bgl: L             | ocally me                      | dium stro           | ng with                | shell              | fossils.   |   |   |   |                                |
| 29 N   | -                  |                                 |  |              |                        |                            | undulating ro    | or prese<br>ough, op | pen, clean                     | or infilled         | , norizor<br>d with so | oft gre            | y clay.  |   |   |   |                                |
| ate:   | _                  |                                 |  |              |                        | 23.00-                     | 0                |                      |                                |                     |                        | Ū                  |  |   |   |   |                                |
|        | _                  |                                 |  |              | CLAY                   | 24.50                      |                  |                      |                                |                     |                        |                    |  |   |   | =[  |                                |
| GLE    | _                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| 5      | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | ⊒   |                                |
| MRY    | _                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>-</b>  |                                |
| LIBR   | -                  |                                 |  |              | 0                      |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| 40     | -                  |                                 |  | 100<br>43    | CLAY                   | .                          |                  |                      |                                |                     |                        |                    |  |   |   | <b></b>   |                                |
| AGS    | -                  |                                 |  | 39           | <u> </u>               |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>}</b>  |                                |
| 1Z     | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| ary: I | _                  |                                 |  |              | 0                      |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| Libr   | _                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>I</b>  |                                |
| I L de | -                  |                                 |  |              | CLAY                   |                            |                  |                      |                                |                     |                        |                    |  |   |   | ╡   |                                |
| 0.10   | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| Z      | _                  |                                 |  |              | -                      | 24.50                      |                  |                      |                                |                     |                        |                    |  |   |   | ⊒-  |                                |
| 11.1   | -                  |                                 |  |              |                        | 24.50-                     | From 24.50       | m to 25              | .03m bal                       | Freauent            | shell for              | ssils.             |  |   |   | - (8.77)  |                                |
| sct: < | -                  |                                 |  |              |                        |                            |                  | 0.                   |                                | -10-14              |                        |                    |  |   |   | ₽   |                                |
| Proje  | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| 1<br>D | -                  |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   | <b>=</b>  |                                |
| ЧЦ     | Wa                 | ater Strikes                    |  | ŀ            | Hole D                 | Diamete                    | r<br>(F)         | Progr                | ress                           |                     | 144 1                  | 4.0                | in/Peter C   | Remar   | ks  | Aoin Cita   |                                |
| Щ      | Strike Fl<br>Depth | ow Remark                       | is <u> </u>                              | Ho<br>(mr    | le Dia<br>m)           | Depth<br>Hole (r           | of Date          | Time                 | Hole<br>Depth (m)              | Casing<br>Depth (m) | Water<br>Depth (m      | 1. Son<br>Redca    | r. Located in the                                    | (SO/RC) bore<br>e centre of Re<br>pleted to 0.20  | hole located in the M<br>mediation Zone PR<br>m bgl. Buried Service | Main Site area of Te<br>2B.<br>ce Inspection Pit terr | esworks,                       |
| SORE   |                    |                                 |  |              | ,                      |                            | 20-09-2022       | 16:30                | 23.00                          | 23.00               | 1.23                   | 0.55m<br>3. SO/    | bgl on hard stra<br>RC borehole ad                   | atum. Permiss<br>dvanced via Sc                   | ion granted to progr<br>nic drilling to 15.00                       | ress borehole via Sc<br>m bgl, and complete           | nic drilling.<br>ed via Rotary |
| RD C   |                    |                                 |  |              |                        |                            |                  |                      |                                |                     |                        | Coring<br>4. Top   | to 23.00m bgl.<br>ography: Level                     | Ground.   |   |   | -                              |
| NDA    |                    |                                 |  |              |                        |                            |                  |                      |                                |                     |                        | 5. Grou<br>6. Slag | unowater strike<br>and refractory<br>offactory evide | s not observed<br>material enco<br>ence of contan | utered in material  | to addition of flush v<br>recovered from 0.55         | im to 5.30m                    |
| STA    |                    |                                 |  |              |                        |                            |                  |                      |                                |                     |                        | 7. Bore            | ehole backfilled                                     | with bentonite                                    | pellets and arisings  | upon completion.                                      |                                |
| Ξ      |                    |                                 |  |              |                        |                            |                  |                      |                                |                     |                        |                    |  |   |   |   |                                |
| Cepor  | Notes: For         | explanatio                      | n of symbols an                          | l<br>Id abhi | reviati                | ions se                    | e Kev Sheet      | S                    | cale: 1:25                     |                     | l                      | Logged             | d By: RB   |   | Check   | ed By: JW   |                                |
| ۳ſ     | 110185. FUI        | onpiai iati0                    | or symbols an                            | ັດປນ         | Undl                   | 513, 58                    | a nay oneet.     |                      |                                |                     |                        |                    |  |   | I   |   |                                |

|                  | ΛΞ  |                               | <b>M</b>   | A             | A<br>5th         | ECON<br>Floor             | M  | Tel: 0113 391             | 6800                                   |                          |   | Bore  | ehole  | No.  | F-E  | 3H114                           | 4                            |
|------------------|---|-------------------------------|--|---------------|------------------|---------------------------|--|---------------------------|--|--------------------------|---|---|--|--|--|---------------------------------|------------------------------|
|                  |   |                               |  | 4             | 2 C<br>Lee<br>LS | ity Walk<br>eds<br>11 9AR |  | Fax: 0113 391             | l 6899<br>om                           | AGS<br>REGISTERED USER 2 | 2022                                      | Sheet: (  | 6 of 6   |  |  |                                 |                              |
|                  | Equipment 8   | Method:<br>Calibre Nep        | S:<br>tune Coring Rig                                |               |                  | Project<br>Project        | Name: Net Zero Teessi<br>Location: Redcar, North | de Onshore<br>1 Yorkshire | Ground Inv                             | /estigatior              | n - Fron                                  | nt End Eng  | jineering D  | esign (F   | EED)   | Job No:<br>60678                | 8042                         |
|                  | 0.20 - 0.55 II<br>0.55 - 15.00 S<br>15.00 - 29.00 F | onic Drilling<br>otary Coring | id Tools<br>(Hammer ID: GS002)<br>(Hammer ID: GS002) | 1             |                  | Client:                   | BP   |                           | Ground                                 | ovel (m)                 |   |   |  | Date   | Started: 1                                       | 6/00/2022                       |                              |
|                  |   |                               |  |               |                  | E: 4568<br>N: 5254        | 03.946<br>69.587                                 |                           | Ground                                 | Lever (III).             | 7.471                                     | 1 AOD   |  | Date C   | Complete   | d: 21/09/2                      | 022                          |
| -                | In<br>Depth   | Situ Tes                      | ting<br>Test Type                                    | Corine<br>TCR | g Infor          | mation<br>Core            | DE   | SCRIPTION                 |  |                          |   |   | Reduced<br>Level<br>(m)  | Le   | gend   | Depth<br>(Thick)<br>(m)         | Backfill/<br>Instrument      |
|                  | (m)   | Туре                          | and Result   | RQD           |                  | Run                       |  |                           |  |                          |   |   |  |  |  | (,                              |                              |
| ļ                | -   |                               |  | 100<br>100    |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -   |                               |  | 94            | 4                |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -<br>_ 25.77- 26.00                                 | c                             |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| -                | -   |                               |  |               |                  | 26.00-<br>27.50           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| ļ                | -   |                               |  |               | CLAY             |                           | From 26.15m bgl: F<br>20-35° planar roug         | <sup>-</sup> racture se   | et 2 prese<br>lean or inf              | nt: Close                | ely spa<br>h soft                         | aced,<br>arev   |  |  |  | -                               |                              |
| ļ                | -   |                               |  |               | 0                |                           | clay.  | ., .p, .                  |  |                          |   | 9.09  |  |  |  | -                               |                              |
|                  | -   |                               |  | 100           | CLAY<br>0        |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -   |                               |  | 71<br>49      | CLAY             |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | _   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | _                               |                              |
|                  | -   |                               |  |               | 8                |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -   |                               |  |               | CLAY             |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| 7.7.7            | -   |                               |  |               | -                | 27.50-<br>29.00           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| /ember 2         | -   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| : 29 Nov         | -   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | _                               |                              |
| 3    Date        | -   |                               |  | 100           | 4                |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| 1.3.GLF          | -   |                               |  | 97<br>94      |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| KARY V           | _   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| 4_0 LIB          | 28.66- 29.00  | c                             |  |               | NI               |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
|                  | -   |                               |  |               | 0                |                           |  |                           |  |                          |   |   |  |  |  | -                               |                              |
| orary: Nz        | _   |                               |  |               |                  |                           |  |                           |  |                          |   |   | -21.53 <b>[</b>  |  |  | _29.00                          |                              |
| iru    Lit       |   |                               |  |               |                  |                           | <b>F</b>   |                           | - 1- 00 00                             |                          |   |   |  |  |  |                                 |                              |
| 5.15<br>17       |   |                               |  |               |                  |                           | Enc<br>(Th                                       | ickness of<br>not prc     | <b>ole 29.00</b><br>basal lay<br>oven) | <b>m</b><br>ver          |   |   |  |  |  |                                 |                              |
| N 1.11 N         |   |                               |  |               |                  |                           |  |                           | ,                                      |                          |   |   |  |  |  |                                 |                              |
| Project:         |   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  |                                 |                              |
| LOG              | \M/ot   | Ar Strikes                    |  |               |                  | iameter                   | - Drog   | ress                      |  |                          | 1   |   | Remark   | ks   |  |                                 |                              |
| AEHOLE<br>AEHOLE | Strike Flov<br>Depth                                | / Remark                      | (S   | Hol<br>(mr    | ne Dia<br>n)     | Depth<br>Hole (r          | of Date Time                                     | Hole<br>Depth (m)         | Casing<br>) Depth (m)                  | Water<br>Depth (m        | 1. Sonic<br>Redcar.<br>2. Conc            | /Rotary Core<br>Located in the<br>rete core com                         | (SO/RC) boreh<br>e centre of Ren<br>pleted to 0.20n                  | nole located<br>mediation Zo<br>n bgl. Buried            | in the Main S<br>one PR2B.<br>d Service Insp     | ite area of Tee                 | esworks,<br>ninated at       |
| בי כי כי         |   |                               |  | 146           | 6                | 29.00                     | 21-09-2022 14:15                                 | 29.00                     | 29.00                                  |                          | 0.55m b<br>3. SO/R<br>Coring t<br>4. Topo | ogi on hard stra<br>C borehole ac<br>o 23.00m bgl.<br>graphy: Level     | aum. Permissio<br>Ivanced via So<br>Ground.                          | on granted t   | o progress b<br>15.00m bgl                       | orenole via Sor<br>and complete | แc ariiling.<br>d via Rotary |
| IANDA            |   |                               |  |               |                  |                           |  |                           |  |                          | 5. Grou<br>6. Slag<br>bgl. No<br>7. Borel | nowater strikes<br>and refractory<br>olfactory evide<br>hole backfilled | s not observed<br>material encou<br>ence of contam<br>with bentonite | uning drillir<br>untered in m<br>ination.<br>pellets and | ig que to add<br>aterial recove<br>arisings upor | ered from 0.55                  | aller.<br>m to 5.30m         |
|                  |   |                               |  |               |                  |                           |  |                           |  |                          |   |   |  |  |  |                                 |                              |
| 9<br>2<br>6      | Notes: For e  | xplanatio                     | on of symbols an                                     | id abbi       | reviati          | ons, see                  | e Key Sheet.                                     | cale: 1:25                |  |                          | Logged                                    | By: RB  |  | C  | Checked B  | y: JW                           |                              |

| ΛΞ                       |                         | 5                           | <b>A</b>          | AEC                         | OM                |   | ٦                                   | Fel: 0113 301         | 6800                   |                           | Boi   | rehole   | No. F   | -BH12  | 20   |
|--------------------------|-------------------------|-----------------------------|-------------------|-----------------------------|-------------------|---|-------------------------------------|-----------------------|------------------------|---------------------------|---|--|---|--|--|
|                          |                         |                             |                   | 2 City V<br>Leeds<br>LS11 9 | /alk<br>AR        |   | F                                   | Fax: 0113 391         | 1 6899<br>om           | AGS<br>REGISTERED USER 20 | 2 Sheet:  | 1 of 8   |   |  |  |
| Equipment 8              | Method                  | S:<br>nd Tools              |                   | Proj                        | ect N             | ame: Net Zer                            | o Teessio                           | de Onshore            | Ground Ir              | ivestigation              | - Front End E   | ngineering   | Design (FEED)   | ) Job No   |  |
| 0.30 - 15.00 S           | onic Drilling           | (Hammer ID: GS10)           |                   | Proj                        | ect Lo            | ocation: Redo                           | ar, North                           | Yorkshire             |                        |                           |   |  |   | 606  | 78042  |
| 15.00 - 39.00 H          | otary Coring            | (Hammer ID: GS IU)          |                   | Cilei<br>Co-c               | ordina            | ates:                                   |                                     |                       | Ground                 | Level (m):                |   |  | Date Starte   | d: 02/08/202   | 2  |
|                          |                         |                             |                   | E: 4                        | 5686              | 7.388                                   |                                     |                       |                        | ( )                       | 7.185 AOE   | )  | Date Comp   | oleted: 09/08/   | 2022   |
| In                       | Situ Tes                | ting                        | Coring            | Informat                    | 2540<br>ion       | 0.960                                   |                                     |                       |                        |                           |   | Reduced  |   | Depth  | Backfill/  |
| Depth<br>(m)             | Sample<br>Ref &<br>Type | Test Type<br>and Result     | TCR<br>SCR<br>RQD | FI Co<br>Ru                 | re<br>in          |   | DE                                  | SCRIPTION             | 1                      |                           |   | (m)  | Legend  | (Thick)<br>(m)   | Instrumen  |
|                          |                         |                             |                   |                             | N<br>(I           | MADE GRO<br>MADE GRO                    | UND: B<br><b>UND)</b>               | lack ASPI             | HALT                   |                           |   |  |   | (0.25)   |  |
| -                        |                         |                             |                   |                             | N<br>s            | ADE GRO<br>ubrounded                    | UND: B<br>fine to c<br>and is fi    | rown and<br>coarse GF | black sa<br>RAVEL of   | ndy angu<br>slag, brid    | lar to<br>ck, concrete  | 6.94<br>6.92<br>6.77   |   | (0.82)<br>(0.75)<br>(0.75)<br>- 0.42   |  |
| 0.50<br>                 |                         | PID = 0.7ppm                |                   |                             | (I<br>N           | MADE GRO                                | UND: G                              | rey CON               | CRETE                  |                           |   | _  |   | $\mathbf{X}$   |  |
| -                        |                         |                             |                   |                             | (I<br>N           | MADE GRO                                | UND: B                              | rown mott             | led black              | very san                  | dy angular i  | to   |   | 8  |  |
|                          |                         | PID = 1.1ppm                |                   |                             | re<br>S<br>(I     | ounded fine<br>Sand is fine<br>MADE GRO | to coars<br>to coars<br><b>UND)</b> | se GRAV<br>se         | EL of sla              | g, concre                 | te and cher   | I.   |   | ×-   |  |
|                          |                         |                             |                   |                             |                   |   |                                     |                       |                        |                           |   |  |   |  |  |
| -<br>                    |                         | PID = 0.9ppm                |                   |                             |                   |   |                                     |                       |                        |                           |   |  |   |  |  |
|                          |                         |                             |                   |                             |                   |   |                                     |                       |                        |                           |   |  |   | (2.58)   |  |
| -2.00<br>-               |                         | PID = 1.2ppm                |                   |                             | F                 | From 1.90m                              | bgl: Oc                             | casional              | organic r              | naterial p                | resent.   |  |   | ×-   |  |
| -                        |                         |                             |                   |                             |                   |   |                                     |                       |                        |                           |   |  |   |  |  |
| -2.50                    |                         | PID = 1.0ppm                |                   |                             |                   |   |                                     |                       |                        |                           |   |  |   | 8-   |  |
|                          |                         |                             |                   |                             |                   |   |                                     |                       |                        |                           |   |  |   |  |  |
|                          |                         | PID = 1.1ppm                |                   |                             | N<br>re           | ADE GRO                                 | UND: Li<br>to coar                  | ght grey r<br>se GRAV | nottled b<br>EL of sla | rown san<br>g. Sand is    | dy angular to<br>s fine to  | 4.19<br>o  |   | 3.00   |  |
| - 3.30- 3.74             | в                       |                             |                   |                             | (1                | MADE GRO                                | UND)                                |                       |                        |                           |   |  |   | (0.74)   |  |
| <b>3.50</b><br>3.60      | ES                      | PID = 0.8ppm<br>SPT(C) N=19 |                   |                             |                   |   | iosed re                            | mediation             | i ievel 3.             | om AUD.                   |   |  |   | $\mathbf{X}$   |  |
| 5<br><b>1</b> 3.74- 4.10 | В                       | 2,4/<br>3,3,5,8             |                   |                             | N                 | IADE GRO                                | UND: B                              | rown mott             | led grey               | and yello                 | w gravelly  | 3.45   |   | 3.74   |  |
| 4.00                     |                         | PID = 0.5ppm                |                   |                             | ti<br>C<br>(I     | ne to coars<br>oarse of sla<br>MADE GRO | e SAND<br>ig, sand<br><b>UND)</b>   | stone, mu             | s angula<br>idstone a  | r to subro<br>and chert   | unaed fine t  | .0   |   | (0.36)   |  |
| <sup>8</sup> − 4.10-4.50 | B                       |                             |                   |                             | N<br>re<br>c      | ADE GRO<br>ounded fine<br>oarse         | UND: Li<br>to coar                  | ght grey r<br>se GRAV | nottled b<br>EL of sla | rown san<br>g. Sand is    | dy angular t<br>s fine to   | 0  |   | 4.10   |  |
| 5<br>                    | D<br>ES                 | PID = 1.0ppm<br>SPT(C) N>50 |                   |                             | (1                | MADE GRO                                | UND)                                |                       |                        |                           |   |  |   | (0.73)   |  |
| 4.83- 5.20               | в                       | / 20,12,11,7 for<br>50mm    |                   |                             | N                 | Aedium den                              | se vello                            | wish brow             | /n mottle              | d dark or                 | ev slightly   | 2.36   |   | 4.83   |  |
| 8                        |                         |                             |                   |                             | g                 | ravelly silty                           | fine to o                           | coarse SA             | ND with                | occasion                  | al organic  |  | · · · · · · · · · ·   | .× .   |  |
| Wate                     | r Strikes               | s<br>(s                     | Hole              | ole Diam                    | eter              | f Date                                  | Progr                               | ess<br>Hole           | Casing                 | Water                     | 1. Sonic/Rotary Co  | Rema   | rks<br>ehole located in the f   | Main Site area of T  | eesworks,  |
| Depth                    |                         |                             | (mm<br>Inst       | b. Pit 0.3                  | <u>e (m)</u><br>0 | 02-08-2022                              | 12:00                               | Depth (m)             | ) Depth (m             | ) Depth (m)               | Redcar. Located ir<br>2. Buried Services<br>granted to progres<br>3. SO/RC borehold<br>Coring to 39.00m t<br>4. Topography: Le<br>5. Groundwater str<br>6. Slag encountere<br>bgl. No olfactory e | the west of Rer<br>Inspection Pit te<br>s borehole via Sogl.<br>vel Ground.<br>ikes not observe<br>d in material rec<br>vidence of conta | mediation Zone PR1<br>rminated at 0.30m b<br>onic drilling.<br>Sonic drilling to 15.00<br>d during drilling due<br>overed from 0.25m t<br>mination. | B.<br>gl on hard stratum<br>Im bgl, and comple<br>to addition of flush<br>to 0.27m bgl and 0 | Permission<br>ted via Rotary<br>water.<br>.42m and 4.83m |
|                          |                         |                             |                   |                             |                   |   |                                     | cale: 1:25            |                        |                           | Completion, to allow  | ed with an 80mm<br>w Vertical Seism  | internal diameter stric Profiling.  | red By: IW   | bgl upon   |
| 2 Notes: For e           | xplanatic               | on of symbols an            | d abbre           | eviations,                  | see               | Key Sheet.                              |                                     | JUID. 1.20            |                        |                           |   | -  | Check   | y. UVV   |  |

| Control         Control <t< th=""><th></th><th>ΛΞ</th><th></th><th></th><th>4</th><th>A</th><th>ECON</th><th>И</th><th>-</th><th></th><th></th><th></th><th></th><th>Bore</th><th>ehole</th><th>No.</th><th>F-E</th><th>3H12</th><th>0</th><th></th></t<>  |          | ΛΞ               |               |                             | 4           | A                        | ECON                            | И              | -         |  |                      |                      |                                 | Bore   | ehole                            | No.                                     | F-E                   | 3H12              | 0           |           |
|--|----------|------------------|---------------|-----------------------------|-------------|--------------------------|---------------------------------|----------------|-----------|--|----------------------|----------------------|---------------------------------|--|----------------------------------|---|-----------------------|-------------------|-------------|-----------|
| Capiter 4:         End ::         Project Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Not 20 Tessible Ordero Good Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Investigation: Food Ed Egreering Design (FED)         Abit: ::         Design Name: Investigation: Food Ed Egreering Design (FED)         Design Name: Investigation: Food Ed  |          | A                |               |                             |             | 5th<br>2 C<br>Lee<br>LS1 | Floor<br>ity Walk<br>ds<br>19AR |                | F<br>W    | el: 0113 391<br>ax: 0113 391<br>ww.aecom.c | 6800<br>1 6899<br>om |                      | 2022                            | Sheet: 2   | 2 of 8                           |   |                       |                   |             |           |
| Image: Table Reserved Web State         Project Labeler Reserved Web State         Example Reserved Web State <td></td> <td>Equipment &amp;</td> <td>Methods</td> <td>5:<br/></td> <td></td> <td>F</td> <td>Project I</td> <td>Name: Net Zer</td> <td>o Teessid</td> <td>le Onshore</td> <td>Ground Ir</td> <td>ivestigatio</td> <td>n - Fron</td> <td>nt End Eng</td> <td>jineering D</td> <td>Design (Fl</td> <td>EED)</td> <td>Job No:</td> <td></td> <td></td>  |          | Equipment &      | Methods       | 5:<br>                      |             | F                        | Project I                       | Name: Net Zer  | o Teessid | le Onshore                                 | Ground Ir            | ivestigatio          | n - Fron                        | nt End Eng                                       | jineering D                      | Design (Fl                              | EED)                  | Job No:           |             |           |
| Party - 201         Early caregolithmetric Rolls         Later III P         Constrained Status         Desk Team         Desk Team <thdesk team<="" th=""></thdesk>   |          | 0.30 - 15.00 Sc  | nic Drilling  | (Hammer ID: GS10)           |             | F                        | Project I                       | Location: Redo | ar, North | Yorkshire                                  |                      |                      |                                 |  |                                  |   |                       | 6067              | 8042        |           |
| Example         Grant Lening<br>to Statute and<br>the Statute and the Statute and th  |          | 15.00 - 39.00 Ro | tary Coring   | (Hammer ID: GS10)           |             |                          | Client: E                       | BP             |           |  | 0                    | 1                    | 1.                              |  |                                  | Data 0                                  | 4 - 14 - 11 - C       | 0.00.000          | <u> </u>    |           |
| In Stati Trading         Descriptionality         Descriptionality <thdescriptionality< th=""> <thdescriptionality< t<="" td=""><td></td><td></td><td></td><td></td><td></td><td>E</td><td>20-orair<br/>E: 4568</td><td>67.388</td><td></td><td></td><td>Ground</td><td>Level (m)</td><td>):<br/>7.185</td><td>5 AOD</td><td></td><td>Date S</td><td>carted: (</td><td>JZ/U8/ZUZ</td><td><u>&lt;</u></td><td></td></thdescriptionality<></thdescriptionality<>  |          |                  |               |                             |             | E                        | 20-orair<br>E: 4568             | 67.388         |           |  | Ground               | Level (m)            | ):<br>7.185                     | 5 AOD  |                                  | Date S                                  | carted: (             | JZ/U8/ZUZ         | <u>&lt;</u> |           |
| Definit         Become<br>Trade         CR         Point         CR         Point           500         Trade         Terr Type         CR         Point         P   |          | In               | Situ Test     | lina                        | Coring      | Infor                    | N: 5254                         | 00.960         |           |  |                      |                      |                                 |  | Reduced                          | Date C                                  | ompiete               | Denth             |             | ackfill/  |
| (m)         PLA         Let Use<br>(m)         (m)         (m)         (m)           500         5   |          | Denth            | Sample        |                             | TCR         |                          | Core                            |                | DES       | CRIPTION                                   | 1                    |                      |                                 |  | Level                            | Leg                                     | gend                  | (Thick)           | Ins         | trument   |
| 100         PD = 12901         material and self fragments. Gravel is subangular to sub  |          | (m)              | Ref &<br>Type | Test Type<br>and Result     | SCR<br>RQD  | FΙ                       | Run                             |                |           |  |                      |                      |                                 |  | ()                               |   |                       | (m)               |             |           |
| 2.33.30     D     Fill   |          | 5.00<br>-        |               | PID = 1.2ppm                |             |                          |                                 | material and   | shell fra | agments.                                   | Gravel is            | subang               | ular to                         |  |                                  | ×<br>· · ×                              | ×<br>· · ×            | -                 |             |           |
| 5.32         E0         Fig         Fig <td></td> <td>- 5.20- 5.30</td> <td>D</td> <td></td> <td></td> <td></td> <td></td> <td>(TIDAL FLA)</td> <td>DEPOS</td> <td>SITS)</td> <td>muasion</td> <td>e and sa</td> <td>nastor</td> <td>le</td> <td></td> <td>×</td> <td>×</td> <td>-  </td> <td></td> <td></td>  |          | - 5.20- 5.30     | D             |                             |             |                          |                                 | (TIDAL FLA)    | DEPOS     | SITS)                                      | muasion              | e and sa             | nastor                          | le   |                                  | ×                                       | ×                     | -                 |             |           |
| 5.50         E5         From 5.66m bgl: Becomes motified dark grey and clayey         X X + -           6.60         6.0         8         SPT(5) 000         8         SPT(5) 000           7.60         0         8         SPT(5) 000         8         SPT(5) 000           7.60         0         8         SPT(5) Nodo         8         SPT(5) Nodo           7.60         0         8         SPT(5) Nodo         8         SPT(5) Nodo           7.60         0         8         SPT(5) Nodo         8         SPT(5) Nodo           7.60         0         8         SPT(6) Nodo         SPT(6) Nodo         SPT(6) Nodo           8.00         8         SPT(6) Nodo         SPT(6) Nodo         SPT(6) Nodo         SPT(6) Nodo           8.00         8         SPT(6) Nodo         SPT(6) Nodo         SPT(6) Nodo         SPT(6) Nodo           8.00         8         NUME         PID = 1 Npern         From 7.50m bgl: Becomes very dense.         SPT(6) Nodo           8.00         8         PID = 1 Npern         From 9.51m to 9.95m bgl: Becomes clayey.         SPT(6) Nodo           8.00         8         PID = 1 Npern         From 9.51m to 9.95m bgl: Becomes clayey.         SPT(6) Nodo           8.00         <   |          | - 5.30- 6.00     | В             |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · · · × · · · · · · · · · · · · · · · · | · · ·× ·<br>·× · · ·  | -                 |             |           |
|  |          | _                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · . · .× .                              | · . · .× .            | -                 |             |           |
| 400         610         0<br>8         BD = 1 fgrm<br>5.05         From 5.55m bgl: Becomes motiled dark grey and clayey<br>with abundant organic material.         X         X           400         6.00         6         0         500 <td></td> <td>-5.50</td> <td>ES</td> <td></td> <td>×<br/> × .</td> <td>×<br/> × .</td> <td>-  </td> <td></td> <td></td>  |          | -5.50            | ES            |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×<br>× .                                | ×<br>× .              | -                 |             |           |
| From 5.65m bgl: Becomes metted dark grey and clayey         s         <  |          | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × · . · .                               | × · . · .<br>· · ×    | -                 |             |           |
| Out         D         PD = 1.5pon<br>5.00         Notesting         Section 2<br>(1)         Section 2<br>(2)         Sectin 2<br>(2)         Section 2<br>(2)         S   |          | -                |               |                             |             |                          |                                 | From 5.65m     | bgl: Be   | comes m                                    | ottled da            | rk grey a            | and cla                         | yey  |                                  | ×                                       | ×                     | -                 |             |           |
| = 600.6         0<br>8 371(5) 120<br>5 0.5 10         PID = 1.5ppn<br>5 0.5 10         PID = 1.5ppn<br>5 0.5 10         PID = 1.6ppn<br>7 0.0         PID = 0.4ppn         PID = 1.5ppn<br>7 0.0         PID = 1.5ppn  |          | -                |               |                             |             |                          |                                 | with abundai   | nt organ  | ic materia                                 | al.                  |                      |                                 |  |                                  | · . · .× .<br>· . · .                   | · . · .× .<br>· . · . | -                 |             |           |
| a 15 6 8.00         b         5.67 10         5.67 10           a 60 5 80         D         5.8.10         5.8.10           a 60 5 90         D         8.9 750         B           7 50 7 50         D         S         3.17 / 20 30 ml           7 50 7 50         D         S         3.17 / 20 30 ml           7 50 7 50 00         D         S         3.17 / 20 30 ml           7 50 7 50 00         S         3.17 / 20 30 ml         From 7.50m bgl: Becomes very dense.           6 8.00         B         3.17 / 20 30 ml         From 7.50m bgl: Becomes very dense.           6 8.00         ES         3.17 / 20 ml         From 7.50m bgl: Becomes very dense.           6 8.00         ES         9.10 D = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.           9 8.00 810         D         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.           9 8.00 810         D         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.           9 8.00 810         D         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.           9 8 8 9 70         D         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.           9 8 8 9 70         D         PID = 1.1ppm         PID = 1.1ppm <tr< td=""><td></td><td></td><td>D</td><td>PID = 1.5ppm<br/>SPT(S) N=29</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>: . : .× .</td><td>-  </td><td></td><td></td></tr<>  |          |                  | D             | PID = 1.5ppm<br>SPT(S) N=29 |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  |   | : . : .× .            | -                 |             |           |
| 680.690         D           680.690         D           680.750         B           750.760         D           970.770.0         B           770.770.0         B           770.770.0         D           970.770.0         B           770.770.0         D           970.770.0         B           970.770.0  |          | 6.10- 6.80       | В             | 5,5/                        |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×<br>× .                                | ×<br>                 | -                 |             |           |
| Sec. 6:00<br>6:80-6:00<br>7:00         D<br>PID = 1.5ppm           -7.50-7:00<br>7:50-7:00         B<br>PID = 1.5ppm           -7.50-7:00<br>7:50-7:00         D<br>S         SPT(5):N-50<br>7:70m           -7.50-7:00<br>7:50-7:00         D<br>S         ST(2):22:81 fr<br>7:70m           -7.50-7:00         D<br>S         From 7:50m bgl: Becomes very dense.           -8.50         ES<br>9:00         S<br>S           -9:00         B<br>S  |          | -                |               | 5,0,0,10                    |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × · . · .                               | × · . · .<br>· · ×    | _                 |             |           |
| 6.80-6.20<br>-7.00         D<br>B         BD = 1.6ppm         From 7.50m bgl: Becomes very dense.         X X X           7.80-7.00<br>7.70         D<br>SS         S12/22.20 for<br>75mm         From 7.50m bgl: Becomes very dense.         X X X           8.00         PID = 0.4ppm         From 7.50m bgl: Becomes very dense.         X X X         X X           8.00         SS         3.12/22.20 for<br>75mm         From 7.50m bgl: Becomes very dense.         X X X         X X           8.00         FID = 0.4ppm         From 9.51m to 9.95m bgl: Becomes clayey.         X X X         X X           9.00-9.70         D<br>9.70-10.50         B         From 9.51m to 9.95m bgl: Becomes clayey.         X X         X X           9.00-9.70         D<br>9.70-10.50         B         Hole Dumber         Progress         Becomes clayey.         X X           9.00-9.70         D<br>9.70-10.50         B         Hole Dumber         Progress         Becomes clayey.         X X         X X           9.70-10.50         B         Hole Dumber         Progress         Becomes clayey.         X X         X X         X X           9.70-10.50         B         Hole Dumber         Hole Dumber         Det Trop         Becomes clayey.         X X         X X         X X           Becomes clayey.         X X<  |          | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| 6 80- 6 90         D         6 80- 750         B           7 80- 700         D         SPT(S) N=50         X         X         X           7 80- 700         D         SPT(S) N=50         X         X         X           7 80- 700         B         3112 / 22.28 for<br>755mm         From 7.50m bgl: Becomes very dense.         X         X           8 80         ES         Hole Set (1)         X         X         X         X           9 40- 9.70         D         Set (1)         X         X         X         X           8 80         ES         Hole Set (1)         X         X         X         X           9 40- 9.70         D         Set (1)         X         X         X         X           9 40- 9.70         D         Set (1)         X         X         X         X           9 40- 9.70         D         Set (1)         X         X         X         X         X           9 40- 9.70         D         Set (1)         Set (1)         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X         X  |          |                  |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · . · .× .<br>·× · . · .                | ·                     | -                 |             |           |
| 6.80.6.90         D         -  |          | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | `.`.×                                   | `.`.×.                | -                 |             |           |
| - 630-100     D     -  |          |                  |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×<br>× .                                | ×<br>× .              |                   |             |           |
| -7.00         PID = 1.8ppm         PID = 1.8ppm         PID = 1.8ppm           -7.60         0         D         SPT(5) 16-50         SPT(5) 16-50           7.50         3.12 / 22.23 for<br>750mm         From 7.50m bgl: Becomes very dense.         X X X X         V           8.00         B         PID = 0.4ppm         SX X X         V         X X X         V           8.00         ES         PID = 1.1ppm         SX X X         V         X X X         V           9.00-9.70         D         SS         PID = 1.1ppm         SX X X         V         X X X         V           9.00-9.70         D         SS         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.         X X X         V           9.00-9.70         D         SS         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.         X X X         V           9.00-9.70         D         SS         PID = 1.1ppm         V         V         X X X         V           9.00-10.50         B         Imm         From 9.51m to 9.95m bgl: Becomes clayey.         X X X         V         X X X         V           9.00         1.00         Imm         Poble (m)         Poble (m)         Poble (m)         Poble (m)  |          | - 6.90- 7.50     | В             |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×<br>· · ×                              | × · . · .<br>· · ×    | _                 |             |           |
| -7.50.7.00         D         SPT(S) N-50         From 7.50m bgl: Becomes very dense.         -   |          | -7.00            |               | PID = 1.6ppm                |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | _                 |             |           |
| 7.50         D<br>SS         SPTTS1 N-50<br>ST 222.28 for<br>72mm         From 7.50m bgl: Becomes very dense.         X         X         Image: Comparison of the comparison of t   |          | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · · ·× ·<br>·× · · ·                    | · · ·× ·              | -                 |             |           |
| From 7.50         D         SPT(s) N>50           7.50         3.12/2222 for<br>7.50         From 7.50m bgl: Becomes very dense.         X         X           8.60         PID = 0.4ppm         From 7.50m bgl: Becomes very dense.         X         X         X           9.00         9.10         D         Stress very dense.         X         X         X           9.00         9.10         D         PID = 0.4ppm         X         X         X         X           9.00         9.10         D         PID = 1.1ppm         X         X         X         X         X           9.00         9.10         D         PID = 1.1ppm         X         X         X         X         X           9.00         9.10         D         PID = 1.1ppm         X  |          | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · . · .× .<br>                          | · . · .× .            | -                 |             |           |
| - 7.60         D<br>7.80         SPT(S) N=50<br>S12/2/22.8 for<br>75mm         From 7.50m bgl: Becomes very dense.         X   |          | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × · · ·                                 | ×                     |                   |             |           |
| S         3.12/22.28 for<br>750: 9.00         S         3.12/22.28 for<br>750: 9.00         From 7.50m bgt: Becomes very dense.         X         X         X           6.00         PID = 0.4ppm         From 7.50m bgt: Becomes very dense.         X  |          | -<br>            | D             | SPT(S) N>50                 |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | _                 |             |           |
| Base         Form 9.51m to 9.95m bgl: Becomes clayey.         South States         Remarks         Cr(7.33)           9.60-9.70         D         PID = 1.1ppm         From 9.51m to 9.95m bgl: Becomes clayey.         X × X + X + X + X + X + X + X + X + X +  | 022      | 7.50             | SS<br>B       | 3,12 / 22,28 for<br>75mm    |             |                          |                                 | From 7 50m     | bal: Be   | comes ve                                   | erv dense            | •                    |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| -8.00         PID = 0.4ppm         Image: Strike Str  | iber 2   | -                |               |                             |             |                          |                                 |                | bgi. Do   |  | any denied           |                      |                                 |  |                                  | · · · × ·                               | · · ·× ·              | -                 |             |           |
| B.00         PID = 0.4ppm         Image: Construction of the cons  | over     | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · . · .× .<br>                          | · . · .× .<br>· . · . | -                 |             |           |
| Note:         From 9.51m to 9.95m bgl: Becomes clayey.         Remarks         Remarks         Hole Dia Depth of Date         Time         Hole Mathematication         Remarks         Hole Dia Depth of Date         Time         Hole Mathematication         Remarks         Hole Dia Depth of Date         Time         Hole Dia Depth (m) Depth (m) Depth (m)         Remarks         Remarks         Hole Dia Depth of Date         Time         Hole Dia Depth (m) Depth (m)         Remarks         Remarks         Hole Dia Depth of Date         Time         Hole Dia Depth (m)         Dep  | 29 N     |                  |               | PID = 0.4 nnm               |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | °.∶.×.                                  | °.∶.×.                | _                 |             |           |
| 8.80     ES       -9.00-9.10     D       9.00     SS       9.00     SS       9.00-9.10     D       9.00-9.10     D       9.00-9.10     D       9.00     SS       9.00-9.10     D       Depth     Hole Diameter       Progress     Remarks       Hole (m)     Hole Diameter       Depth   | Date:    | -                |               | 110 0. ippin                |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| 8.80     ES       9.00     9.00       9.00     SS       Strike     Hole Diameter       Progress     Remarks       Uppth     Hole Dial Depth of D   | 8        | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ·× · · ·                                | × · . · .             | -                 |             |           |
| 8.80     ES       9.00     9.10       9.10     9.10       9.10     9.10       9.10     9.10       9.10     9.10       9.10     1000       1000     1000       1000     1000       1000     1000       1000     1000       1000     1000       1000     1000       1000     1000       1000     1000       1000     1000       1000     1000       10000     1000 <tr< td=""><td>1.3.G</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>×</td><td>×</td><td>-  </td><td></td><td></td></tr<>  | 1.3.G    | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| 8.80     ES       9.00     9.10       9.00     9.10       9.00     SS       9.00     SS       9.00     9.10       9.00     SS       Strike     Hole Dia Depth of<br>Depth of<br>Depth (m) Depth (m) Strates of Remeation 200 FR8.       Strike     Hole Dia Depth of Delate       02-08-2022     17.15       9.00     1.60       3.50R betweet advance droved strategin of Defator of Man 48 and 45 an  | R<br>V   | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × · · · ·                               | · × .<br>·× · . · .   | -<br>_(7.33)      |             |           |
| 8.80     ES       9.00     9.10       9.00     SS       Strike     Hole Diameter       Image: Note: Strikes     Hole Diameter       Image: Note: Strikes     Hole Diameter       Image: Note: Strike     Hole Diameter       Image: Note: Stri   | BRA      | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | `.`.×                                   | · . · .× .            | -                 |             |           |
| 9       8.80       ES<br>9.00       9.10       D<br>SS<br>9.10       PID = 1.1ppm       From 9.51m to 9.95m bgl: Becomes clayey.       Image: Since Science Scien  | 4_0 L    | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | * · · ·                                 | * · · ·               | -                 |             |           |
| 9.00-9.10<br>9.00<br>9.00<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.60<br>9.10-9.70<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.70-10.50<br>9.7 | AGS      | - 8.80           | ES            |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × · · · ·                               | ×                     | -                 |             |           |
| Strike       Hole Diameter       Progress       Remarks         02-08-2022       17:15       9.00       9.00       1.60         3.5.000 bbd       B       02-08-2022       17:15       9.00       1.60         3.5.000 bbd       Scale: 1:25       Logged By: NS       Checked By: JW  | LZN      |                  |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| 9.10-9.00       0         9.60-9.70       D         9.60-9.70       D         9.70-10.50       B         Water Strikes       Hole Diameter         Progress       Remarks         Water Strikes       Hole Diameter         Progress       Remarks         Both       O2-08-2022         17:15       9.00         9.00       1.60         3.000 mgl       2.500 mgr data         4.500 mgr data       02-08-2022         17:15       9.00         9.00       1.60         3.000 mgl       0.27m bgl and 0.42m and 4.83m ggl         4.500 mgr data       0.27m bgl and 0.42m and 4.83m ggl         4.500 mgr data       0.02m of symbols and abbreviations, see Key Sheet.   | rary:    | 9.00-9.10        | SS            | ו = י. וppm                 |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · · · × ·                               | · · ·× ·              | -                 |             |           |
| 9.60-9.70       D         9.70-10.50       B         Water Strikes       Hole Diameter         Progress       Remarks         Bepth       Hole Diameter         Strike       Flow Remarks         Hole (m)       Depth (m)         Depth (m)       Depth (m)         02-08-2022       17:15         9.00       1.60         3. SORC borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corre (SORC) borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corre (SORC) borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corre (SORC) borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corre (SORC) borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corre (SORC) borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corre (SORC) borehole advanced via Sonic diling to 15.00m bgl, and completed via Rotary corres borehole via Sonic diling to 15.00m bgl, and completed via Rotary correy is 300m bgl.         Notes; For explanation of symbols and abbreviations, see Key Sheet.       Scale: 1:25       Logged By: NS       Checked By: JW   | 2        | 9.10-9.60<br>-   | в             |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | `.`.×.<br>.×                            | · . · .× .<br>· . · · | -                 |             |           |
| 9.60-9.70       D         9.70-10.50       B         Water Strikes       Hole Diameter         Progress       Remarks         Strike       Flow Remarks         Hole Diameter       Progress         Return of Strike       Hole Diameter         Variable       Depth         Moter       Hole Diameter         Progress       Remarks         Strike       Flow Remarks         Hole Diameter       Progress         Return of Strike       Hole Diameter         Optimized       Depth         Hole Diameter       Progress         Return of Strike       Hole Diameter         Optimized       Depth         Optimized       Depth         Hole Diameter       Progress         Return of Restance of Remarks       Return of Restance of Remarks         Strike       Flow Remarks         Hole Dia       Depth of Date         Time       Hole         Depth       Depth (m)         Depth       O2-08-2022       17:15         9.00       1.60         3.00RC borehole instaled in material recovered from 0.25m to 0.27m big and 0.42m and 4.83m big No diadov where in stale of contamization.         <   | LGP.     | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × .                                     | × .                   | -                 |             |           |
| 9.60-9.70       D         9.70-10.50       B         Water Strikes       Hole Diameter         Progress       Remarks         Strike       Flow Remarks         Hole (m)       Date         Depth       Mater Strikes of Depth of Depth (m)         Upph       Depth (m)         02-08-2022       17:15         9.00       1.60         3.00/R Doervold advanced via Sonic drilling to 15.00m bgl. and completed via Rotary Corrig to 30.00m bgl.         02-08-2022       17:15         9.00       1.60         Strike For explanation of symbols and abbreviations, see Key Sheet.   | 5 LZ     | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| 9.70-10.50       B         9.70-10.50       B         Water Strikes       Hole Diameter         Progress       Remarks         Strike       Flow Remarks         Hole (m)       Depth (m)         Depth       Hole (m)         02-08-2022       17:15         9.00       1.60         3.50/RC borehole installed wared from 25m bgl. Becomes clayey.         Vater Strikes       Hole Diameter         Progress       Remarks         02-08-2022       17:15         9.00       1.60         3.50/RC borehole incided wared from 0.25m bgl. and completed via Rotary Coring to 39.00m bgl.         02-08-2022       17:15         9.00       1.60         3.50/RC borehole incided wared from 0.25m bgl. and completed via Rotary Coring to 39.00m bgl.         3.50/RC borehole incided wared from 0.25m bgl. and completed via Rotary Coring to 39.00m bgl.         0.160       Scale: 1:25         Notes: For explanation of symbols and abbreviations, see Key Sheet.       Scale: 1:25       Logged By: NS       Checked By: JW   | 1.1<br>N | - 9.60-9.70      |               |                             |             |                          |                                 | <b>.</b>       |           |  |                      |                      |                                 |  |                                  | ·× · . · .                              | × · . · .             | _                 |             |           |
| Water Strikes       Hole Diameter       Progress       Remarks         Water Strike       Flow Remarks       Hole Dia       Depth of Hole (m)       Date       Time       Hole       Casing Depth (m)       Depth (m)       Sonic/Rotary Core (SORC) borehole located in the Main Site area of Teesworks, Redcar. Located in the west of Remarks         Depth       (mm)       Hole (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Sonic/Rotary Core (SORC) borehole located in the Main Site area of Teesworks, Redcar. Located in the west of Remarks         02-08-2022       17:15       9.00       9.00       1.60       Sonic/Rotary Core (SORC) borehole advanced via Sonic drilling. 0 15.00m bgl, and completed via Rotary Coring to 39.00m bgl.         02-08-2022       17:15       9.00       9.00       1.60       Sonic/Rotary Core (SORC) borehole advanced via Sonic drilling. 0 15.00m bgl, and completed via Rotary Coring to 39.00m bgl.         02-08-2022       17:15       9.00       9.00       1.60       Sonic drilling. 0 15.00m bgl, and completed via Rotary Coring to 39.00m bgl.         02-08-2022       17:15       9.00       9.00       1.60       Sonic drilling. 0 15.00m bgl, and 0.42m and 4.83m bgl. No offactory evidence of contamination.         03-00m bgl.       Notes; For explanation of symbols and abbreviations, see Key Sheet.       Scale: 1:25       Logged By: NS       Checked By: JW <td>:: &lt;1</td> <td>- 9.70- 10.50</td> <td>В</td> <td></td> <td></td> <td></td> <td></td> <td>From 9.51m</td> <td>to 9.95</td> <td>m bgl: Be</td> <td>comes c</td> <td>layey.</td> <td></td> <td></td> <td></td> <td>×</td> <td>×</td> <td>-  </td> <td></td> <td></td>   | :: <1    | - 9.70- 10.50    | В             |                             |             |                          |                                 | From 9.51m     | to 9.95   | m bgl: Be                                  | comes c              | layey.               |                                 |  |                                  | ×                                       | ×                     | -                 |             |           |
| Water Strikes       Hole Diameter       Progress       Remarks         Bepth       Flow Remarks       Hole Dia       Depth of Depth of Depth of Depth of Depth (m)       Depth (m)       Depth (m)       Depth (m)       Strike       1. Sonic/Rotary Core (SO/RC) borehole located in the Main Site area of Teesworks, Redcar. Located in the west of Remarks         02-08-2022       17:15       9.00       9.00       1.60       Strike sont observed during drilling to 15.00m bgl, and completed via Rotary Core (SO/RC) borehole advanced via Sonic drilling.       3. SO/RC borehole advanced via Sonic drilling.       3. Sol/RC borehole advanced via Sonic drilling to 15.00m bgl, and completed via Rotary Core (SO/RC) and advanced via Sonic drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling to 15.00m bgl, and completed via Rotary Core (Solice during drilling drilling due to addition of flush water.         6. Stage encountered in meterial recovered form 0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination of 0.25m to 30.00m bgl upon completion, to allow Vertical Seismic Profiling.         Notes; For explanation of symbols and abbreviations, see Key Sheet.       Scale: 1:25       Logged By: NS       Checked By: JW  | Projec   | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | × · · ·                                 | × .                   | -                 |             |           |
| Water Strikes         Hole Diameter         Progress         Remarks           Strike         Flow Remarks         Hole Dia         Depth of<br>Hole (m)         Date         Time         Hole         Casing<br>Depth (m)         Water         1. Sonic/Retary Core (SO/RC) borehole located in the Main Site area of Teesworks,<br>Redar. Located in the west of Remediation action PR1B.           2         Burget         Survey Core (SO/RC) borehole located in the Main Site area of Teesworks,<br>(mm)         02-08-2022         17:15         9.00         9.00         1.60         Sonic/Retary Core (SO/RC) borehole located in the Main Site area of Teesworks,<br>Redar. Located in the west of Remediation action PR1B.           3         SO/RC borehole values of a sonic drilling.         SO/RC borehole values of a sonic drilling.         Sonic/Retary Core (SO/RC) borehole values of a sonic drilling.         Sonic/Retary Core (SO/RC) borehole values of a sonic drilling.           3         SO/RC borehole values of a sonic drilling.         Sonic/Retary Core (SO/RC) borehole values of a sonic drilling.         Sonic/Retary Core (SO/RC) borehole values of a sonic drilling.           4         Topography. Level Ground.         Servel of a drilling.         Sonic/Retary core of contamination.         Servel of a drilling.         Sonic/Retary Core (SO/RC) borehole values of a drilling.         Sonic/Retary core of contamination.           5         Groundwater strikes not observed during drilling due to addition of flush water.         Servertary evidence of   | 0        | -                |               |                             |             |                          |                                 |                |           |  |                      |                      |                                 |  |                                  | · . · .× .<br>· . · .                   | · . · .× .<br>· .     | -                 |             |           |
| Open Provide       From Remark S       From Deptin on Deptin on Deptin on Deptin on Determination       Date       Imme       Hole (m) Deptin (m   |          | Wate             | r Strikes     | 2                           | H           |                          | iameter                         | of Dete        | Progre    | ess  | Coolin               | Mate:                | 1 Sonia                         | Rotany Core                                      | Remar                            | ks                                      | n the Mair G          | Site area of To   | eswork      |           |
| Image: Construction of symbols and abbreviations, see Key Sheet.       9.00       9.00       1.60       granted to progress borehole via Sonic drilling.<br>3. SORC borehole via Sonic drilling.<br>3. SORC borehole via Sonic drilling to 15.00m bgl, and completed via Rotary<br>Coring to 39.00m bgl.<br>4. Topography: Level Ground.<br>5. Groundwater strikes not observed during drilling due to addition of flush water.<br>6. Slag encountered in material recovered from 0.25m to 0.27m bgl and 0.42m and 4.83m<br>bgl. No offactory evidence of contamination.<br>7. Borehole installed with an 80mm internal diameter standpipe to 30.00m bgl upon<br>completion, to allow Vertical Seismic Profiling.         Wotes; For explanation of symbols and abbreviations. see Key Sheet.       Scale: 1:25       Logged By: NS       Checked By: JW   | EHO.     | Depth            | Remark        | s                           | Hole<br>(mr | : טומ<br>ו)              | Depth (<br>Hole (n              | n)             | Ime       | Depth (m)                                  | Depth (m             | vvater<br>) Depth (m | 1) Redcar.<br>2. Buried         | Located in the                                   | e west of Rem<br>pection Pit ten | mediation Zon<br>minated at 0.          | e PR1B.<br>30m bgl on | hard stratum.     | Permiss     | ',<br>ion |
| Very Construction       4. Topography. Level Ground.         4. Topography. Level Ground.       5. Groundwater strikes not observed during drilling due to addition of flush water.         5. Groundwater strikes not observed during drilling due to addition of flush water.       6. Siag encountered in material recovered from 0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.25m to 0.27m bgl and 0.42m and 4.83m bgl. No offactory evidence of contamination.         0. Device installed with an 80mm relation.       0.25m to 0.25m to 0.27m to 0.27m to 0.00m bgl upon completion, to allow Vertical Seismic Profiling.         0. Notes: For explanation of symbols and abbreviations, see Key Sheet.       Scale: 1:25       Logged By: NS       Checked By: JW   | 50       |                  |               |                             |             |                          |                                 | 02-08-2022     | 17:15     | 9.00                                       | 9.00                 | 1.60                 | granted<br>3. SO/R<br>Coring to | to progress bo<br>C borehole ac<br>to 39.00m bol | orehole via So<br>dvanced via So | nic drilling.<br>onic drilling to       | 15.00m bgl            | , and complete    | ed via R    | otary     |
| b. Siag encountered in material recovered rom 0.25m to 0.27m bgl and 0.42m and 4.83m         b. Siag encountered in material recovered rom 0.25m to 0.25m bgl and 0.42m and 4.83m         b. Siag encountered in material recovered rom 0.25m to 0.25m bgl and 0.42m and 4.83m         b. Siag encountered in material recovered rom 0.25m to 0.25m bgl and 0.42m and 4.83m         b. Solfactory explanation of symbols and abbreviations, see Key Sheet.         Scale: 1:25       Logged By: NS         Checked By: JW  | ARD      |                  |               |                             |             |                          |                                 |                |           |  |                      |                      | 4. Topog<br>5. Grour            | graphy: Level<br>ndwater strikes                 | Ground.<br>s not observed        | d during drillin                        | g due to add          | dition of flush v | vater.      | 14.82-    |
| 0       completion, to allow Vertical Seismic Profiling.         0       completion, to allow Vertical Seismic Profiling.         0       Notes; For explanation of symbols and abbreviations, see Key Sheet.         Scale: 1:25       Logged By: NS  | IANL     |                  |               |                             |             |                          |                                 |                |           |  |                      |                      | bgl. No<br>7. Boreh             | olfactory evide                                  | ence of contain<br>with an 80mm  | nination.<br>internal diam              | eter standpi          | pe to 30.00m l    | ,∠ni anc    | 14.03III  |
| Key State     Scale: 1:25     Logged By: NS     Checked By: JW   | D:S      |                  |               |                             |             |                          |                                 |                |           |  |                      |                      | complet                         | uon, to allow V                                  | ertical Seismic                  | c Profiling.                            |                       |                   |             |           |
|  | Report   | Notes: For ex    | planatio      | n of symbols an             | d abbre     | eviatio                  | ons. see                        | Kev Sheet      | <br>  Sc  | <br>ale: 1:25                              |                      |                      | Logged                          | By: NS   |                                  | C                                       | hecked E              | sy: JW            |             |           |

| A  |  | C  | <b>ON</b>  |                      | 5th<br>2 C<br>Lee     | Floor<br>Floor<br>ity Walk<br>eds   | M  | Te<br>Fa   | el: 0113 391<br>ax: 0113 391<br>ww.aecom.c   | 6800<br>6899<br>om   | AGS                                   | Bore<br>Sheet:  | ehole   | No. F-I   | 3H12  | 0  |
|--|--|--|--|----------------------|-----------------------|-------------------------------------|--|--|--|--|---------------------------------------|---|---|---|---|--|
| Equipn<br>0.00 - 0.<br>0.30 - 14<br>15.00 - 38   | n <b>ent &amp;</b><br>30 Ins<br>5.00 So<br>9.00 Ro   | Vethod:<br>ulated Har<br>nic Drilling<br>tary Coring   | S:<br>nd Tools<br>(Hammer ID: GS10)<br>g (Hammer ID: GS10)   |                      | F<br>F                | Project<br>Project<br>Client:       | Name: Net Ze<br>Location: Rec<br>BP  | ero Teessid<br>Icar, North   | le Onshore<br>Yorkshire  | Ground In  | vestigation                           | - Front End En  | gineering [   | Design (FEED)   | Job No:<br>6067   | 8042   |
|  |  |  |  |                      | E                     | Co-ordi<br>E: 4568                  | inates:<br>367.388   |  |  | Ground   | Level (m):                            | 7.185 AOD   |   | Date Started:<br>Date Complete  | 02/08/2022<br>ed: 09/08/2   | 2<br>2022  |
| Dept   | In S<br>h  | Situ Tes<br>Sample<br>Ref &  | ting<br>Test Type  | Coring<br>TCR<br>SCR | Infor<br>FI           | N: 5254<br>mation<br>Core           | 100.960  | DES  | CRIPTION   |  |                                       |   | Reduced<br>Level<br>(m)   | Legend  | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrument  |
| (III)<br>10.00<br>10.00<br>10.00<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>10.60<br>11.10<br>11.20<br>12.00<br>12.16<br>12.00<br>12.16<br>12.50<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>12.60<br>13.50<br>13.60<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>13.50<br>15 | 10.60<br>11.10<br>11.20<br>12.00<br>12.16<br>12.40<br>12.50<br>12.60<br>13.00<br>13.60<br>13.60<br>13.60<br>13.60<br>13.60 | Type<br>D<br>SS<br>B<br>D<br>B<br>SS<br>B<br>ES<br>D<br>UT100<br>B<br>UT100<br>B<br>C<br>Strikes | and Result<br>PID = 1.1ppm<br>SPT(S) N>50<br>4,10 /<br>12,15,11,12 for<br>65mm<br>PID = 0.5ppm<br>SPT(S) N=17<br>0,3 /<br>4,4,4,5<br>75 % recovery<br>PID = 2.1ppm<br>100 % recovery<br>PID = 1.2ppm | RQD                  |                       | iamete                              | From 10.47<br>From 11.74<br>Soft locally<br>sandy silty (<br>angular to s<br>sandstone,<br>(TIDAL FLA)<br>Stiff to very<br>slightly sand<br>subrounded<br>limestone a<br>(TILL: DEVI | 7m to 10.7<br>4m bgl: Be<br>firm brow<br>CLAY with<br>subrounde<br>limestone<br><b>T DEPOS</b><br>stiff reddi<br>dy silty CL<br>d fine to c<br>nd coal. S<br><b>ENSIAN</b> | 78m bgl:<br>ecomes of<br>n mottleo<br>h abunda<br>ed fine to<br>e and che<br>SITS) | Becomes<br>Becomes<br>I black sli<br>nt organi<br>coarse c<br>rt | grey sligt<br>angular t<br>a, sandsto | velly slightly<br>I. Gravel is<br>ne,<br>htly gravelly<br>oone, chert,  | 4.98  |   |   |  |
| Strike<br>Depth<br>Depth<br>ID: StanDard   | Water<br>Flow  | Strikes<br>Remark  | is<br>Is   | Hok<br>(mn<br>194    | iole D<br>e Dia<br>n) | iamete<br>Depth<br>Hole (i<br>15.00 | r of Date<br>m)  | Time   | ess<br>Hole<br>Depth (m)   | Casing<br>Depth (m   | Water<br>Depth (m)                    | 1. Sonic/Rotary Core<br>Redcar, Located in ti<br>2. Buried Services<br>granted to progress I<br>3. SO/RC borehole a<br>Coring to 39.00m bg<br>4. Topography: Leve<br>5. Groundwater strik<br>6. Slag encountered<br>bgl. No offactory evic<br>7. Borehole installed<br>completion, to allow ' | Remail<br>(SO/RC) bore<br>he west of Rem<br>spection Pit ter<br>sorehole via So<br>dvanced via So<br>dvanced via So<br>l.<br>I Ground.<br>Is not observed<br>in material reco<br>fence of contam<br>with an 80mm<br>Vertical Seismi | KS<br>hole located in the Main<br>minated at 0.30m bgi or<br>nic drilling.<br>onic drilling to 15.00m bg<br>d during drilling due to ac<br>vered from 0.25m to 0.<br>internal diameter standp<br>c Profiling. | Site area of Te<br>hard stratum. I<br>I, and complete<br>Idition of flush w<br>27m bgl and 0.4<br>ipe to 30.00m b | esworks,<br>Permission<br>ed via Rotary<br>vater.<br>I2m and 4.83m<br>vgl upon |
| Notes:   | For ex   | planatic   | on of symbols an   | <br>d abbr           | eviatio               | ons, se                             | e Key Sheet.   | Sc   | <br>ale: 1:25  |  | L                                     | Logged By: NS   |   | Checked   | By: JW  |  |

|                            | 4=  | C  | <b>O</b>   |                     | 5th<br>2 C<br>Lee      | ECOI<br>Floor<br>City Walk<br>eds                                      | M                           | -                               | Tel: 0113 39<br>Fax: 0113 39<br>www.aecom | 1 6800<br>91 6899<br>com | AGS<br>REGISTERED USER 202 | BO  | rehole   | e No.  | F-BH  | 120  | C  |
|----------------------------|---|--|--|---------------------|------------------------|--|-----------------------------|---------------------------------|---|--------------------------|----------------------------|---|--|--|---|--|--|
| E0<br>0.00<br>0.30<br>15.0 | quipment &<br>0 - 0.30 Ins<br>0 - 15.00 So<br>00 - 39.00 Ro | Method:<br>ulated Har<br>nic Drilling<br>tary Coring | S:<br>nd Tools<br>(Hammer ID: GS10)<br>(Hammer ID: GS10)   |                     |                        | Project<br>Project<br>Client:  | Name: Ne<br>Location:<br>BP | et Zero Teessi<br>Redcar, North | ide Onshor<br>n Yorkshire                 | e Ground li              | nvestigation               | - Front End E   | ingineering [  | Design (FEE  | ED) Jo  | b No:<br>6067                              | 8042   |
|                            |   |  |  |                     |                        | Co-ordi<br>E: 4568   | nates:<br>867.388           |                                 |   | Ground                   | d Level (m):               | 7.185 AOI   | C  | Date Sta   | arted: 02/08<br>mpleted: 09   | /2022<br>9/08/2                            | 022  |
|                            | In S  | Situ Tes<br>Sample<br>Ref &                          | ting<br>Test Type  | Corin<br>TCR<br>SCR | g Infor                | mation<br>Core   | 100.960                     | DE                              | SCRIPTIO                                  | N                        |                            |   | Reduced<br>Level<br>(m)  | Lege   | end (Th<br>(n   | pth<br>ick)<br>1)                          | Backfill/<br>Instrument                          |
|                            | 5.00<br>5.00<br>6.50- 16.80<br>9.80- 20.10                  | C  | and Result<br>PID = 0.8ppm   | 93<br>0<br>0        | CLAY                   | 16.50-<br>16.50<br>16.50<br>18.00<br>18.00<br>19.50<br>19.50-<br>21.00 | From 17<br>brown.           | 7.31m to 17<br>8.85m bgl: E     | 58m bgl                                   | Become<br>gravelly.      | s firm and                 | mottled   | 12.66  |  |   |  |  |
|                            | Water<br>ike Flow<br>pth                                    | <sup>-</sup> Strikes<br>Remark                       | is is in the second sec | Ho<br>(mi           | Hole D<br>le Dia<br>m) | iamete<br>Depth<br>Hole (r   | of Date                     | Time                            | Hole<br>Depth (n                          | Casing<br>n) Depth (m    | Water<br>) Depth (m)       | 1. Sonic/Rotary C<br>Redcar. Located ii<br>2. Buried Services   | Rema<br>re (SO/RC) bore<br>the west of Rem<br>Inspection Pit ten<br>s borberter in C   | rks<br>ehole located in t<br>mediation Zone F<br>rminated at 0.30  | the Main Site are<br>PR1B.<br>Im bgl on hard st                               | a of Tee<br>ratum. F                       | esworks,<br>Permission                           |
| TID: STANDARD COF          |   |  |  |                     |                        |  |                             |                                 |   |                          |                            | granted to progres<br>3. SO/RC borehol<br>Coring to 39.00m<br>4. Topography: Le<br>5. Groundwater st<br>6. Slag encountern<br>bgl. No olfactory e<br>7. Borehole install<br>completion, to allo | is borehole via Sc<br>e advanced via S<br>bgl.<br>vel Ground.<br>rikes not observe<br>ad in material rec<br>vidence of contar<br>ad with an 80mm<br>w Vertical Seism | onic drilling.<br>ionic drilling to 15<br>d during drilling to<br>overed from 0.25<br>mination.<br>internal diamete<br>ic Profiling. | 5.00m bgl, and c<br>due to addition o<br>5m to 0.27m bgl<br>er standpipe to 3 | omplete<br>f flush w<br>and 0.4<br>0.00m b | d via Rotary<br>ater.<br>2m and 4.83m<br>gl upon |
| Nopor<br>No                | otes: For ex  | planatio   | n of symbols an  | l<br>Id abb         | reviati                | l<br>ons, se   | e Key She                   | et. S                           | l<br>Scale: 1:25                          |                          | L                          | Logged By: N  | S  | Che  | ecked By: J   | W  |  |

| ſ           | ΛΞ                                 |                            |                               | 4        | A               | ECO                | Μ                |                     | Tal: 0112 201               | 6900                 |                 | Bor  | ehole   | No. F-E  | 3H12                               | 0                           |
|-------------|------------------------------------|----------------------------|-------------------------------|----------|-----------------|--------------------|------------------|---------------------|-----------------------------|----------------------|-----------------|--|---|--|------------------------------------|-----------------------------|
|             |                                    |                            |                               |          | 2 C             | City Walk          |                  | 1                   | Fax: 0113 39<br>www.aecom.c | 1 6899<br>om         | AGS             | Sheet:   | 5 of 8  |  |                                    |                             |
| F           | Equipment &                        | Methods                    | S:                            |          |                 | Project            | Name: Net Zer    | o Teessi            | ide Onshore                 | Ground In            | vestigation     | n - Front End En   | gineering D   | Design (FEED)  | Job No:                            |                             |
|             | 0.00 - 0.30 Ins<br>0.30 - 15.00 So | ulated Han<br>nic Drilling | id Tools<br>(Hammer ID: GS10) |          |                 | Project            | Location: Redo   | ar, North           | h Yorkshire                 |                      |                 |  |   |  | 6067                               | 8042                        |
|             | 15.00 - 39.00 Ro                   | tary Coring                | (Hammer ID: GS10)             |          |                 | Client:<br>Co-ordi | nates:           |                     |                             | Ground               | Level (m)       | :  |   | Date Started:  | )2/08/2022                         | 2                           |
|             |                                    |                            |                               |          |                 | E: 4568<br>N: 5254 | 67.388<br>00.960 |                     |                             |                      |                 | 7.185 AOD  |   | Date Complete  | d: 09/08/2                         | 022                         |
|             | In S                               | Situ Test                  | ting                          | Coring   | g Infor         | mation             |                  | DE                  | SCRIPTION                   |                      |                 |  | Reduced<br>Level                                      | Legend   | Depth<br>(Thick)                   | Backfill/<br>Instrument     |
|             | Depth<br>(m)                       | Ref &<br>Type              | Test Type<br>and Result       | SCR      | FI              | Core<br>Run        |                  | DE                  |                             | •                    |                 |  | (m)   | Legend   | (m)                                |                             |
| F           | 20.00- 20.10<br>-                  | ËS                         |                               |          |                 |                    | fine to coars    | e of mu             | udstone. S                  | and is fin<br>ATION) | e to coar       | se   |   | ······································                                 | -                                  |                             |
| -           | -                                  |                            |                               | 100<br>0 |                 |                    | (                |                     |                             |                      |                 |  |   |  | -                                  |                             |
| ļ           | -                                  |                            |                               | 0        |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| ┝           | _                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   | <u> </u>   | (1.50)                             |                             |
|             | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   | <br>   | - (1.00)                           |                             |
| +           | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| t           | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
|             | -                                  |                            |                               |          |                 | 21.00-<br>22.50    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| t           | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| -           | -                                  |                            |                               |          | 0<br>NI         |                    | Very weak lo     | cally w             | eak fractu                  | red thinly           | to thickl       | y laminated  | -14.16  |  | - 21.34                            |                             |
| Ē           | -                                  |                            |                               |          | 8               |                    | closely space    | ed, sub             | horizonta                   | l to 20°, p          | lanar ro        | ugh, partly  |   |  |                                    |                             |
| -           | -                                  |                            |                               | 100      | 0               |                    | subangular t     | o subro             | bunded fin                  | e to medi            | um of m         | udstone.   |   |  | -                                  |                             |
|             | -                                  |                            |                               | 64       | CLAY            |                    | planar rough     | to smc              | both, tight                 | to closed            | infilled        | with grey silt   |   |  |                                    |                             |
|             |                                    | С                          |                               |          |                 |                    | (REDCAR M        |                     |                             |                      |                 |  |   |  | _                                  |                             |
| -           | -                                  |                            |                               |          | 5               |                    | Sand is fine     | n to 21<br>to coars | .84m bgl:<br>se             | Stiff dark           | grey sar        | ndy CLAY.  |   |  | -                                  |                             |
|             | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| ŀ           | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| 022         | -                                  |                            |                               |          | NI              | 22.50-<br>24.00    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| mber 2      | -                                  |                            |                               |          | 2               |                    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| Nove        | -                                  |                            |                               |          | 2               |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| ate: 29     | -                                  |                            |                               |          | NI              |                    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
|             | -<br>_ 23.18                       | С                          |                               | 100      |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| 1.3.G       | -                                  |                            |                               | 89       | 4               |                    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| ARY         | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
|             | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  | -                                  |                             |
| GS 4        | -                                  |                            |                               |          | CLAY            |                    | From 22 71       | to 22 7             | '8m hal· S                  | iff dark a           |                 |  |   |  |                                    |                             |
| NZT A       | -                                  |                            |                               |          | 9               |                    | Sand is fine     | to coars            | se.                         | an uaik y            | Sy Sanu         |  |   |  |                                    |                             |
| brary: .    | -                                  |                            |                               |          |                 | 24.00-<br>25.50    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
|             | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| 5           | -                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
|             | _                                  |                            |                               |          |                 |                    |                  |                     |                             |                      |                 |  |   |  | $\vdash$                           |                             |
| ίζ<br>11.   | -                                  |                            |                               | 98       |                 |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| Projec      | -                                  |                            |                               | 98<br>95 | 4               |                    |                  |                     |                             |                      |                 |  |   |  |                                    |                             |
| LOG         | -<br>                              | 01."                       |                               |          |                 |                    |                  |                     |                             |                      |                 | 1  |   |  |                                    |                             |
|             | Strike Flow                        | Strikes<br>Remark          | (S                            | Hol      | lole D<br>e Dia | Depth              | r<br>of Date     | Progi<br>Time       | Hole                        | Casing               | Water           | 1. Sonic/Rotary Core<br>Redcar. Located in t                           | Reman<br>(SO/RC) bore<br>ne west of Rem               | KS<br>hole located in the Main<br>nediation Zone PR1B.                 | Site area of Tee                   | esworks,                    |
| CRE<br>CORE | Depth                              |                            |                               | (mn      | 1)              | Hole (r            | 03-08-2022       | 17:15               | 22.50                       | epth (m) 15.00       | epth (m<br>1.00 | 2. Buried Services In<br>granted to progress I<br>3. SO/RC borehole a  | spection Pit ter<br>porehole via So<br>dvanced via So | minated at 0.30m bgl on<br>nic drilling.<br>onic drilling to 15.00m bg | hard stratum. F<br>I, and complete | Permission<br>ed via Rotary |
|             |                                    |                            |                               |          |                 |                    |                  |                     |                             |                      |                 | Coring to 39.00m bg<br>4. Topography: Leve<br>5. Groundwater strik     | Ground.<br>es not observed                            | during drilling due to ad  | dition of flush w                  | ater.                       |
| STAND       |                                    |                            |                               |          |                 |                    |                  |                     |                             |                      |                 | b. Siag encountered<br>bgl. No olfactory evid<br>7. Borehole installed | In material reco<br>lence of contant<br>with an 80mm  | overed from 0.25m to 0.2<br>nination.<br>internal diameter standpi     | rm bgi and 0.4<br>pe to 30.00m b   | ∠m and 4.83m<br>gl upon     |
| 10:2        |                                    |                            |                               |          |                 |                    |                  |                     |                             |                      |                 | Completion, to allow   | v er ucer ƏelSMİ                                      | o r rommig.  |                                    |                             |
| Repo        | Notes: For ex                      | planatio                   | n of symbols an               | d abbr   | eviati          | ons, se            | e Key Sheet.     | S                   | Scale: 1:25                 | •                    |                 | Logged By: NS  |   | Checked E  | By: JW                             |                             |

|   | A   | =(                                       | CON  |                               | 5th<br>2 C<br>Lee  | Floor<br>ity Walk                  | Λ  | Te<br>Fa<br>W   | el: 0113 391<br>ax: 0113 391<br>ww.aecom.c | 6800<br>6899<br>om  | AGS  |   | Bore   | hole   | No. F-E  | 3H12(   | C                                     |
|---|---|--|--|-------------------------------|--|------------------------------------|--|---|--|---|--|---|--|--|--|---|---------------------------------------|
|   | Equipme<br>0.00 - 0.30<br>0.30 - 15.00  | nt & Metho<br>Insulated I<br>Sonic Drill | ods:<br>land Tools<br>ng (Hammer ID: GS10) |                               | F  | Project  <br>Project               | Name: Net Ze<br>_ocation: Red  | ero Teessid<br>Icar, North `  | le Onshore<br>Yorkshire                    | Ground In   | vestigation  | n - Front I   | End Eng  | ineering D   | esign (FEED)   | Job No:<br>60678  | 8042                                  |
|   | 15.00 - 39.00   | ) Rotary Co                              | ing (Hammer ID: GS10)                      |                               |  | Client: E                          | 3P   |   |  | Ground  | Level (m):   | :   |  |  | Date Started: (  | )2/08/2022  |                                       |
|   |   |  |  |                               | E  | E: 4568<br>N: 5254                 | 67.388<br>00.960   |   |  |   | ()   | 7.185   | AOD  |  | Date Complete  | d: 09/08/2  | 022                                   |
|   | Depth<br>(m)  | In Situ To<br>Samp<br>Ref                | esting<br>le<br>& Test Type                | Corino<br>TCR<br>SCR          | lnfor<br>Fl  | mation<br>Core<br>Run              |  | DES   | CRIPTION                                   |   |  |   |  | Reduced<br>Level<br>(m)  | Legend   | Depth<br>(Thick)<br>(m)                                 | Backfill/<br>Instrument               |
|   | (***)<br>   | Typ.                                     |  | 100<br>97<br>92               | CLAY<br>7<br>CLAY<br>2   | 25.50-<br>27.00<br>27.00-<br>28.50 | From 25.80<br>Sand is fine   | ) to 25.84<br>to coarse   | lm bgl: Fil                                | rm dark g   | rey sand   | ły CLAY   | 7.   |  |  |   |                                       |
| 3RARY V1.3.GLB    Date: 29 November 2022                              | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | с  |  | 100<br>94<br>84               | CLAY<br>0<br>CLAY<br>5   | 28.50-                             | From 27.56<br>Sand is fine<br>From 27.74<br>Sand is fine                         | to 27.60<br>to coarse<br>to 27.79<br>to coarse  | 0m bgl: St<br>e.<br>0m bgl: St<br>e.       | iff dark gi   | rey sand   | y CLAY  | ,<br>,<br>,  |  |  |   |                                       |
| COREHOLE LOG    Project: V11.1 NZI GI.GPJ    LIDRARY: NZI AGS 4_0 LIE | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | Vater Strik                              | es   | 98<br>84<br>74<br>Holo<br>(mr | CLAY<br>12<br>CLAY<br>3<br>CLAY<br>2<br>CLAY<br>2<br>Iole D<br>e Dia<br>n) | iameter<br>Depth of<br>Hole (n     | From 28.61<br>sandy CLA<br>of mudstone<br>From 28.93<br>sandy CLA<br>mudstone. S | to 28.76<br>C Gravel<br>Sand is<br>to 28.99<br>C Gravel<br>Sand is fin<br>Progree<br>Time | ess<br>Hole<br>Depth (m)                   | rm dark g<br>r to subro<br>oarse.<br>rm dark g<br>r-subrour<br>rse. | rey grav,<br>bunded fi<br>rey grav,<br>nded fine<br>Water<br>Depth (m) | elly slig<br>ine to c<br>elly slig<br>e to coa  | htly<br>oarse<br>htly<br>rse of<br>otary Core (<br>ocated in the<br>services Insp<br>progress be<br>borehole ad  | Remari<br>SO/RC) borer<br>west of Rem<br>vection PIt terr<br>rehole via Sor<br>vanced via So     | KS<br>Cole located in the Main in<br>diation Zone PR 18.<br>minated at 0.30m bgl on<br>ic drilling, to 15.00m bg |   | sworks,<br>termission<br>d via Rotary |
| ort ID: STANDARD (  |   |  |  |                               |  |                                    |  |   |  |   |  | Coring to 3<br>4. Topogra<br>5. Groundv<br>6. Slag end<br>bgl. No olfa<br>7. Borehold<br>completion | 89.00m bgl.<br>aphy: Level (<br>water strikes<br>countered in<br>actory evide<br>e installed w<br>h, to allow Vo | Ground.<br>s not observed<br>material reco<br>nce of contam<br>rith an 80mm i<br>ertical Seismic | during drilling due to ad<br>vered from 0.25m to 0.2<br>ination.<br>Iternal diameter standpi<br>Profiling.       | dition of flush w.<br>7m bgl and 0.4:<br>pe to 30.00m b | ater.<br>2m and 4.83m<br>gl upon      |
| ě<br>ř  | Notes: Fo   | or explana                               | tion of symbols ar                         | nd abbr                       | eviatio  | ons, see                           | e Key Sheet.   | Sc  | ale: 1:25                                  |   | l  | Logged B  | y: NS  |  | Checked E  | by: JVV   |                                       |

| Λ                     |                       |                           | <b>N</b>                              | A                 | <b>A</b><br>5th   | ECO<br>Floor              | М                          | т                     | el: 0113 391               | 6800                    |                           |   | Bore   | ehole  | No. F   | -BH12                                   | 0                       |
|-----------------------|-----------------------|---------------------------|---------------------------------------|-------------------|-------------------|---------------------------|----------------------------|-----------------------|----------------------------|-------------------------|---------------------------|---|--|--|---|---|-------------------------|
|                       |                       |                           |                                       |                   | 2 C<br>Lee<br>LS  | ity Walk<br>eds<br>11 9AR |                            | F                     | ax: 0113 391<br>ww.aecom.c | 1 6899<br>som           | AGS<br>REGISTERED USER 20 | 8<br>1022 S   | Sheet: 7   | 7 of 8   |   |   |                         |
| Equipr<br>0.00 - 0    | nent & N<br>.30 Insu  | Aethods                   | :<br>d Tools                          |                   |                   | Project<br>Project        | Name: Net Zer              | o Teessic             | le Onshore                 | Ground In               | vestigation               | n - Front E   | End Eng  | ineering D                                       | esign (FEED)  | Job No                                  | 20040                   |
| 0.30 - 1<br>15.00 - 3 | 5.00 Son<br>9.00 Rota | ic Drilling<br>ary Coring | Hammer ID: GS10)<br>(Hammer ID: GS10) |                   |                   | Client:                   | BP                         | ar, norur             | TURSTILE                   |                         |                           |   |  |  |   | 0007                                    | 0042                    |
|                       |                       |                           |                                       |                   |                   | Co-ordi<br>E: 4568        | nates:<br>67.388           |                       |                            | Ground                  | Level (m):                | :<br>7.185  | AOD  |  | Date Started  | I: 02/08/202                            | 2                       |
|                       | In S                  | itu Test                  | ing                                   | Corin             | g Infor           | N: 5254<br>mation         | 100.960                    |                       |                            |                         |                           |   |  | Reduced  | Date Comple   | Depth                                   | Backfill/               |
| Dept<br>(m)           | th <sup>8</sup>       | Sample<br>Ref &<br>Type   | Test Type<br>and Result               | TCR<br>SCR<br>ROD | FI                | Core<br>Run               |                            | DES                   | SCRIPTION                  | 1                       |                           |   |  | (m)  | Legend  | (Thick)<br>(m)                          | Instrumen               |
| 30.00-                | 31.50                 | Č                         |                                       |                   | CLAY              | 30.00-<br>31.50           |                            |                       |                            |                         |                           |   |  |  |   | (17.66)                                 |                         |
| L                     |                       |                           |                                       |                   | 4                 |                           | From 30.05<br>Sand is fine | to 30.10<br>to coars  | )m bgl: St<br>.e.          | tiff dark g             | rey sand                  | y CLAY  | -  |  |   |   |                         |
| - 30.41               |                       | с                         |                                       |                   | CLAY              |                           | _                          |                       |                            |                         |                           |   |  |  |   |   |                         |
| F                     |                       |                           |                                       |                   | 0                 |                           | From 30.37<br>Sand is fine | to 30.41<br>to coars  | lm bgl: St<br>e.           | tiff dark g             | rey sand                  | y CLAY  |  |  |   |   |                         |
| -                     |                       |                           |                                       | 100<br>84         | CLAY              |                           | From 30.63                 | to 30.72              | 2m bgl: Fi                 | rm dark g               | grey grav                 | elly slig   | hlty   |  |   |   |                         |
| F                     |                       |                           |                                       | 81                | 0                 |                           | sandy CLAY<br>of mudstone  | . Gravel<br>. Sand is | is angula<br>s fine to c   | ar to subr<br>coarse.   | ounded fi                 | ine to c  | oarse  |  |   |   |                         |
| F                     |                       |                           |                                       |                   | NII.              |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| F                     |                       |                           |                                       |                   | INI               |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| F                     |                       |                           |                                       |                   | 10                |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
|                       |                       |                           |                                       |                   | CLAY              | 31.50-                    |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| -                     |                       |                           |                                       |                   | 0<br>CLAY         | 00.00                     | From 31.57                 | to 31.59              | )m bgl: Fi                 | rm dark ç               | grey sand                 | dy CLAY   | <i>(</i> .   |  |   |   |                         |
| -                     |                       |                           |                                       |                   |                   |                           | From 31.73                 | to 31.76              | o.<br>Sm bal: Fi           | rm dark o               | arev sand                 | dv CLAY   | (.   |  |   |   |                         |
| F                     |                       |                           |                                       |                   | 0                 |                           | Sand is fine               | to coars              | e.                         | · · · ·                 | , ,                       | <b>y</b> -  |  |  |   |   |                         |
| -                     |                       |                           |                                       | 100<br>77         | NI                |                           | From 31.88<br>sandy CLAY   | to 32.00<br>Gravel    | )m bgl: Fi<br>is angula    | rm dark (<br>ar to subr | grey grav<br>ounded fi    | elly slig   | htly<br>oarse  |  |   |   |                         |
| Ę                     |                       |                           |                                       | 62                | 11                |                           | of mudstone                | . Sand is             | s fine to c                | oarse.                  |                           |   |  |  |   |   |                         |
| 22                    |                       |                           |                                       |                   | NI                |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| 1<br>1                |                       |                           |                                       |                   |                   |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| Noven                 |                       |                           |                                       |                   | 2                 |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| ate: 29               |                       |                           |                                       |                   |                   | 33.00-                    |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
|                       |                       |                           |                                       |                   | 0                 | 34.50                     |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| 1.3.0                 |                       |                           |                                       |                   | CLAY              |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| BRARY                 |                       |                           |                                       |                   |                   |                           | From 33.36<br>Sand is fine | to 33.39<br>to coars  | )m bgl: St<br>e.           | tiff dark g             | rey sand                  | y CLAY  |  |  |   |   |                         |
| 33.72                 |                       | с                         |                                       | 96<br>84          | 4                 |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| T AGS                 |                       |                           |                                       | 69                | CLAY              |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
| ary: NZ               |                       |                           |                                       |                   | 0<br>CLAY         |                           | From 33.87 fine to coars   | to 33.91<br>e         | lm bgl: da                 | ark grey s              | andy CL                   | AY. Sar   | nd is  |  |   |   |                         |
|                       |                       |                           |                                       |                   | 5                 |                           | From 33.98                 | to 34.04              | Im bgl: St                 | tiff dark g             | rey sand                  | y CLAY  |  |  |   |   |                         |
| GI.GP                 |                       |                           |                                       |                   | 0<br>CLAY         |                           | Sand is fine               | to coars              | e.                         | -                       |                           | -   |  |  |   |   |                         |
| - I NZT               |                       |                           |                                       |                   | 0<br>CLAY<br>CLAY | 34.50-                    | From 34.23<br>Sand is fine | to 34.28<br>to coars  | βm bgl: St<br>e.           | tiff dark g             | rey sand                  | y CLAY  |  |  |   | -                                       |                         |
| ict: V11              |                       |                           |                                       |                   | 0<br>CLAY<br>7    | 36.00                     |                            |                       |                            |                         |                           |   |  |  |   | <b></b>                                 |                         |
| Proje                 |                       |                           |                                       |                   | CLAY              |                           |                            |                       |                            |                         |                           |   |  |  |   |   |                         |
|                       | Water                 | Strikes                   |                                       |                   | lole D            | )<br>iamete               | r                          | Progre                | ess                        |                         |                           |   |  | Remar  | ks  |   |                         |
| TOH<br>Depth          | Flow F                | Remark                    | S                                     | Hol<br>(mr        | e Dia<br>n)       | Depth<br>Hole (I          | of Date<br>n)              | Time                  | Hole<br>Depth (m)          | Casing<br>) Depth (m    | Water<br>) Depth (m)      | 1. Sonic/Ro<br>Redcar. Lo<br>2. Buried S              | otary Core<br>ocated in the<br>Services Ins              | (SO/RC) bore<br>e west of Rem<br>pection Pit ten | hole located in the M<br>lediation Zone PR1B<br>minated at 0.30m bg | ain Site area of Te<br>on hard stratum. | eesworks,<br>Permission |
| SD COF                |                       |                           |                                       |                   |                   |                           | 04-08-2022                 | 17:00                 | 34.50                      | 34.50                   | 1.20                      | granted to<br>3. SO/RC I<br>Coring to 3<br>4. Topogra | progress bo<br>borehole ac<br>39.00m bgl.<br>aphy: Level | prenole via So<br>Ivanced via So<br>Ground.      | nic aniling.<br>onic drilling to 15.00m                             | bgl, and complet                        | ed via Rotary           |
| ANDAF                 |                       |                           |                                       |                   |                   |                           |                            |                       |                            |                         |                           | 5. Groundv<br>6. Slag end<br>bgl. No olfa             | water strikes<br>countered in<br>actory evide            | s not observed<br>material reco                  | I during drilling due to<br>wered from 0.25m to<br>nination.        | addition of flush<br>0.27m bgl and 0.   | water.<br>42m and 4.83m |
| ID: ST                |                       |                           |                                       |                   |                   |                           |                            |                       |                            |                         |                           | completion  | n, to allow V  | ertical Seismi                                   | n remai diameter star<br>c Profiling.                               | արրե լո 20.00m                          | ngi aholi               |
| Notes:                | For exp               | olanatio                  | n of symbols ar                       | nd abbr           | eviati            | <br>ons, se               | e Key Sheet.               | So                    | <br>cale: 1:25             | I                       |                           | Logged By   | y: NS  |  | Checke  | d By: JW                                |                         |

| [        | ΛΞ                                 |             |                              | 4              | Α                 | ECO                                   | M  |   | Bore  | ehole   | No. F-E  | 3H12                                | C                     |
|----------|------------------------------------|-------------|------------------------------|----------------|-------------------|---------------------------------------|--|---|---|---|--|-------------------------------------|-----------------------|
|          | A=                                 |             | UN                           |                | 5th<br>2 C<br>Lee | I Floor<br>City Walk<br>eds<br>11 0∆₽ | Tel: 0113 391<br>k Fax: 0113 391<br>www.aecom.co | 6800<br>6899<br>om  | Sheet: 8  | 3 of 8  |  |                                     |                       |
| ľ        | Equipment &                        | Methods     | :                            |                |                   | Project                               | Name: Net Zero Teesside Onshore                  | Ground Investigation - Fr   | ront End Eng  | ineering D                                      | esign (FEED)   | Job No:                             |                       |
|          | 0.00 - 0.30 In:<br>0.30 - 15.00 Sc | ulated Han  | d Tools<br>(Hammer ID: GS10) |                |                   | Project                               | Location: Redcar, North Yorkshire                |   |   |   |  | 6067                                | 8042                  |
|          | 15.00 - 39.00 Ro                   | tary Coring | (Hammer ID: GS10)            |                |                   | Client:<br>Co-ordi                    | BP<br>inates:                                    | Ground Level (m):   |   |   | Date Started: (  | )2/08/2022                          |                       |
|          |                                    |             |                              |                |                   | E: 4568<br>N: 5254                    | 867.388<br>400.960                               | 7.1   | 185 AOD   |   | Date Complete  | d: 09/08/2                          | 022                   |
|          | In                                 | Situ Test   | ing                          | Corin          | g Infoi           | rmation                               |  |   |   | Reduced<br>Level                                | Lanand   | Depth<br>(Thick)                    | Backfill/             |
|          | Depth<br>(m)                       | Ref &       | Test Type<br>and Result      | SCR            | FI                | Core<br>Run                           | DESCRIPTION                                      |   |   | (m)   | Legend   | (m)                                 |                       |
| ļ        | 35.00<br>-                         | Č           |                              |                | 8                 |                                       |  |   |   |   |  | _                                   |                       |
| ŀ        | -                                  |             |                              | 98<br>83       | CLAY              | -                                     |  |   |   |   |  | -                                   |                       |
| ļ        | -                                  |             |                              | 79             | 9                 |                                       |  |   |   |   |  |                                     |                       |
| +        | _                                  |             |                              |                | CLAY              | -                                     |  |   |   |   |  | -                                   |                       |
| ŀ        | -                                  |             |                              |                |                   | 1                                     |  |   |   |   |  | -                                   |                       |
| ļ        | -                                  |             |                              |                | 11                |                                       |  |   |   |   |  | -                                   |                       |
| -        | -                                  |             |                              |                |                   |                                       |  |   |   |   |  | -                                   |                       |
| ľ        | -                                  |             |                              |                | CLAY              | 36.00-                                |  |   |   |   |  | _                                   |                       |
| -        | -                                  |             |                              |                | 3                 | 57.50                                 |  |   |   |   |  | -                                   |                       |
| ł        | -                                  |             |                              |                | NI                | -                                     |  |   |   |   |  | -                                   |                       |
| ļ        | _                                  |             |                              |                | 12                | 1                                     |  |   |   |   |  | -                                   |                       |
|          | -                                  |             |                              |                | CLAY              | -                                     |  |   |   |   |  | -                                   |                       |
| ļ        | -                                  |             |                              | 97<br>84<br>53 | 0<br>NI           | -                                     | From 36.62m to 36.65m bgl: I                     | Firm dark grey sandy  | CLAY.   |   |  |                                     |                       |
| -        | -                                  |             |                              | 00             | 5                 |                                       | Sand is line to coarse.                          |   |   |   |  | -                                   |                       |
| ł        | _                                  |             |                              |                | CLAY              |                                       | From 36 96m to 37 03m bal.                       | Firm dark grev sandv  |   |   |  | -                                   |                       |
| ļ        | -                                  |             |                              |                | 3                 |                                       | Sand is fine to coarse.                          | inin dank groy sandy  | 02/11   |   |  | -                                   |                       |
| -        | -                                  |             |                              |                | CLAY              | -                                     |  |   |   |   |  | -                                   |                       |
| ļ        | -                                  |             |                              |                | 0                 |                                       | From 37.34m to 37.37m bgl: 5                     | Stiff dark grey sandy   | CLAY.   |   |  | -                                   |                       |
| 2022     | -                                  |             |                              |                | NI                | 37.50-<br>39.00                       | Sand is fine to coarse.                          |   |   |   |  | -                                   |                       |
| smber    | - 37.70<br>-                       | С           |                              |                |                   | 1                                     |  |   |   |   |  | -                                   |                       |
| 9 Nov    | -                                  |             |                              |                |                   |                                       |  |   |   |   |  | -                                   |                       |
| ate: 2   | -                                  |             |                              |                | 6                 |                                       | fragments present.                               | Abundant shells and   | shell   |   |  | _                                   |                       |
| <br>9_   | -                                  |             |                              | 98             |                   |                                       |  |   |   |   |  | -                                   |                       |
| 1.3.G    | -                                  |             |                              | 71             |                   |                                       |  |   |   |   |  | -                                   |                       |
| ARY \    | -                                  |             |                              |                | CLAY              | -                                     |  |   |   |   |  | _                                   |                       |
| LIBR     | -                                  |             |                              |                |                   |                                       |  |   |   |   |  | -                                   |                       |
| S 4 0    | -                                  |             |                              |                | 2                 |                                       | From 38.59m to 38.96m bgl: /                     | Abundant shells and   | shell   |   |  |                                     |                       |
| IZT AG   | -                                  |             |                              |                |                   |                                       |  |   |   |   |  | -                                   |                       |
| rary: N  | _                                  |             |                              |                | NI                |                                       |  |   |   | -31.82 <b>[</b>                                 |  | 39.00                               |                       |
| ll Libr  |                                    |             |                              |                |                   |                                       |  |   |   |   |  |                                     |                       |
| SI.GPJ   |                                    |             |                              |                |                   |                                       | End of Boreh                                     | ole 39.00 m   |   |   |  |                                     |                       |
| NZT (    |                                    |             |                              |                |                   |                                       | not pro  | ven)  |   |   |  |                                     |                       |
| V11.1    |                                    |             |                              |                |                   |                                       |  |   |   |   |  |                                     |                       |
| oject: / |                                    |             |                              |                |                   |                                       |  |   |   |   |  |                                     |                       |
| GIIP     |                                    |             |                              |                |                   |                                       |  |   |   |   |  |                                     |                       |
| ЙЦ       | Wate                               | r Strikes   |                              |                | lole C            | l<br>Diamete                          | Progress   |   |   | Remar   | ks   | 24-21-27                            |                       |
| SEHOL    | Strike Flow<br>Depth               | Remark      | s                            | Hol<br>(mr     | e Dia<br>n)       | Depth<br>Hole (                       | m) Time Hole Depth (m)                           | Casing Water <sup>1. S</sup><br>Depth (m) Depth (m) <sup>2. B</sup> | onic/Rotary Core<br>Icar. Located in the<br>uried Services Ins                      | SO/RC) boreh<br>west of Rem<br>pection Pit terr | nore located in the Main s<br>ediation Zone PR1B.<br>ninated at 0.30m bgl on | ыте area of Tee<br>hard stratum. F  | esworks,<br>ermission |
| D COF    |                                    |             |                              | 146            | 6                 | 39.00                                 | 05-08-2022 12:30 39.00                           | 39.00 1.20 gran<br>3. S<br>Cori                                     | Net to progress be<br>O/RC borehole ac<br>ing to 39.00m bgl.                        | prenole via Sor<br>Ivanced via So<br>Ground     | nic arilling.<br>nic drilling to 15.00m bg                                   | l, and complete                     | d via Rotary          |
| NDAR     |                                    |             |                              |                |                   |                                       |  | 4. 1<br>5. G<br>6. S  | opography: Level<br>proundwater strikes<br>lag encountered in<br>No olfactory evide | s not observed<br>material reco                 | during drilling due to ad<br>vered from 0.25m to 0.2                         | dition of flush w<br>7m bgl and 0.4 | ater.<br>2m and 4.83m |
| STA      |                                    |             |                              |                |                   |                                       |  | 7. B<br>Com   | orehole installed v<br>pletion, to allow V  | vith an 80mm i<br>ertical Seismic               | nternal diameter standpi<br>Profiling.                                       | pe to 30.00m b                      | gl upon               |
| ort ID   |                                    |             |                              |                |                   |                                       |  |   |   |   | Observer   | D IVA/                              |                       |
| Я.<br>В  | Notes: For ex                      | planatio    | n of symbols an              | d abbr         | eviati            | ons, se                               | ee Key Sheet.                                    | Logg  | jeu dy: NS  |   | Checked E  | by. JVV                             |                       |

| ΛΞ  |  |  |                   | AE<br>5th                    |                                     | N   | т   | el: 0113 391               | 6800                        |                           |  | Bore  | ehole  | No. F-E   | 3H10  | 2  |
|---|--|--|-------------------|------------------------------|-------------------------------------|---|---|----------------------------|-----------------------------|---------------------------|--|---|--|---|---|--|
|   |  |  |                   | 2 Ci<br>Lee<br>LS1           | ty Walk<br>ds<br>1 9AR              |   | Fi<br>W   | ax: 0113 391<br>ww.aecom.c | 6899<br>om                  | AGS<br>REGISTERED USER 20 | 9<br>1022  | Sheet: 1  | of 8   |   |   |  |
| Equipment &<br>0.00 - 0.90 So<br>0.90 - 1.00 In<br>1.00 - 16.50 S | Method<br>onic Drilling<br>nsulated Har<br>onic Drilling | S:<br>(Hammer ID: GS10)<br>nd Tools<br>(Hammer ID: GS10) |                   | F                            | 'roject I<br>'roject I<br>Client: I | Name: Net Zero <sup>·</sup><br>Location: Redcar<br>BP | Teessid   | le Onshore<br>Yorkshire    | Ground In                   | <i>i</i> estigation       | ı - Front∣   | End Engi  | ineering [   | Design (FEED)   | Job No:<br>6067   | 8042   |
| 16.50 - 39.00 R   | otary Coring   | g (Hammer ID: GS10)                                      |                   | C<br>E                       | co-ordir<br>: 4568                  | nates:<br>86.025                                      |   |                            | Ground                      | Level (m):                | 9.088  | AOD   |  | Date Started: (   | 08/09/202:<br>d: 20/09/2  | 2<br>2022  |
| In  | Situ Tes   | ting   | Coring            | Inforr                       | 1: 52574<br>mation                  | 46.644  |   |                            |                             |                           |  |   | Reduced  |   | Depth<br>(Thick)  | Backfil  |
| Depth<br>(m)  | Sample<br>Ref &  | Test Type<br>and Result                                  | TCR<br>SCR<br>ROD | FI                           | Core<br>Run                         |   | DES   | SCRIPTION                  |                             |                           |  |   | (m)  | Legend  | (m)   | Insuume  |
| -   |  |  |                   |                              |                                     | MADE GROUI<br>(MADE GROUI                             | ND: Da<br>ND)   | ark grey A                 | SPHALT                      |                           |  |   | 8.79   |   | (0.30)<br>0.30  |  |
| -   |  |  |                   |                              |                                     | MADE GROUI<br>(MADE GROUI                             | ND: Gr<br><b>ND)</b>  | rey CONC                   | CRETE                       |                           |  |   |  |   | -<br>(0.50)<br>-  | 0///0  |
|   | FS   |  |                   |                              |                                     | MADE GROUI<br>to coarse GRA                           | ND: Gr  | rey subro<br>of slag wit   | unded to<br>h high co       | subangu<br>bble con       | ular med<br>itent. Cr  | dium<br>obbles  | 8.29   |   | -<br>_ 0.80<br>-  | Н  |
|   | LJ   |  |                   |                              |                                     | N.B. Sulphur a<br>noted.<br>(MADE GROU                | and iron<br>ND)   | n stained                  | cobbles                     | <i>w</i> ith sulp         | hurous   | odour   |  |   | -<br>-<br>-   | I  |
|   | ES   |  |                   |                              |                                     |   |   |                            |                             |                           |  |   |  |   | -<br>-<br>-<br>-  | I  |
|   | ES   |  |                   |                              |                                     |   |   |                            |                             |                           |  |   |  |   | -<br>-<br>-<br>(3.35)   | I  |
|   |  |  |                   |                              |                                     |   |   |                            |                             |                           |  |   |  |   | -<br>-<br>-   | I  |
|   | В  |  |                   |                              | ,                                   | From 3.00m b<br>sampling.                             | igl: Ma   | aterial too                | coarse fo                   | or enviror                | nmenta   | ıl  |  |   | -<br>-<br>-   | Ι  |
| -<br> -<br> -   |  |  |                   |                              |                                     |   |   |                            |                             |                           |  |   |  |   |   | I  |
|   |  |  |                   |                              |                                     |   |   |                            |                             |                           |  |   |  |   | -   |  |
| = 4.20  | ES   | PID = 0.9ppm   |                   |                              |                                     | MADE GROUI<br>subangular fin<br>to coarse             | ND: Blue of the second | ueish gre<br>barse GR/     | y sandy s<br>AVEL of ध      | ilty angu<br>slag. San    | lar to<br>nd is me   | edium   | 4.94   |   | 4.15<br>-<br>- (0.35)   | Н  |
| <b>4.50-</b> 6.00   | В  | SPT(C) N>50<br>22,3 for<br>5mm/50 for<br>40mm            |                   |                              |                                     | N.B: Sulphurou<br>( <b>MADE GROU</b><br>NOTE: Propo   | us odo<br><b>ND)</b><br>sed re  | our noted.<br>mediatior    | n level 4.8                 | Sm AOD.                   |  |   | 4.59   |   | 4.50<br>-<br>-  |  |
| <u>}</u> +  |  |  |                   |                              |                                     | MADE GROUN<br>to coarse GRA                           | ND: Gr<br>VEL c   | rey subro<br>of slag wit   | unded to<br>h high co       | subangu<br>bble con       | ilar med<br>itent. C   | dium<br>obbles  |  |   | -   |  |
| Wate  | <br>er Strikes   | s  | <u> </u> н        | ole Di                       | ameter                              |   | Progre  | ess                        | -                           |                           | 10.5   |   | Remar  |   | 2#0 15  |  |
| Strike Flow<br>Depth  | / Remarł   | (5   | Hole<br>(mm       | ∍ Dia<br><u>ı)</u><br>p. Pit | Depth o<br><u>Hole (n</u><br>1.00   | of Date Ti<br>1) 08-09-2022 11                        | ime<br>6:15   | Hole<br>Depth (m)<br>0.90  | Casing<br>Depth (m)<br>0.90 | Water<br>Depth (m)        | 1. Sonic/R<br>Redcar. Ld<br>2. Buried 9<br>granted to<br>3. SO/RC<br>Coring to 3<br>4. Topogra<br>5. Ground<br>6. Slag an<br>6.51m bgl<br>7. Installec<br>HDPE sta | Iotary Core (<br>poated in the<br>Service Inspec<br>progress bo<br>borehole ad<br>39.00m bgl.<br>aphy: Level (<br>water strikes<br>id refractory<br>I. Sulphurous<br>d with 35mm<br>indpipe to 31 | SO/RC) bore<br>r north west o<br>ection Pit term<br>rehole via So<br>vanced via So<br>Ground.<br>a not observed<br>material enco<br>odour noted<br>ID HPDE sta<br>.00m bgl (sloi | hole located in the Main 1<br>of Remediation Zone PR2<br>ninated at 1.00m bgl on h<br>onic drilling,<br>onic drilling to 16.50m bg<br>d during drilling due to ad-<br>yuntered in material recov<br>0.80-4.50m and 6.51-7.1<br>andpipe to 11.50 (slotted<br>tted 28.00-31.00m bgl). C | Site area of Te<br>A.<br>ard stratum. F<br>I, and complet<br>dition of flush v<br>ered from gro<br>5m bgl.<br>8.50-11.50m)<br>Datalogger inst | esworks,<br>ermission<br>ed via Rotary<br>vater.<br>und level to<br>and 50mm ID<br>alled in 35mm |
| 4   |  |  |                   |                              |                                     |   |   | 1                          | 1                           | (                         | Isminhhe   | ac i nuorin al  |  | naniapipo ar 00.00111 DGI.  |   |  |

| ΛΞ  |  | Borehole                        | No. F-E  | 3H102  |                                  |                   |  |  |  |  |  |
|---|--|---------------------------------|--|--|----------------------------------|-------------------|--|--|--|--|--|
|   |  | 2 City Wal<br>Leeds<br>LS11 9AR | k Fax: 0113 391<br>www.aecom.co  | 6899<br>im REDISTERED USER 2022                      | Sheet: 2 of 8                    |                   |  |  |  |  |  |
| Equipment &<br>0.00 - 0.90 Sc<br>0.90 - 1.00 In:<br>1.00 - 16.50 Sc   | Methods:<br>onic Drilling (Hammer ID: GS10)<br>sulated Hand Tools<br>onic Drilling (Hammer ID: GS10) | Projec<br>Projec<br>Client:     | t Name: Net Zero Teesside Onshore (<br>t Location: Redcar, North Yorkshire<br>BP                       | Ground Investigation - Fron                          | t End Engineering D              | lesign (FEED)     | Job No:<br>60678042                        |  |  |  |  |
| 16.50 - 39.00 Ro  | otary Coring (Hammer ID: GS10)   | Co-orc<br>E: 456                | linates:<br>886.025  | Ground Level (m):<br>9.088                           | AOD                              | Date Started:     | 08/09/2022                                 |  |  |  |  |
| In  | Situ Testing   | N: 525<br>Coring Information    | 746.644  |  | Reduced<br>Level                 |                   | Depth Backfill/                            |  |  |  |  |
| Depth<br>(m)  | Ref & Test Type<br>Type and Result   | SCR FI Core<br>RQD              | DESCRIPTION  |  | (m)                              | Legend            | (m)  |  |  |  |  |
| 5.00<br>-<br>-<br>-<br>-<br>-<br>-<br>-   | PiD = 0.0ppr   |                                 | are subrounded of slag<br>N.B. Material too coarse for en<br>(MADE GROUND)                             | vironmental sampling.                                |                                  |                   | -<br>-<br>-<br>-<br>-(2.01)<br>-<br>-<br>- |  |  |  |  |
| <b>6.00</b><br>- 6.10- 6.30<br>-<br>-   | PID = 0.2ppm<br>SPT(C) N>50<br>8,11/10,16,24<br>for 45mm   |                                 | From 6.07m bgl: Gravel becor   | nes fine to coarse.                                  | 0.50                             |                   | -  |  |  |  |  |
| - 6.60  | ES   |                                 | MADE GROUND: Blueish grey<br>subangular fine to coarse GRA   | / sandy silty angular to<br>VEL of slag. Sand is n   | nedium                           |                   | - 6.51<br>- (0.22)                         |  |  |  |  |
| 6.75- 7.15  | в  |                                 | to coarse  | Ū  | 2.36                             |                   | - 6.73<br>-                                |  |  |  |  |
| -<br>7.00<br>-  | PID = 0.3ppm   |                                 | MADE GROUND:<br>MADE GROUND:<br>MADE GROUND: Blueish grey<br>fine to coarse GRAVEL of slag             | / sandy angular to suba<br>. Sand is fine to coarse  | angular<br>e 1.94                |                   | - (0.42)<br>                               |  |  |  |  |
|   | ES   |                                 | N.B. Sulphurous odour noted. (MADE GROUND)   |  |                                  |                   |  |  |  |  |  |
| <b>7.50-</b> 7.75   | D SPT(S) N=14<br>SS 2,1/<br>1,2,3,8  |                                 | MADE GROUND: Brown mottle<br>to coarse SAND. Gravel is ang<br>coarse of slag<br>(MADE GROUND)          | ed black slightly gravel<br>jular to subangular fine | ly fine<br>to                    |                   | - (0.60)<br>                               |  |  |  |  |
| 7.75- 8.15  | В  |                                 | From 7.27m bgl: Gravel is abs<br>Dense black mottled brown fin<br>(TIDAL FLAT DEPOSITS)                | sent.<br>e to medium SAND                            | 1.34                             |                   | - 7.75<br>                                 |  |  |  |  |
| <b>8.20</b><br>8.27- 9.00   | ES PID = 0.4ppm<br>B   |                                 | From 8.15m to 8.27m bgl: Fos   | sil band present.                                    |                                  | · · · · · · · · · | - 000<br>- 000                             |  |  |  |  |
|   | B PID = 0.2ppm<br>ES SPT(S) N=37<br>7,11/<br>10.98.10  |                                 | From 8.27m bgl: Becomes bro  | own mottled black.                                   |                                  |                   |  |  |  |  |  |
| 9.60- 9.70<br>  | DB   |                                 | Light brown fine to coarse SAM<br>fragments<br>(TIDAL FLAT DEPOSITS)<br>At 9.68m bgl: Layer of rounder | ND with frequent shell a                             | -0.48<br>and coal<br>im to -0.91 |                   |  |  |  |  |  |
| Water Strikes         Hole Diameter         Progress         Remarks           Strike         Flow Remarks         Hole Dia<br>(mm)         Depth of<br>Hole (m)         Date         Time         Hole         Casing<br>Depth (m)         Water         1. Sonic/Roitary Core (SO/RC) borehole located in the Main Site area<br>(mm)         Redar Located in the north west of Remediation Zone PR2A.           2. Build Service Inspection Pit terminated at 1.00m bgl on hard strat<br>granted to progress borehole via Sonic drilling.         3. SO/RC borehole advanced via Sonic drilling to 16.50m bgl, and co<br>Coring to 33.00m bgl.           3. SO/RC borehole advanced via Sonic drilling to 16.50m bgl, and co<br>Coring to 33.00m bgl.         Solid Water<br>(mem)         Solid Water<br>Hole (m)         Solid Water<br>(mem)         3. SO/RC borehole advanced via Sonic drilling<br>3. SO/RC borehole advanced via Sonic drilling to 16.50m bgl, and co<br>Coring to 33.00m bgl.         3. SO/RC borehole advanced via Sonic drilling to 16.50m bgl, and co<br>Coring to 33.00m bgl.           4. Topography: Level Ground.         5. Groundwater strikes not observed uning drilling due to addition of<br>6. Stag and refractory material arecovered in material recovered<br>for finaled with 35mm DH PDE standpipe to 11.00 (solted 28.00-31.00m bgl.         Strategraphic to 31.00m bgl.           4. Topography: Level Ground.         For explanation of symbols and aphreviations see Key Sheet         Scale: 1:25         Logged By: RB         Checked By: Ji |  |                                 |  |  |                                  |                   |  |  |  |  |  |

|   | AE  | C   | <b>ON</b>  |              | AECON<br>Sth Floor<br>City Walk<br>Leeds<br>St1 00 P | Tel: 0113 391<br>Fax: 0113 391<br>www.aecom.cc   | 6800<br>6899<br>om AGS  | Boreho   | le No. F-I   | 3H10  | 2  |
|---|---|---|--|--------------|--|--|---|--|--|---|--|
|   | Equipment &   | Method  | s:   | L            | Project I  | Name: Net Zero Teesside Onshore  | Ground Investigation  | - Front End Engineerir   | ig Design (FEED)   | Job No:   |  |
|   | 0.00 - 0.90 So  | nic Drilling  | (Hammer ID: GS10)  |              | Project I  | Location: Redcar, North Yorkshire  |   |  |  | 6067  | 8042   |
|   | 1.00 - 16.50 So   | nic Drilling  | (Hammer ID: GS10)  |              | Client: I  | BP   |   |  |  |   |  |
|   | 16.50 - 39.00 Ro  | tary Coring   | g (Hammer ID: GS10)  | -            | Co-ordir   | nates:   | Ground Level (m):   |  | Date Started:  | 08/09/2022  | 2  |
|   |   |   |  |              | N: 5257  | 746.644  |   | 9.088 AOD  | Date Complete  | ed: 20/09/2   | 2022   |
| ľ | In S  | Situ Tes  | ting   | Coring Inf   | formation  |  | I.  | Redu   | xed  | Depth<br>(Thick)  | Backfill/  |
|   | Depth   | Sample<br>Ref &   | Test Type  | TCR<br>SCR F | Core   | DESCRIPTION  |   | (m)  | Legend   | (m)   | Instrument   |
| + | 10.00   | Type<br>ES  | and Result<br>PID = 0.3ppm   | RQD          | Kull   | coarso gravel of sandstone   |   |  | 0  |   |  |
|   | Depth<br>(m)<br>10.00<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-      | B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B<br>B | Test Type<br>and Result<br>PID = 0.3ppm<br>SPT(S) N=35<br>2,2/<br>8,7,10,10<br>PID = 0.3ppm<br>SPT(S) N>50<br>5,7/9,22,19 for<br>35mm<br>PID = 1.3ppm<br>SPT(S) N>50<br>2,9/12,23,15 for<br>30mm |              | Core<br>Run  | Coarse gravel of sandstone.<br>Dense light brown slightly grav<br>shell and coal fragments. Grav<br>fine to medium of mudstone at<br>(TIDAL FLAT DEPOSITS)<br>At 11.43m bgl: Shell fragment<br>From 11.98m bgl: Coal fragment<br>From 11.98m to 12.09m bgl: Coarse.<br>From 12.00m bgl: Becomes v<br>Very dense light brown slightly<br>SAND with rare shell fragment<br>to medium of sandstone and n<br>(TIDAL FLAT DEPOSITS) | velly fine to coarse<br>vel is rounded to so<br>nd sandstone<br>ts become more al<br>ents become abur<br>Gravel becomes fin<br>ery dense. | minimum (minimum (min | Legend<br>0 0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0<br>0 0  | (m)<br>(m)<br>(m)<br>(m)<br>(m)<br>(m)<br>(m)<br>(m)                                    |  |
|   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- | B<br>ES<br>D  | PID = 0.5ppm   |              |  | From 14.02m bgl: Becomes g<br>Very dense dark brown very gr<br>with frequent shell fragments.<br>subrounded fine to coarse of s<br>(TIDAL FLAT DEPOSITS)<br>From 14.57m to 14.76m bgl: 0   | ravelly.<br>ravelly fine to coar<br>Gravel is rounded<br>sandstone and mu<br>Gravel is absent.  | -5.1<br>se SAND<br>to<br>dstone  | 5  | - (0.87)<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-          |  |
| 봙 | -   |   |  |              |  |  |   |  | · · · · · · · ·  | ┠│  |  |
| 2 | -   |   |  |              |  |  |   |  | 0.00   | ╞   |  |
| 2 | Water   | Strikes   | l;   | Hole         | Diameter   | r Progress   |   | Re   | marks  | I – – – –   |  |
|   | Strike Flow   | Remark  | (S   | Hole D       | ia Depth o   | of Date Time Hole  | Casing Water  | 1. Sonic/Rotary Core (SO/RC)<br>Redcar. Located in the north w   | borehole located in the Main<br>est of Remediation Zone PR   | Site area of Te   | esworks,   |
|   |   |   |  |              |  |  |   | 2. Suried service inspection Pi<br>granted to progress borehole v<br>3. SORC borehole advanced 1<br>Coring to 39.00m bgl.<br>4. Topography: Level Ground.<br>5. Groundwater strikes not obs<br>6. Slag and refractory material<br>6.51m bgl. Sulphurous odour n<br>7. Installed with 35mm ID HPD<br>DHDE standpipe to 31.00m bg<br>standpipe at 11.00m and in 50   | a Sonic drilling.<br>a Sonic drilling.<br>a Sonic drilling to 16.50m b<br>encountered in material reco<br>ted 0.80-4.50m and 6.51-7.<br>E standpie to 11.50 (slotted<br>(slotted 28.00-31.00m bgl),<br>nm standpipe at 30.50m bg | Idition of flush w<br>vered from grou<br>15m bgl.<br>8.50-11.50m) a<br>Datalogger insta | vater.<br>and level to<br>and 50mm ID<br>alled in 35mm |
|   | Notes: For ex   | planatic  | on of symbols and  | d abbrevia   |  | e Key Sheet Scale: 1:25  |   | ogged By: RB   | Checked  | By: JW  |  |

|          | ΛΞ                              |                            | 5                            | <b>A</b>   | AE              |                   | И                             | т                  | al: 0112 201              | 6900                   |                        |                                    | Bore  | ehole   | No. F-E   | 3H10  | 2                           |
|----------|---------------------------------|----------------------------|------------------------------|------------|-----------------|-------------------|-------------------------------|--------------------|---------------------------|------------------------|------------------------|------------------------------------|---|---|---|---|-----------------------------|
| 4        |                                 |                            |                              |            | 2 Ci            | ty Walk<br>ds     |                               | F                  | ax: 0113 39<br>ww.aecom.c | 6899<br>om             |                        | 3022                               | Sheet: 4  | l of 8  |   |   |                             |
|          | Equipment &                     | Methods                    | 6:                           |            | F               | Project           | Name: Net Zer                 | o Teessid          | le Onshore                | Ground Ir              | vestigatio             | n - Front                          | t End Eng   | ineering D                                    | Design (FEED)   | Job No:   |                             |
| 0.<br>0. | .00 - 0.90 So<br>.90 - 1.00 Ins | nic Drilling<br>ulated Han | (Hammer ID: GS10)<br>d Tools |            | F               | Project           | Location: Redo                | ar, North          | Yorkshire                 |                        |                        |                                    |   |   |   | 6067  | 8042                        |
| 1.       | .00 - 16.50 So                  | nic Drilling               | (Hammer ID: GS10)            |            | C               | Client: I         | BP                            |                    |                           |                        |                        |                                    |   |   |   |   |                             |
|          | 0.00 - 00.00 110                | tary coring                | (namine ib. coro)            |            | E               | : 4568            | nates:<br>86.025              |                    |                           | Ground                 | Level (m)              | ):<br>9.088                        | AOD   |   | Date Started: (   | 08/09/2022<br>d: 20/09/2                        | 022                         |
|          | In S                            | Situ Test                  | ling                         | Corinc     | Inforr          | I: 5257<br>nation | 46.644                        |                    |                           |                        |                        |                                    |   | Reduced                                       |   | Depth   | Backfill/                   |
|          | Depth                           | Sample                     | Test Type                    | TCR        | FI              | Core              |                               | DES                | SCRIPTION                 | I                      |                        |                                    |   | Level<br>(m)                                  | Legend  | (Thick)<br>(m)                                  | Instrument                  |
|          | (m)<br><b>15.00-</b> 15.31      | Type                       | and Result<br>SPT(S) N>50    | RQD        |                 | Run               |                               |                    |                           |                        |                        |                                    |   |   | · . · ·   |   |                             |
| F        | 15.00- 15.45                    | SS                         | 5,9/17,18,15 for<br>40mm     |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   | · · · · · · · · · · · ·   | - (1.76)  |                             |
| Ľ        | 15 21 16 00                     | Б                          |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   | · · · · · · · ·   |   |                             |
| F        | 13.31- 10.00                    | Б                          |                              |            |                 |                   | From 15 31                    | n hal· B           | ecomes (                  | u volly v              | vith low c             | obble                              |   |   |   | -   |                             |
| $\vdash$ | 15.50                           |                            | PID = 1.2ppm                 |            |                 |                   | content. Cob                  | bles are           | e rounded                 | to subro               | unded o                | of sands                           | stone.  |   | · • · · · · · • · · · · ·   | -   |                             |
| Ē        |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   | · · · · · · · · · · · ·   |   |                             |
| F        |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   | $\cdot$   | -   |                             |
| +        |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   | 0.04  | · · · · · · · ·   | -   |                             |
| F        | 16.00- 16.50                    | В                          |                              |            |                 | ŀ                 | Stiff locally fi              | rm redd            | ish browr                 | slightly               | gravelly               | slightly                           | sandy   | -0.91   |   | 00.01   |                             |
| F        |                                 |                            |                              |            |                 |                   | silty CLAY w<br>Gravel is rou | th occa<br>nded to | sional ligl<br>angular f  | nt bluish<br>ine to me | grey silty<br>edium of | / fissure<br>coal.                 | es.   |   |   |   |                             |
| +        | 16 34                           | FS                         | PID = 1 1ppm                 |            |                 |                   | mudstone ar                   | d sands            | stone. Sa                 | nd is fine             | to coars               | se                                 |   |   | <u> </u>  | -   |                             |
| F        | 16 50 40 70                     | _                          |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| F        | 16.50- 16.73                    | C                          |                              |            |                 | 16.50-<br>18.00   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| ł        |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   | <br>  | -   |                             |
| F        |                                 |                            |                              |            |                 |                   | Energy 40 77                  |                    | 00                        | <b>D</b>               |                        | . <b>b</b>                         |   |   |   | -   |                             |
| Ĺ        |                                 |                            |                              |            |                 |                   |                               |                    | oun bgi:                  | Decome                 | s greyisn              |                                    | 1.  |   | <u> </u>  |   |                             |
| -        |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| F        |                                 |                            |                              | 100<br>0   |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| E        |                                 |                            |                              | 0          |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| F        |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | _   |                             |
| 2022     |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| mber     |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| Nove     |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| te: 29   |                                 |                            |                              |            | ŀ               | 18.00-            |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| - Da     |                                 |                            |                              |            |                 | 19.50             |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| 3.GLB    |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| - <1.    |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| RAR      |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
|          |                                 |                            |                              | 100        |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| GS 4     |                                 |                            |                              | 0          |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | (5.68)  |                             |
|          |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   | -   |                             |
| ary: N   |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
|          |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| GPJ      |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| ZT GI    |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   | ······································  | -   |                             |
| 1:1 N    |                                 |                            |                              |            | Ī               | 19.50-            |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| l <1     |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| Proje    |                                 |                            |                              |            | CLAY            |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
| 00-      |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        |                                    |   |   |   |   |                             |
|          | Wate<br>Strike Flow             | Strikes<br>Remark          | s                            | Hole       | ole Di<br>e Dia | ameter<br>Depth   | of Date                       | Progre<br>Time     | Hole                      | Casing                 | Water                  | 1. Sonic/                          | Rotary Core (                                       | Remar<br>SO/RC) borel                         | ks<br>hole located in the Main S  | Site area of Tee                                | esworks,                    |
| OREH     | Depth                           |                            |                              | (mn<br>194 | ו)              | Hole (n<br>16.50  | n)<br>12-09-2022              | 17:00              | Depth (m<br>16.50         | Depth (m<br>16.50      | ) Depth (m<br>6.20     | 1) 2. Buried<br>granted t          | d Service Inspector<br>to progress bo               | ection Pit term<br>rehole via So              | ninated at 1.00m bgl on h<br>nic drilling.  | ard stratum. Pe                                 | ermission<br>d via Rotary   |
| RD C     |                                 |                            |                              |            |                 | -                 |                               |                    |                           |                        |                        | Coring to                          | o 39.00m bgl.<br>graphy: Level (                    | Ground.                                       | 7 no uning to 10.0000 Dg  |   | a via i votal y             |
| ANDA     |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        | 5. Groun<br>6. Slag a<br>6.51m b   | iowater strikes<br>and refractory<br>gl. Sulphurous | not observed<br>material enco<br>odour noted  | a ouring drilling due to ad<br>untered in material recov<br>0.80-4.50m and 6.51-7.1 | attion of flush w<br>rered from grou<br>5m bgl. | ater.<br>nd level to        |
| ): ST/   |                                 |                            |                              |            |                 |                   |                               |                    |                           |                        |                        | 7. Installe<br>HDPE st<br>standpip | ed with 35mm<br>tandpipe to 31<br>e at 11.00m a     | ID HPDE sta<br>.00m bgl (slot<br>nd in 50mm s | ndpipe to 11.50 (slotted<br>ted 28.00-31.00m bgl). I<br>tandpipe at 30.50m bgl.     | 8.50-11.50m) a<br>Datalogger insta              | nd 50mm ID<br>Illed in 35mm |
| port IC  |                                 |                            |                              |            |                 |                   |                               |                    | )<br>210: 1:05            |                        |                        |                                    | םם מ  |   | Charlert  | 21/- 11/1                                       |                             |
| Re       | Notes: For ex                   | planatio                   | n of symbols and             | d abbr     | eviatio         | ons, see          | e Key Sheet.                  | So                 | ale: 1:25                 |                        |                        | Lugged                             | ру. КВ  |   |   | by. JVV   |                             |

|   | A                                     |                            | C  | <b>O</b>  |   | 5th<br>2 C<br>Lee                 | ECOI<br>Floor<br>tity Walk                 | И  | Ti<br>Fi<br>W   | el: 0113 391<br>ax: 0113 391<br>ww.aecom.co  | 6800<br>6899<br>om   | AGS                   | E  | Bore   | hole   | No.  | F-B  | 3H10  | 2   |
|---|---------------------------------------|----------------------------|--|---|---|-----------------------------------|--|--|---|--|--|-----------------------|--|--|--|--|--|---|---|
|   | Equipm                                | nent &                     | Methods                                    | 6:  |   |                                   | 11 9AR<br>Project                          | Name: Net Zero   | o Teessid   | le Onshore   | Ground Ir  | registered user 202   | - Front E  | ind Eng  | ineering D   | Design (FEE  | D)   | Job No:   |   |
|   | 0.00 - 0.9<br>0.90 - 1.0<br>1.00 - 16 | 90 So<br>00 Ins<br>6.50 So | nic Drilling<br>ulated Han<br>nic Drilling | (Hammer ID: GS10)<br>d Tools<br>(Hammer ID: GS10) |   |                                   | Project<br>Client:                         | Location: Redc   | ar, North   | Yorkshire  |  |                       |  |  |  |  |  | 6067  | 8042  |
|   | 16.50 - 39                            | 0.00 Ro                    | tary Coring                                | (Hammer ID: GS10)                                 |   |                                   | Co-ordi                                    | nates:<br>86.025   |   |  | Ground   | Level (m):            | 0.088  |  |  | Date Star  | rted: 0  | 8/09/2022   | 2   |
|   |                                       |                            |  |   |   |                                   | N: 5257                                    | 46.644   |   |  |  |                       | 9.000  | AOD  |  | Date Con   | npleted  | d: 20/09/2  | 022   |
|   | Depth<br>(m)                          | h                          | Sample<br>Sample<br>Ref &<br>Type          | Test Type<br>and Result                           | TCR<br>SCR<br>RQD   | FI                                | mation<br>Core<br>Run                      |  | DES   | SCRIPTION  |  |                       |  |  | Level<br>(m)   | Leger  | nd   | Deptn<br>(Thick)<br>(m)   | Backfill/<br>Instrument   |
| OLE LOG    Project: V11.1 NZT GI.GPJ    Library: NZT AGS 4_0 LIBRARY V1.3.GLB    Date: 29 November 2022 |                                       | 21.39<br>Waten<br>Flow     | C<br>C<br>Strikes<br>Remark                | S   | 100<br>0<br>100<br>0<br>0<br>100<br>100<br>84<br>100<br>100<br>84<br>100<br>100<br>84 | 17<br>5<br>NI<br>14<br>NI<br>CLAY | 21.00-<br>22.50<br>22.50<br>24.00<br>25.50 | Stiff reddish I<br>angular fine t<br>(TILL: DEVEN<br>MUDSTONE<br>recovered as<br>to closely spa<br>firm grey clay<br>mudstone<br>(MERCIA MU<br>From 24.37n<br>From 24.63n<br>angular grave | brown m<br>to mediu<br>NSIAN)<br>Pack fract<br>with oc<br>gravel<br>aced, 45<br>aced, 4 | tured thinl<br>casional t<br>and firm c<br>-70°, plar<br>bangular<br><b>E GROUF</b><br>63m bgl: f<br>dstone. | y lamina<br>Juish gri<br>Jay. Fraci<br>ar rougi<br>fine to c<br>P)<br>Recover<br>Recover | Iy CLAY.              | Gravel<br>sh brow<br>s. Loca<br>1: Very o<br>nfilled w<br>vel of   | is<br>n<br>Ily<br>close<br>rith<br>ay.<br>se   | -12.59<br>-14.14   |  |  | 21.68<br>   | esworks,  |
| ID: STANDARD COREHOL  | Strike<br>Depth                       | Flow                       | ≺emark                                     | S   | Hole<br>(mn   | e Dia<br>n)                       | Depth<br>Hole (r                           | or i Date<br>n)  | IIMe  | Hole<br>Depth (m)  | Casing<br>Depth (m   | vvater<br>) Depth (m) | 2. Buried Sv<br>granted to p<br>3. SO/RC b<br>Coring to 33<br>4. Topograf<br>5. Groundw<br>6.51m bgl. 1<br>7. Installed<br>HDPE stanu<br>standpipe a | cary COTE<br>cated in the<br>ervice Insp<br>orogress bo<br>orehole ac<br>0.00m bgl.<br>oby: Level<br>ater strike:<br>refractory<br>Sulphurous<br>with 35mm<br>dpipe to 3 <sup>-1</sup><br>t 11.00m a | e orr(c) borel<br>e north west of<br>ection Pit term<br>prehole via So<br>foround.<br>s not observed<br>material enco<br>s odour noted<br>i ID HPDE sta<br>.00m bgl (slot<br>and in 50mm s | in responsibility of the second secon | ue to add<br>ial recove<br>6.51-7.15<br>(slotted 8<br>m bgl). Di<br>50m bgl. | and area of 166<br>A.<br>and stratum. Per<br>ition of flush w<br>ered from grou<br>im bgl.<br>50-11.50m) a<br>atalogger insta | ermission<br>ed via Rotary<br>ater.<br>ind level to<br>ind 50mm ID<br>alled in 35mm |
| Report  | Notes:                                | For ex                     | planatio                                   | n of symbols an                                   | ld abbr   | eviati                            | ons, se                                    | e Key Sheet.   | Sc  | <br>:ale: 1:25   |  | L                     | Logged By  | : RB   |  | Che  | cked B   | y: JW   |   |

|              | Λ  |  |  |   | A                | A<br>5th         | ECO                           | М                                     | -                       | Tel: 0113 391                | 6800                        |                            | В   | orehc   | ole N  | lo. F-E   | 3H10   | 2  |                  |
|--------------|--|--|--|---|------------------|------------------|-------------------------------|---------------------------------------|-------------------------|------------------------------|-----------------------------|----------------------------|---|---|--|---|--|--|------------------|
| 4            |  |  |  |   |                  | 2 C<br>Lee<br>LS | City Walk<br>eds<br>11 9AR    |                                       | 1                       | Fax: 0113 391<br>www.aecom.c | om                          | AGS<br>REGISTERED USER 202 | n Sh  | eet: 6 of   | 8  |   |  |  |                  |
| 0            | Equipm<br>.00 - 0.9<br>.90 - 1.0<br>.00 - 16 | 1 ent & M<br>90 Sor<br>00 Insi<br>1.50 Sor | Methods<br>nic Drilling (<br>ulated Hano<br>nic Drilling ( | CHammer ID: GS10)<br>d Tools<br>(Hammer ID: GS10) |                  |                  | Project<br>Project<br>Client: | Name: Net Zer<br>Location: Redo<br>BP | ro Teessi<br>car, North | ide Onshore<br>n Yorkshire   | Ground In                   | vestigation                | - Front En  | id Engineeri  | ing Desig  | ın (FEED)   | Job No:<br>6067  | 8042   |                  |
| 1            | 6.50 - 39                                    | .00 Rot                                    | ary Coring   | (Hammer ID: GS10)                                 |                  |                  | Co-ordi<br>E: 4568            | nates:<br>86.025                      |                         |                              | Ground                      | Level (m):                 | 9.088   | AOD   | D  | ate Started:<br>ate Complete  | 1<br>08/09/2022<br>ed: 20/09/2   | 2  |                  |
| F            | Dept   | In S                                       | itu Test<br>Sample   | ing<br>Test Type                                  | Coring<br>TCR    | Infor            | mation<br>Core                | 40.044                                | DE                      | SCRIPTION                    | 1                           |                            |   | Redu<br>Lev<br>(m   | uced<br>vel<br>1)  | Legend  | Depth<br>(Thick)<br>(m)  | Back   | .fill/<br>nent   |
| F            | (m)  |  | Туре   | and Result  | RQD              | NI               | Run                           |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| F            |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| F            |  |  |  |   |                  | CLAY             | 25.50-                        | From 25.32<br>horizontal to           | m bgl: F<br>10°, un     | Fracture sendulating s       | et 2 prese<br>mooth, o      | ent: Wide<br>pen, infill   | spaced,<br>ed with fi   | rm  |  |   | -  |  |                  |
| E            |  |  |  |   |                  | NI<br>11         | 27.00                         | From 25.50                            | n to 25                 | ar fine to c<br>.59m bgl:    | coarse gr<br>Recoved        | avei of m<br>as firm g     | udstone.<br>Irey clay.  |   |  |   |  |  |                  |
| F            |  |  |  |   |                  | NI               |                               | From 25.90                            | m to 27                 | .00m bal:                    | Recovered                   | ed as stiff                | arev cla  | v.  |  |   | -  |  |                  |
| F            |  |  |  |   | 100<br>85        |                  |                               |                                       |                         |                              |                             |                            | <u>.</u>  |   |  |   | -  |  |                  |
| Ē            | _  |  |  |   | 13               | CLAY             |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| F            |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| F            |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| E            | •  |  |  |   |                  |                  | 27.00-<br>28.50               | From 27.00                            | m bgl: F                | Fracture se                  | et 1 no lo                  | nger pres                  | sent.   |   |  |   | -  |  |                  |
| F            |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| r 2022       | -  |  |  |   | 100              | 2                |                               |                                       |                         |                              |                             |                            |   |   |  |   |  |  | 0                |
| Novembe      |  |  |  |   | 100<br>100<br>94 |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  | 000  | 0                |
| Date: 29     |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  | l ô              |
| V1.3.GLB     |  |  |  |   |                  | NI               |                               |                                       |                         |                              |                             |                            |   |   |  |   |  | 000  |                  |
| LIBRARY      | -  |  |  |   |                  | 0<br>NI          | 28.50-<br>30.00               |                                       |                         |                              |                             |                            |   |   |  |   | -  | 0 0<br>0 0<br>0 0                                      | 000              |
| AGS 4_0      |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| In NZT       | -  |  |  |   |                  | 9                |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  | 0 0<br>0 0<br>0 0                                      | 000              |
| .GPJ ILI     |  |  |  |   | 100<br>63<br>63  |                  |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  |  |                  |
| 1.1 NZT G    | -  |  |  |   |                  | 4                |                               |                                       |                         |                              |                             |                            |   |   |  |   | -  | 0 0<br>0 0<br>0 0                                      | 0<br>0<br>0<br>0 |
| roject: V1'  | 29.72  |  | с  |   |                  | -                |                               |                                       |                         |                              |                             |                            |   |   |  |   |  |  |                  |
| LOG P        | 29.91  | Water                                      | C<br>Strikes   |   |                  | lole D           | iamete                        | r                                     | Prog                    | ress                         |                             |                            |   | Re  | emarks   |   | -  |  |                  |
| COREHOLE     | Strike<br>Depth                              | Flow I                                     | Remark   | S   | Hol<br>(mn       | e Dia<br>n)      | Depth<br>Hole (r              | of Date<br>n)<br>13-09-2022           | Time<br>17:00           | Hole<br>Depth (m)<br>27.00   | Casing<br>Depth (m<br>27.00 | Water<br>Depth (m)<br>1.60 | 1. Sonic/Rota<br>Redcar. Loca<br>2. Buried Sen<br>granted to pro<br>3. SO/RC bor<br>Coring to 39.0                  | ry Core (SO/RC<br>ted in the north v<br>vice Inspection F<br>ogress borehole<br>ehole advanced<br>00m bgl.                            | ) borehole lo<br>west of Rem<br>Pit terminated<br>via Sonic dri<br>I via Sonic dri           | ocated in the Main<br>ediation Zone PR2<br>d at 1.00m bgl on h<br>lling.<br>illing to 16.50m bg                                     | Site area of Te<br>2A.<br>hard stratum. P<br>I, and complete                           | esworks,<br>ermission<br>ed via Rotary                 | ,                |
| ID: STANDARD |  |  |  |   |                  |                  |                               |                                       |                         |                              |                             |                            | 4. Topograph<br>5. Groundwat<br>6. Slag and re<br>6.51m bgl. Su<br>7. Installed wi<br>HDPE standp<br>standpipe at 1 | y: Level Ground.<br>er strikes not ob<br>fractory materia<br>llphurous odour<br>th 35mm ID HPI<br>ipe to 31.00m b<br>11.00m and in 50 | served durin<br>al encountere<br>noted 0.80-4<br>DE standpip<br>gl (slotted 28<br>0mm standp | g drilling due to ad<br>d in material recov<br>50m and 6.51-7.1<br>e to 11.50 (slotted<br>8.00-31.00m bgl). I<br>ipe at 30.50m bgl. | dition of flush w<br>/ered from grou<br>15m bgl.<br>8.50-11.50m) a<br>Datalogger insta | vater.<br>Ind level to<br>and 50mm ID<br>alled in 35mm | )<br>n           |
| Report       | Notes:                                       | For exp                                    | olanatio   | n of symbols an                                   | ld abbr          | eviati           | ons, se                       | e Key Sheet.                          | s                       | Scale: 1:25                  |                             | L                          | Logged By:  | RB  |  | Checked E   | By: JW   |  |                  |

| A           |                    | C                                 | ΌΛ                                     |           | 5th<br>2 C<br>Lee | ECO<br>Floor<br>City Walk<br>eds | VI                           | Te<br>Fa<br>W  | el: 0113 391<br>ax: 0113 391<br>ww.aecom.co | 6800<br>6899<br>om                 | AGS<br>REGISTERED USER 20 | Bor<br>Sheet:   | ehole                               | No. F-l   | 3H10                              | 2                            |
|-------------|--------------------|-----------------------------------|--|-----------|-------------------|----------------------------------|------------------------------|----------------|---|------------------------------------|---------------------------|---|-------------------------------------|---|-----------------------------------|------------------------------|
| Equip       | ment &             | & Methods                         | :                                      |           |                   | Project                          | Name: Net Zer                | o Teesside     | e Onshore                                   | Ground Ir                          | vestigation               | - Front End En  | gineering [                         | Design (FEED)   | Job No                            | :                            |
| 0.00 - 0    | 0.90 S<br>1.00 I   | Sonic Drilling (<br>nsulated Han  | (Hammer ID: GS10)<br>d Tools           |           |                   | Project                          | Location: Redo               | car, North `   | Yorkshire                                   |                                    |                           |   |                                     |   | 6067                              | 78042                        |
| 1.00 -      | 16.50 S<br>39.00 F | Sonic Drilling (<br>Rotary Coring | (Hammer ID: GS10)<br>(Hammer ID: GS10) |           |                   | Client:                          | BP                           |                |   | Creating                           |                           |   |                                     | Data Startadi   | 00/00/202                         | 0                            |
|             |                    | , · · · ·                         |  |           |                   | E: 4568                          | 86.025                       |                |   | Ground                             | Level (m):                | 9.088 AOD   |                                     | Date Started:   | og/09/202                         | 2<br>2022                    |
|             | In                 | Situ Test                         | ina                                    | Corin     | a Info            | N: 5257<br>mation                | 46.644                       |                |   |                                    |                           |   | Reduced                             | Date Complete   | Depth                             | Backfill/                    |
| Dep         | oth                | Sample                            | Test Type                              | TCR       | FI                | Core                             |                              | DES            | CRIPTION                                    |                                    |                           |   | Level<br>(m)                        | Legend  | (Thick)                           | Instrument                   |
| (m          | )                  | Type                              | and Result                             | RQD       |                   | Run                              |                              |                |   |                                    |                           |   |                                     |   | (,                                |                              |
| +           |                    |                                   |  |           | 5                 | 30.00-<br>31.50                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| +           |                    |                                   |  |           | NI                |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   | 000000                       |
| -           |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| Ĺ           |                    |                                   |  |           | NI                |                                  | From 30.30                   | m to 30.4      | 16m bgl:                                    | Recover                            | ed as stiff               | grey clay.  |                                     |   | Ĺ                                 |                              |
| Ļ           |                    |                                   |  |           | 0                 |                                  | From 31.20                   | m bgl: Fr      | acture se                                   | et 3 prese                         | ent: Wide                 | spaced,   |                                     |   |                                   |                              |
| +           |                    |                                   |  | 100       |                   |                                  | >70°, planar<br>angular fine | rough, o       | pen, infil<br>e gravel o                    | led with the formulation of mudate | firm grey                 | clay and  |                                     |   |                                   |                              |
| +           |                    |                                   |  | 66        | CLAY              |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| F           |                    |                                   |  |           |                   |                                  | From 30.63                   | m to 31.0      | J5m bgi:                                    | Recover                            | ed as stiff               | grey clay.  |                                     |   |                                   |                              |
| F           |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   | (15.77)                           |                              |
| +           |                    |                                   |  |           | 3                 |                                  |                              |                |   |                                    |                           |   |                                     |   | Ĺ                                 | 00000                        |
| +           |                    |                                   |  |           |                   |                                  | From 30.46                   | m to 30.6      | 63m bgl:                                    | Band of                            | medium s                  | trong grey  |                                     |   |                                   |                              |
| +           |                    |                                   |  |           | NI<br>0           |                                  | thinly lamina                | ted siltst     | one with                                    | disperse                           | d fine sar                | nd sized  |                                     |   |                                   | 00000                        |
|             |                    |                                   |  |           | CLAY              | 31.50-                           | planes.                      | 000            | ondary of                                   |                                    | Sent on h                 | lacture   |                                     |   |                                   |                              |
| -           |                    |                                   |  |           | 0<br>CLAY         | 33.00                            | From 31.50                   | m to 31.5      | 59m bgl:                                    | Recover                            | ed as stiff               | grey clay.  |                                     |   |                                   |                              |
| +           |                    |                                   |  |           |                   | 1                                | From 31 60                   | m to 31.7      | 74m bal:                                    | Pacavar                            | od og gtiff               |   |                                     |   |                                   |                              |
| +           |                    |                                   |  |           | 5                 |                                  | FI0III 31.09                 | 11 10 51.7     | 411 byl.                                    | Recover                            | eu as sun                 | grey clay.  |                                     |   |                                   |                              |
| -           |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| [           |                    |                                   |  | 100       | CLAY              |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| -           |                    |                                   |  | 100<br>62 |                   |                                  | From 32.12                   | m to 32.2      | 21m bgl:                                    | Recover                            | ed as stiff               | grey clay.  |                                     |   |                                   |                              |
| +           |                    |                                   |  |           | 3                 |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
|             |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   | -                                 |                              |
| r 202       |                    |                                   |  |           |                   |                                  | From 32 56                   | m to 33 (      | 0m bal                                      | Recover                            | ed as stiff               | arev clav   |                                     |   |                                   |                              |
|             |                    |                                   |  |           | CLAY              |                                  | 110111-02.001                | 11 10 00.0     | Joini bgi. I                                |                                    |                           | grey day.   |                                     |   |                                   |                              |
| NOV<br>NOV  |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| te: 29      |                    |                                   |  |           |                   | 33.00-                           |                              |                |   |                                    |                           |   |                                     |   | -                                 |                              |
|             |                    |                                   |  |           |                   | 34.50                            |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| B C         |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| - <1.3      |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| KARY        |                    |                                   |  |           | NI                |                                  |                              |                |   |                                    |                           |   |                                     |   | -                                 |                              |
| <u> </u>    |                    |                                   |  |           | 0                 |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| 8 4 0       |                    |                                   |  | 100       | 4                 |                                  | From 33.64                   | m to 34.0      | )2m bgl:                                    | Recover                            | ed as stiff               | grey clay.  |                                     |   |                                   |                              |
|             |                    |                                   |  | 87        | CLAY              |                                  |                              |                | Ū   |                                    |                           |   |                                     |   |                                   |                              |
| ¥33.96<br>≍ |                    | С                                 |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| librar      |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
|             |                    |                                   |  |           | 2                 |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| 5-0-0       |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| Ž–          |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           |   |                                     |   |                                   |                              |
| 11.1        |                    |                                   |  |           | 0                 | 34.50-<br>36.00                  |                              |                |   |                                    |                           |   |                                     |   | $\left  \right $                  |                              |
|             |                    |                                   |  |           |                   |                                  | From 34 65                   | m to 25 (      | )1m hal·                                    | Recover                            | ad as stiff               | arev clav   |                                     |   |                                   |                              |
| L L         |                    |                                   |  |           | CLAY              |                                  | 1-10111 34.031               | 11 10 33.0     | un bgi: l                                   | 1 COVER                            | ะน สร รแก                 | grey ciay.  |                                     |   | t                                 |                              |
| 9<br>       |                    |                                   |  | <u> </u>  |                   |                                  |                              |                |   |                                    |                           | 1   |                                     |   |                                   |                              |
| J<br>Strike | Wate<br>Flow       | er Strikes<br>v Remark            | s                                      | Ho        | Hole D<br>le Dia  | iamete<br>Depth                  | r<br>of Date                 | Progre<br>Time | ess<br>Hole                                 | Casing                             | Water                     | 1. Sonic/Rotary Core  | Rema<br>(SO/RC) bore                | rks<br>shole located in the Main                                    | Site area of Te                   | esworks,                     |
| H Depth     |                    |                                   |  | (m        | m)                | Hole (r                          | n)                           |                | Depth (m)                                   | Depth (m                           | ) Depth (m)               | Redicar. Located in t<br>2. Buried Service Ins<br>granted to progress | pection Pit terr<br>borehole via Sc | n remediation Zone PR:<br>minated at 1.00m bgl on<br>pnic drilling. | 2A.<br>hard stratum. F            | Permission                   |
|             |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           | 3. SO/RC borehole a<br>Coring to 39.00m bg<br>4. Topography: Leve     | advanced via S<br>I.<br>I Ground.   | onic drilling to 16.50m bo  | gi, and complet                   | ed via Rotary                |
| NDAF        |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           | 5. Groundwater strik<br>6. Slag and refractor                         | es not observe<br>y material enco   | d during drilling due to ac<br>ountered in material reco            | dition of flush<br>vered from gro | vater.<br>und level to       |
| STA         |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           | 7. Installed with 35m<br>HDPE standpipe to                            | m ID HPDE sta<br>31.00m bgl (slo    | andpipe to 11.50 (slotted<br>tted 28.00-31.00m bgl).                | 8.50-11.50m)<br>Datalogger ins    | and 50mm ID<br>alled in 35mm |
|             |                    |                                   |  |           |                   |                                  |                              |                |   |                                    |                           | sanopipe at 11.00m  | ana in 50mm :                       | sianopipe at 30.50m bgl   |                                   |                              |
| Notes       | : For e            | explanation                       | n of symbols ar                        | nd abb    | reviati           | ons, se                          | e Key Sheet.                 | Sca            | ale: 1:25                                   |                                    | L                         | ogged By: RB  |                                     | Checked   | By: JW                            |                              |

|   | A                                  |                | C   | <b>O</b> N                            |                 | 5th<br>2 C<br>Lee      | Floor<br>Floor<br>ity Walk  | M                                      | Te<br>Fi<br>W           | el: 0113 391<br>ax: 0113 39<br>ww.aecom.c | 6800<br>1 6899<br>om             | AGS                                | B   |   | No. F-E  | 3H10   | 2   |
|---|------------------------------------|----------------|---|---------------------------------------|-----------------|------------------------|-----------------------------|--|-------------------------|---|----------------------------------|------------------------------------|---|---|--|--|---|
| -   | Equipn<br>0.00 - 0.1<br>0.90 - 1.1 | nent &         | Methods<br>onic Drilling (<br>sulated Han | :<br>Hammer ID: GS10)<br>I Tools      |                 |                        | 119AR<br>Project<br>Project | Name: Net Zer                          | o Teessid<br>ar, North  | le Onshore<br>Yorkshire                   | Ground In                        | registered user 202<br>vestigation | - Front End   | d Engineering [   | Design (FEED)  | Job No:<br>6067  | 8042  |
|   | 1.00 - 16                          | .50 S<br>.00 R | onic Drilling (<br>otary Coring           | Hammer ID: GS10)<br>(Hammer ID: GS10) |                 |                        | Co-ordi                     | nates:                                 |                         |   | Ground                           | Level (m):                         | 0.088 /   |   | Date Started:  | 08/09/2022   |   |
| -   |                                    | In             | Situ Test                                 | ing                                   | Corin           | g Infor                | N: 5257<br>mation           | 46.644                                 |                         |   |                                  |                                    | 9.000 F   | Reduced   | Date Complete  | ed: 20/09/2  | 022<br>Backfill/  |
|   | Dept<br>(m)                        | h              | Sample<br>Ref &                           | Test Type                             | TCR<br>SCR      | FI                     | Core<br>Run                 |  | DES                     | SCRIPTION                                 | 1                                |                                    |   | Level<br>(m)  | Legend   | (Thick)<br>(m)   | Instrument  |
|   | -<br>-<br>-                        |                | Туре                                      |                                       | 100<br>82<br>72 | NI<br>2<br>1           |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
|   | -<br>-<br>-                        |                |   |                                       |                 | NI                     |                             | From 35.46r                            | n to 35.                | 55m bgl:                                  | Recover                          | ed as stiff                        | grey clay   | 1.  |  |  |   |
|   | -                                  |                |   |                                       |                 |                        | 36.00-<br>37.50             |  |                         |   |                                  |                                    |   |   |  |  |   |
|   | -                                  |                |   |                                       |                 | NI                     |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
| -   | _                                  |                |   |                                       |                 | 0                      |                             |  |                         |   |                                  |                                    |   |   |  | -  |   |
| ļ   | -                                  |                |   |                                       | 100             | NI                     |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
|   | -                                  |                |   |                                       | 29              | 0<br>NI                |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
|   | _                                  |                |   |                                       |                 | 0                      |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
|   | -                                  |                |   |                                       |                 | CLAY                   |                             |  |                         |   | _                                |                                    |   |   |  | -  |   |
|   | _                                  |                |   |                                       |                 | NI                     | 37.50-                      | From 37.29r                            | n to $37.3$             | 38m bgl:                                  | Recovere                         | ed as stiff                        | grey clay   | /.  |  | -  |   |
| ovember 202                               | -<br>-<br>37.85                    |                | с   |                                       |                 | 10                     | 39.00                       |  |                         |   |                                  |                                    |   |   |  |  |   |
| Jate: 29 N                                | -<br>                              |                |   |                                       |                 |                        |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
| V1.3.GLB                                  | -                                  |                |   |                                       | 100<br>78<br>44 | 2                      |                             | From 38.21r                            | n bgl: Fr               | racture se                                | et 4 prese                       | ent: Unkn                          | own   |   |  |  |   |
| LIBRARY                                   | -                                  |                |   |                                       |                 | <u>NI</u><br>9         |                             | angular fine f                         | to coars                | e gravel o                                | of mudsto                        | one.                               |   |   |  |  |   |
| AGS 4_0                                   |                                    |                |   |                                       |                 | NI                     |                             |  |                         |   |                                  |                                    |   |   |  |  |   |
| ary: NZ I                                 | -                                  |                |   |                                       |                 |                        |                             |  |                         |   |                                  |                                    |   | -29.91  |  |  |   |
| -0G    Project: V11.1 NZ I GI.GPJ    LIBr |                                    |                |   |                                       |                 |                        |                             |  | <b>End</b><br>(Thio     | of Boreh<br>ckness of<br>not pro          | ole 39.00<br>f basal la<br>oven) | ) m<br>yer                         |   |   |  |  |   |
| HOLE                                      | Strike<br>Denth                    | Wate<br>Flow   | r Strikes<br>Remark                       | 6                                     | Hol<br>(mr      | Hole D<br>le Dia<br>m) | iamete<br>Depth<br>Hole (r  | r<br>of Date<br>m)                     | Progre<br>Time          | ess<br>Hole<br>Denth (m                   | Casing                           | Water                              | 1. Sonic/Rotar<br>Redcar. Locat   | Remain<br>y Core (SO/RC) bore<br>ed in the north west of<br>ion langestics Division   | rks<br>hole located in the Main<br>f Remediation Zone PR2  | Site area of Te  | esworks,  |
| NOR ID: SLANDARD CORE                     | - 5011                             |                |   |                                       | 146             | 3                      | 39.00                       | 14-09-2022<br>15-09-2022<br>20-09-2022 | 16:30<br>11:30<br>09:00 | 36.00<br>39.00<br>39.00                   | 36.00<br>39.00<br>39.00          | 1.30                               | <ol> <li>Joured Service</li> <li>Solver Service</li> <li>Solver Service</li> <li>Solver Service</li> <li>Topography</li> <li>Groundwate</li> <li>Slag and rei</li> <li>Stalled wit</li> <li>HDPE standpi</li> <li>standpipe at 1</li> </ol> | we inspection Pit tem<br>gress borehole via Sc<br>om bgl.<br>. Level Ground.<br>er strikes not observer<br>fractory material encc<br>phurous odour noted<br>h 35mm ID HPDE sta<br>born ID HPDE sta<br>.1.00m bgl (slo | Immated at 1.00m bgl on 1<br>ninc drilling,<br>onic drilling to 16.50m bg<br>d during drilling due to ad<br>untered in material reco<br>0.80-4.50m and 6.51-7.<br>Indpipe to 11.50 (slotted<br>tied 28.00-31.00m bg],<br>standpipe at 30.50m bgl | Idero stratum. Po<br>pl, and complete<br>Idition of flush w<br>vered from grou<br>15m bgl.<br>8.50-11.50m) a<br>Datalogger insta | d via Rotary<br>ater.<br>nd level to<br>nd 50mm ID<br>Illed in 35mm |
| r<br>P                                    | Notes:                             | For e          | xplanatio                                 | n of symbols an                       | d abbi          | reviati                | ons, se                     | e Key Sheet.                           | Sc                      | ale: 1:25                                 |                                  | L                                  | ogged By:   | KB  | Checked I  | ∃y: JW   |   |

| ΛΞ   |   | 101   |             |                               | М  | т  | Fol: 0113 301  | 6800   |   | Bore   | ehole  | No. F-E                                | 3H104  | 4                      |
|--|---|---|-------------|-------------------------------|--|--|--|--|---|--|--|--|--|------------------------|
| A  |   |   |             | City Walk<br>eeds<br>S11 9AR  |  | F  | Fax: 0113 391  | om   | AGS<br>REGISTERED USER 2022   | Sheet:   | 1 of 7   |  |  |                        |
| Equipment &<br>0.00 - 0.18 In<br>0.18 - 16.50 St<br>16.50 - 32.00 R  | Method<br>sulated Ha<br>onic Drilling<br>otary Coring | S:<br>nd Tools<br>(Hammer ID: GS08)<br>g (Hammer ID: GS08)  |             | Project<br>Project<br>Client: | Name: Net Ze<br>Location: Red<br>BP  | ero Teessic<br>Icar, North   | de Onshore<br>Yorkshire  | Ground In  | vestigation   | - Front End Eng  | ineering [   | Design (FEED)                          | Job No:<br>6067  | 8042                   |
|  |   |   |             | Co-ordi<br>E: 4569            | nates:<br>11.322   |  |  | Ground   | Level (m):  | 7.635 AOD  |  | Date Started:<br>Date Complete         | 16/08/2022<br>ed: 19/08/2  | 022                    |
| In Depth   | Situ Tes<br>Sample<br>Ref &                           | ting<br>Test Type   | Coring Info | N: 5256<br>ormation           | 41.198   | DES  | SCRIPTION  | 1  |   |  | Reduced<br>Level<br>(m)  | Legend                                 | Depth<br>(Thick)<br>(m)  | Backfill/<br>Instrumer |
| (m)<br>(m)<br>(m)<br>(m)<br>(m)<br>(m)<br>(m)<br>(m)   | ES<br>B<br>ES<br>B                                    | PiD = 18.1ppm         PID = 23.6ppm         PID = 65.4ppm         PID = 21.6ppm         PID = 18.7ppm         PID = 26.8ppm         PID = 18.1ppm         SPT(C) N=4         1,1/         1,1,1         PID = 22.7ppm         PID = 21.4ppm | SCR FI      | Run                           | MADE GRC<br>subrounded<br>coarse<br>(MADE GRC<br>From 0.73n<br>From 1.00n<br>MADE GRC<br>Coarse SAN<br>coarse of sl<br>(MADE GRC<br>CLAY. Grav<br>(MADE GRC<br>SAND with 1<br>slag. Gravel<br>slag<br>(MADE GRC<br>SAND with 1<br>slag. Gravel<br>slag. Gravel<br>slag. Sand i<br>(MADE GRC<br>subrounded<br>content. Col<br>coarse<br>(MADE GRC | DUND: Da<br>I fine to c<br>DUND<br>DUND: Da<br>ID. Grave<br>ag and re<br>DUND: Da<br>ID. Grave<br>ag and re<br>DUND: So<br>PUND: So<br>PUND: Da<br>high cobl<br>I is subar<br>DUND: Da<br>bibles are<br>DUND: Da | ark brown<br>coarse GR<br>rong organ<br>im bgl: Be<br>ark brown<br>el is suban<br>efractory n<br>oft pale ye<br>rounded of<br>ark brown<br>ble conter<br>ngular to s<br>emediation<br>oft pale ye<br>. Gravel is<br>coarse<br>ark brown<br>ble conter<br>ngular to s | nic odour<br>comes lig<br>novery gra<br>ngular to<br>material<br>ellowish t<br>of slag | r noted.<br>ght brown<br>velly silty<br>subround<br>prown slig<br>velly fine<br>es are sul<br>ed fine to<br><u>Bm AOD.</u><br>prown slig<br>ided fine to<br>slag with<br>ag. Sand | gular to<br>d is fine to<br>fine to<br>ed fine to<br>htly gravelly<br>to coarse of<br>coarse of<br>gular to<br>high cobble<br>is fine to | <ul> <li>6.14</li> <li>5.25</li> <li>4.88</li> <li>4.43</li> <li>4.14</li> </ul> |  | (m)<br>(1.50)<br>(1.50)<br>(1.50)<br>(1.50)<br>(1.50)<br>(0.89)<br>(0.89)<br>(0.37)<br>(0.37)<br>(0.37)<br>(0.45)<br>(0.29)<br>(0.37)<br>(0.29)<br>(0.37)<br>(0.29)<br>(0.37)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>(0.29)<br>( |                        |
|  |   | 16,9 for 20mm/<br>21,20,9 for<br>28mm   |             |                               |  |  |  |  |   |  |  |  |  |                        |
| Wate   | r <u>Stri</u> kes                                     | <br>s   | Hole        | <br>Diamete                   | r  | Progre   | ess  |  |   |  | Rema   | KXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX |  |                        |
| Strike       Flow Remarks       Hole Dia (mm)       Depth of Hole (m)       Date       Time       Hole Depth (m)       Casing Depth (m)       Water (mm)       1. Sonic/Rotary Core (SO/RC) borehole located in the Main Site area of Teesworks, Redcar. Located in the south east of Remediation Zone PR2A.         Lepth       Insp. Pit       0.18       16-08-2022       17:00       0.18       Unit of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in the function of the terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in the terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in the terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in the terminated at 10.03 method in terminated at 10.03 method in terminated at 10.03 method in tereminated at 10.03 method in tereminated at 10.03 meth |   |   |             |                               |  |  |  |  |   |  |  |  |  |                        |
| Notes: For e   | volanativ   | on of symbols an  | 1 abbrevia  | tions se                      | e Key Sheet  | Sc   | cale: 1:25   |  |   | ogged By: RB   |  | Checked E                              | By: JW   |                        |

| ΛΞ   | -   | 5   | 4                    | AE<br>5th         |                                   | M   | т  | صار مار مار مار مار مار مار مار مار مار م             | 6800                                |  | Bo   | orehole   | e No. F-I  | 3H10  | 4  |
|--|---|---|----------------------|-------------------|-----------------------------------|---|--|---|-------------------------------------|--|--|---|--|---|--|
|  |   |   |                      | 2 C<br>Lee<br>LS1 | ity Walk<br>ds<br>119AR           |   | F.<br>W  | ax: 0113 39<br>ww.aecom.c                             | 0000<br>1 6899<br>com               | AGS<br>REGISTERED USER 202             | n She  | et: 2 of 7  |  |   |  |
| Equipment 8<br>0.00 - 0.18 Ir<br>0.18 - 16.50 S<br>16.50 - 32.00 F | NIETNOC<br>Insulated Ha<br>Sonic Drilling<br>Rotary Corin | I <b>S:</b><br>nd Tools<br>g (Hammer ID: GS08)<br>g (Hammer ID: GS08) |                      | F                 | Project  <br>Project  <br>Client: | Name: Net Ze<br>Location: Red<br>BP                                   | ro Teessid<br>car, North   | ie Onsnore<br>Yorkshire                               | Ground Ir                           | nvestigation                           | - Front End  | Engineering   | Design (FEED)  | 500 003<br>6067   | 8042   |
|  |   |   |                      | C<br>E<br>N       | Co-ordir<br>E: 4569<br>N: 5256    | nates:<br>11.322<br>41.198  |  |   | Ground                              | d Level (m):                           | 7.635 A  | OD  | Date Started:<br>Date Complete   | 16/08/202:<br>ed: 19/08/2   | 2<br>2022  |
| In<br>Depth<br>(m)   | Situ Tes<br>Sample<br>Ref &                               | Test Type   | Coring<br>TCR<br>SCR | Infor             | mation<br>Core<br>Run             |   | DES  | SCRIPTION   | 1                                   |  |  | Reduced<br>Level<br>(m)   | Legend   | Depth<br>(Thick)<br>(m)   | Backfill<br>Instrume                                   |
| 5.00<br>-<br>- 5.30- 6.00<br>- 5.30<br>                            | B<br>D  | PID = 16.1ppm<br>PID = 15.0ppm  |                      |                   | -                                 | Medium der<br>slightly grav<br>fragments. (<br>(TIDAL FLA)            | ise light l<br>ely fine to<br>Gravel is<br><b>T DEPOS</b>        | brown mo<br>o coarse<br>fine to m<br>SITS)            | ottled gre<br>SAND w<br>edium of    | ey slightly<br>ith occasi<br>f mudston | clayey<br>onal shell<br>e  | 2.36  |  | 5.28<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-               |  |
| -<br>-<br>- 6.00- 6.70<br>-<br>-<br>-<br>-                         | B<br>ES<br>SS   | PID = 14.6ppm<br>SPT(S) N=20<br>4,2/<br>5,4,6,5                       |                      |                   | -                                 | Medium der<br>(TIDAL FLA<br>From 6.00rr<br>longer prese               | use light l<br><b>T DEPOS</b><br>en bgl: Gra<br>ent.             | brown mo<br>SITS)<br>avel, clay                       | ottled gre                          | ey fine to c                           | coarse SA<br>nts no  | 1.64  |  | -<br>-<br>-<br>-<br>-<br>-  |  |
| -<br>6.75<br>- 6.80- 7.50<br>-<br>-<br>-<br>-                      | D<br>B  | PID = 11.7ppm   |                      |                   |                                   |   |  |   |                                     |  |  |   |  | -   |  |
| -<br><b>7.50</b> - 8.20<br>-<br>-                                  | В   | SPT(S) N=27<br>3,4/<br>6,6,7,8  |                      |                   |                                   | From 7.50m<br>occasional s  | n bgl: Ab<br>shell frag  | undant b<br>ments pr                                  | lack orga<br>esent.                 | anic specs                             | and  |   |  | -<br>-<br>-<br>- (3.56)   |  |
| -<br>  | D<br>B  | PID = 10.8ppm   |                      |                   |                                   |   |  |   |                                     |  |  |   |  | -<br>-<br>-<br>-<br>-   |  |
| -<br>-<br>-<br>-<br>-<br>9.25<br>-                                 | B   | PID = 11.8ppm<br>SPT(S) N=27<br>1,2/<br>5,6,7,9                       |                      |                   |                                   |   |  |   |                                     |  |  |   |  | -<br>-<br>-<br>-<br>-   |  |
| 9.56- 9.95<br>9.60<br>9.75<br>9.95- 10.50                          | B<br>ES<br>D<br>B   |   |                      |                   | -                                 | Very dense<br>to coarse SA<br>subrounded<br>mudstone a<br>(TIDAL FLA) | light brow<br>AND with<br>to round<br>nd sands<br><b>T DEPOS</b> | wn mottle<br>abundar<br>led fine to<br>stone<br>SITS) | d dark b<br>nt shell fr<br>o mediun | rown very<br>agments.<br>n of quartz   | r gravelly f<br>Gravel is<br>zite  | -1.93   |  | 9.56<br>-<br>-<br>-   |  |
| Wate   | er Strikes  | 3<br>8  | H                    |                   | iameter                           | r<br>of Dete  | Progre   | ess   | Capira                              | Water                                  | 1. Sonic/Rotan   | Core (SO/RC) bo   | arks   | Site area of To   | esworks  |
| Strike Flow  | v kemar   | KS  | (mm                  | שוע פ<br>ו)       | Hole (n                           | n)  | lime   | Depth (m  | ) Depth (m                          | vvater<br>i) Depth (m)                 | Redcar. Locate<br>2. Buried Servic<br>granted to prog<br>3. SO/RC borel<br>Coring to 32.00<br>4. Topography:<br>5. Groundwater<br>6. Slag encount<br>noted in materia<br>7. Borehole bac | d in the south east<br>a Inspection Pit te<br>ress borehole via S<br>nole advanced via<br>m bgl.<br>Level Ground.<br>strikes not observ<br>ered in material re<br>a recovered from (<br>kfilled with benton | or Remediation Zone PR<br>minated at 0.18m bgl on<br>Sonic drilling.<br>Sonic drilling to 16.50m bg<br>ed during drilling due to at<br>covered from ground leve<br>7.73m to 1.50m bgl.<br>ite pellets and arisings upo | Alter and of TE<br>2A.<br>hard stratum. F<br>and complet<br>Idition of flush v<br>to 5.28m bgl.<br>on completion. | lermission<br>ed via Rotary<br>vater.<br>Organic odour |
| Notos: For o   | volanati  | on of symbols an  | d abbre              | eviatio           | ons. see                          | e Kev Sheet   | Sc   | l<br>ale: 1:25  | 1                                   |  | Logged By:   | RB  | Checked  | By: JW  |  |

| A  | C  | <b>CON</b>   |                      | 5th<br>2 C<br>Lee | Floor<br>Floor<br>ity Walk                          | M<br>Tel: 0113 391<br>Fax: 0113 391<br>www.aecom.cr  | 6800<br>6899<br>om AGS   | Bore                             | hole                    | No. F-E                        | 3H104   | 4   |
|--|--|--|----------------------|-------------------|---|--|--|----------------------------------|-------------------------|--------------------------------|---|---|
| Equipment 8<br>0.00 - 0.18 li<br>0.18 - 16.50 S<br>16.50 - 32.00 F   | Method<br>Insulated Ha<br>Ionic Drilling<br>Itotary Coring                                     | <b>Is:</b><br>nd Tools<br>g (Hammer ID: GS08)<br>g (Hammer ID: GS08)   |                      |                   | <u>119AR</u><br>Project I<br>Project I<br>Client: E | Name: Net Zero Teesside Onshore<br>Location: Redcar, North Yorkshire<br>BP                                   | REGISTERED VERY ANZ  | Front End Eng                    | ineering De             | esign (FEED)                   | Job No:<br>6067   | 8042  |
|  |  |  |                      | )<br> <br>        | Co-ordir<br>E: 4569<br>N: 5256                      | nates:<br>)11.322<br>)41.198   | Ground Level (m):  | 7.635 AOD                        |                         | Date Started:<br>Date Complete | 16/08/2022<br>ed: 19/08/2   | 2   |
| In<br>Depth<br>(m)   | Situ Tes<br>Sample<br>Ref &  | ting<br>Test Type<br>and Result  | Coring<br>TCR<br>SCR | Infor<br>FI       | mation<br>Core<br>Run                               | DESCRIPTION  |  |                                  | Reduced<br>Level<br>(m) | Legend                         | Depth<br>(Thick)<br>(m)   | Backfill/<br>Instrument   |
| 10.00<br>10.25<br>10.25<br>10.50- 11.20<br>10.50- 11.20<br>11.00<br>11.25<br>11.30- 12.00<br>11.25<br>11.30- 12.00<br>11.20<br>11.60<br>12.00- 12.70<br>12.00 12.70<br>13.00<br>13.00<br>14.25<br>13.00<br>14.20<br>14.00<br>14.25<br>13.00<br>14.20<br>14.00<br>14.30- 15.00<br>14.30- 15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15.00<br>15. | D<br>B<br>D<br>B<br>D<br>B<br>SS<br>D<br>B<br>SS<br>D<br>B<br>B<br>SS<br>D<br>B<br>B<br>B<br>B | PID = 11.3ppm         SPT(S) N> 50         1,2/ 2,6,10,32         for 70mm         PID = 10.0ppm         SPT(S) N> 50         9,16 for 67mm/         22,28 for 72mm         PID = 11.6ppm         SPT(S) N>50         11,14 for         60mm/ 27,23         for 65mm         PID = 11.8ppm |                      |                   |   | From 11.50m to 11.70m bgl: I<br>abundant shell fragments.<br>From 12.30m to 12.51m bgl: I<br>fine to coarse. | ghtly gravelly and s<br>Becomes very grav<br>Becomes gravelly. | shell<br>relly with<br>Gravel is | -7.37                   |                                | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>- |   |
| Water Strikes       Hole Diameter       Progress       Remarks         Strike       Flow Remarks       Hole Dia       Depth of Hole (m)       Date       Time       Hole Casing Depth (m)       Depth (m)       Depth (m)       Sonic/Rotary Core (SORC) borehole located in the Main Site a granted to progress borehole was of Remarks         0       0       Hole (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Sonic/Rotary Core (SORC) borehole located in the Main Site a granted to progress borehole was of Remarks         0       0       Hole (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Sonic/Rotary Core (SORC) borehole located in the Main Site a granted to progress borehole advanced was sonic drilling.         3       SO/RC borehole advanced was Sonic drilling.       Source Sonehole advanced was Sonic drilling.       Source Sonehole advanced was Sonic drilling.         6       Super Sonehole advanced was Sonic drilling.       Source Sonehole advanced was Sonic drilling.       Source Sonehole advanced was Sonic drilling.         6       Super Sonehole advanced was sonic drilling.       Source Sonehole advanced was sonic drilling.       Source Sonehole advanced was sonic drilling.         6       Super Sonehole advanced was sonic drilling.       Source Sonehole advanced was sonic drilling.       Source Sonehole advanced was sonic drilling.         7       Borehole backfilled with bentonit   |  |  |                      |                   |   |  |  |                                  |                         |                                |   | esworks,<br>ermission<br>ud via Rotary<br>vater.<br>Organic odour |
| Notes: For e   | xplanatio  | on of symbols and  | d abbre              | eviatio           | ons, see  | e Key Sheet. Scale: 1:25   |  | ogged By: RB                     |                         | Checked E                      | By: JW  |   |

|          | AE                               | C                            | <b>O</b>                                |           | <b>A</b><br>5th<br>2 C | ECO<br>Floor<br>City Walk | M             |           | Tel: 0113 391<br>Fax: 0113 39 | 6800<br>1 6899       | AGS                 | В                               | orehole   | e No                              | . F-E  | 3H10                                 | 4                       |
|----------|----------------------------------|------------------------------|---|-----------|------------------------|---------------------------|---------------|-----------|-------------------------------|----------------------|---------------------|---------------------------------|---|-----------------------------------|--|--------------------------------------|-------------------------|
|          |                                  |                              |   |           | LS                     | 11 9AR                    |               |           | www.aecom.c                   |                      | REGISTERED USER 2   | She                             | eet: 4 of 7   |                                   |  |                                      |                         |
|          | Equipment &                      | Method                       | S:                                      |           |                        | Project                   | Name: Net Ze  | ro Teess  | side Onshore                  | Ground Ir            | vestigatior         | n - Front En                    | d Engineering   | Design (                          | (FEED)   | Job No:                              |                         |
|          | 0.00 - 0.18 In<br>0.18 - 16.50 S | sulated Har<br>onic Drilling | I (Hammer ID: GS08)                     |           |                        | Project                   | Location: Red | car, Norl | th Yorkshire                  |                      |                     |                                 |   |                                   |  | 6067                                 | 8042                    |
|          | 16.50 - 32.00 R                  | otary Coring                 | g (Hammer ID: GS08)                     |           |                        | Client:                   | BP            |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
|          |                                  |                              |   |           |                        | Co-ordi                   | nates:        |           |                               | Ground               | Level (m):          | 3 005 /                         |   | Date                              | Started:   | 16/08/2022                           | 2                       |
|          |                                  |                              |   |           |                        | L: 4308<br>N: 5256        | 541.198       |           |                               |                      |                     | 7.035 F                         | AOD   | Date                              | Complete   | ed: 19/08/2                          | 022                     |
|          | In                               | Situ Tes                     | ting                                    | Corin     | g Infor                | mation                    |               |           |                               |                      |                     |                                 | Reduce  | d                                 |  | Depth                                | Backfill/               |
|          | Depth                            | Sample                       | Test Type                               | TCR       | FI                     | Core                      |               | D         | ESCRIPTION                    | 1                    |                     |                                 | (m)   | L                                 | egend  | (Thick)<br>(m)                       | Instrument              |
|          | (m)                              | Туре                         | and Result                              | RQD       |                        | Run                       |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
|          | - 1 <b>3.00-</b> 13.50           |                              | SPT(S) N=29                             |           |                        |                           | Firm locally  | stiff gre | eyish brow                    | n mottled            | light grey          | y slightly                      |   |                                   |  | -                                    |                         |
|          | _                                |                              | 3,4/                                    |           |                        |                           | subrounded    | fine to   | medium o                      | f sandsto            | one and n           | nudstone.                       |   | [                                 |  | -                                    |                         |
|          | _                                |                              | .,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, |           |                        |                           | Sand is fine  | to coa    | rse                           |                      |                     |                                 |   |                                   |  | -                                    |                         |
|          | -                                |                              |   |           |                        |                           | (TILL: DEVE   | NSIAN     | I)                            |                      |                     |                                 |   | E                                 |  | -                                    |                         |
|          | -15.50- 16.00                    | в                            |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  | <b>-</b>                             |                         |
|          | 15.50                            | D                            |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | ┣                                    |                         |
|          | -                                | 50                           |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | -                                    |                         |
|          | - 15.75                          | ES                           |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | 1                                 |  | -                                    |                         |
|          | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | E                                 |  | ┠│                                   |                         |
|          | <b>—16.00-</b> 16.50             | В                            | PID = 9.8ppm                            |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | ┝│                                   |                         |
|          | F                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | 1                                 |  | ┠│                                   |                         |
|          | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | ┠│                                   |                         |
|          | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | ┠│                                   |                         |
|          | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  |                                      |                         |
|          | _                                |                              |   |           |                        | 16.50-                    |               |           |                               |                      |                     |                                 |   | [- <u>-</u> -                     |  |                                      |                         |
|          | -                                |                              |   |           |                        | 17.50                     |               |           |                               |                      |                     |                                 |   | 1                                 |  |                                      |                         |
|          | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  |                                      |                         |
|          | - 16.80- 17.00                   | C                            |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
|          |                                  |                              |   | 100       |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
|          |                                  |                              |   | 0         |                        |                           |               |           |                               |                      |                     |                                 |   | [- <u>-</u> -                     |  | [                                    |                         |
|          | _                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
|          | _                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u>[</u>                          |  |                                      |                         |
|          | _                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
|          | _                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
| 322      | _                                |                              |   |           |                        | 17.50-<br>19.00           | From 17 50    | m to 10   | 0.01m hal                     | Pagama               |                     | off                             |   | [                                 |  | -                                    |                         |
| er 2(    | _                                |                              |   |           |                        |                           |               |           | 9.0411 byl.                   | Decome               | s locally s         | SOIL.                           |   |                                   |  | -                                    |                         |
| emb      | 17 93 19 03                      | C                            |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | E                                 |  | -                                    |                         |
| Nov      | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  | -                                    |                         |
| e: 29    | _                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  | $\vdash$                             |                         |
| Dat      | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | -                                    |                         |
| B        | -                                |                              |   | 100       |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  | - (6.44)                             |                         |
| Э.G      | -                                |                              |   | Ő         |                        |                           |               |           |                               |                      |                     |                                 |   | E                                 |  | -                                    |                         |
| ۲ ۲      | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | -                                    |                         |
| ZAR.     | _                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  | ┣ │                                  |                         |
| LIBF     | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | -                                    |                         |
| 4        | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | ┠│                                   |                         |
| 4GS      | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | ┠│                                   |                         |
| IZT /    | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | ┠│                                   |                         |
| Z<br>Z   | -                                |                              |   |           | ULAY                   | 19.00-                    |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | ┢╵                                   |                         |
| -ibra,   | +                                |                              |   |           |                        | 20.50                     |               |           |                               |                      |                     |                                 |   | 1                                 |  |                                      |                         |
| ן ד<br>ר | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | ┠│                                   |                         |
| Ъ.       | F                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | <b> </b>                             |                         |
| ZT G     | F                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  |                                      |                         |
| 1 NZ     | <u> </u>                         |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | [                                 |  | ┢╵                                   |                         |
| V11.     | F                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | <u> </u>                          |  | <b> </b>                             |                         |
| sct:     | F                                |                              |   | 100<br>0  |                        |                           | From 19.62    | m bal:    | Occasiona                     | l coarse             | gravel pr           | esent.                          |   | <u> </u>                          |  |                                      |                         |
| Proj     | -                                |                              |   | 0         |                        |                           |               | 3.7       |                               |                      | <b>.</b>            |                                 |   | [                                 |  |                                      |                         |
| 0        | -                                |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   | 1                                 |  |                                      |                         |
| ĒLC      | Wate                             | r Strikes                    | \$                                      | <u> </u>  | Hole D                 | iamete                    | r             | Proç      | gress                         |                      |                     |                                 | Rem   | arks                              |  |                                      |                         |
| HOL      | Strike Flow<br>Depth             | Remark                       | ks                                      | Ho<br>(mr | le Dia<br>m)           | Depth<br>Hole (           | of Date<br>m) | Time      | Hole<br>Depth (m              | Casing<br>) Depth (m | Water<br>) Depth (m | 1. Sonic/Rotar<br>Redcar. Locat | ry Core (SO/RC) bo<br>ted in the south east<br>rice Inspection Dit to | rehole locate<br>of Remedia       | ed in the Main<br>ition Zone PR2<br>0.18m bol on 5 | Site area of Te<br>A.                | esworks,                |
| ORE      |                                  |                              |   | 194       | 1                      | 16.50                     | 17-08-2022    | 2 17:30   | 16.50                         | 16.50                | 5.60                | granted to pro<br>3. SO/RC bor  | gress borehole via s<br>ehole advanced via                            | Sonic drilling.<br>Sonic drilling | u. rom by on h<br>1 to 16.50m bo                   | iaru stratum. P                      | ed via Rotarv           |
| SD C     |                                  |                              |   |           |                        |                           |               |           |                               |                      |                     | Coring to 32.0<br>4. Topography | 0m bgl.<br>/: Level Ground.   | o animiy                          | , <i>s</i> .com by                                 | ., 00.11piete                        |                         |
| IDAF     |                                  |                              |   |           |                        |                           |               |           |                               |                      |                     | 5. Groundwate<br>6. Slag encou  | er strikes not observ<br>ntered in material re                        | ed during dri<br>covered from     | illing due to ad<br>n ground level                 | dition of flush w<br>to 5.28m bgl. ( | /ater.<br>Drganic odour |
| STAN     |                                  |                              |   |           |                        |                           |               |           |                               |                      |                     | 7. Borehole ba                  | nal recovered from<br>ackfilled with benton                           | u.73m to 1.5<br>ite pellets an    | um bgl.<br>nd arisings upo                         | n completion.                        |                         |
| Ü.       |                                  |                              |   |           |                        |                           |               |           |                               |                      |                     |                                 |   |                                   |  |                                      |                         |
| sport    | Noto: 5                          | mle :: P                     |   |           |                        |                           |               | <u> </u>  | <br>Scale: 1:25               |                      | <u> </u>            | Logged Bv:                      | RB  |                                   | Checked F  | By: JW                               |                         |
| Å        | Notes: For ea                    | kpianatio                    | on of symbols an                        | a abbi    | eviati                 | ons, se                   | e Key Sheet.  |           |                               |                      | [                   |                                 |   |                                   |  | 2 ····                               |                         |

|                    | ΔΞ                                |                             | <b>O</b>                               | 1                 | <b>A</b><br>5th        | ECO                         | M   | Tel: 0<br>Fax: (              | )113 391 6<br>0113 391             | 5800<br>6899               |                             | B  | lore  | hole   | No. F-l   | 3H10   | 4   |
|--------------------|-----------------------------------|-----------------------------|--|-------------------|------------------------|-----------------------------|---|-------------------------------|------------------------------------|----------------------------|-----------------------------|--|---|--|---|--|---|
|                    |                                   |                             |  |                   | Lee                    | eds<br>11 9AR               | · · · · · · · · · · · · · · · · · · ·   | www.a                         | aecom.co                           | m                          | AGD<br>REGISTERED USER 2022 | , Sh   | ieet: 5   | of 7   | ()  |  |   |
| 0.                 | Equipment &                       | Methods                     | s:<br>d Tools                          |                   |                        | Project<br>Project          | Name: Net Zero Tee  | esside O                      | )nshore (                          | Ground Inv                 | estigation                  | - Front Er   | nd Engi   | ineering D   | esign (FEED)  | Job No:  | 8042  |
| 0.                 | .18 - 16.50 So<br>6.50 - 32.00 Ro | nic Drilling<br>tary Coring | (Hammer ID: GS08)<br>(Hammer ID: GS08) |                   |                        | Client:                     | BP  |                               | Karine                             |                            |                             |  |   |  |   | 0007   | 0042  |
|                    |                                   |                             |  |                   |                        | Co-ordi<br>E: 4569          | inates:<br>911.322  |                               |                                    | Ground                     | Level (m):                  | 7 635  |   |  | Date Started:   | 16/08/2022   | 2   |
|                    | In S                              | Situ Test                   | ing                                    | Corin             |                        | N: 5256                     | 641.198   |                               |                                    |                            |                             | 1.000  |   | Reduced  | Date Complete   | ed: 19/08/2  | 022<br>Backfill/  |
|                    | Depth<br>(m)                      | Sample<br>Ref &<br>Type     | Test Type<br>and Result                | TCR<br>SCR<br>RQD | FI                     | Core<br>Run                 |   | DESCR                         | RIPTION                            |                            |                             |  |   | Level<br>(m)   | Legend  | (Thick)<br>(m)   | Instrument  |
| -                  | 20.21- 20.46                      | С                           |  |                   |                        |                             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
|                    |                                   |                             |  | 100<br>0          |                        | 20.50-22.00                 |   |                               |                                    |                            |                             |  |   |  |   |  |   |
|                    | 21.80                             | ES                          |  |                   |                        |                             | Weak friable blui<br>Locally recovered<br>(REDCAR MUDS  | sh grey<br>l as gra<br>TONE l | y thinly<br>avel or<br><b>FORM</b> | laminate<br>clay<br>ATION) | d MUDS                      | TONE.  |   | -13.81   |   | 21.44  |   |
|                    | 22.10                             | С                           |  |                   | NI                     | 22.00-<br>23.50             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
| : 29 November 2022 |                                   |                             |  | 100<br>11<br>11   | 0                      |                             | At 22.51m bgl: 6  | 0mm p                         | oyrite rid                         | ch band.                   |                             |  |   |  |   |  |   |
| 1.3.GLB    Dat     |                                   |                             |  |                   | NI                     |                             | From 22.95m bg<br>At 23.22m bal: 5  | l: Becc<br>cm pvr             | omes lo<br>rite rich               | band.                      | ong.                        |  |   |  |   |  |   |
|                    |                                   |                             |  |                   | 6                      | 23.50-<br>25.00             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
| NZT AGS 4_(        |                                   |                             |  |                   | NI                     |                             | From 23.78m bg  | I: Becc                       | omes p                             | ale grey.                  |                             |  |   |  |   |  |   |
| PJ    Library:     |                                   |                             |  | 100<br>49         | 0                      |                             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
|                    |                                   |                             |  | 38                | NI                     |                             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
| roject: V11.       |                                   |                             |  |                   | 0<br>NI<br>0           |                             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
|                    |                                   |                             |  |                   | NI                     |                             |   |                               |                                    |                            |                             |  |   |  |   |  |   |
|                    | Water<br>Strike Flow<br>Depth     | Strikes                     | s                                      | Hol<br>(mr        | Hole D<br>le Dia<br>n) | Diamete<br>Depth<br>Hole (I | er Profiles | ogress<br>Hc<br>De            | ole<br>epth (m)                    | Casing<br>Depth (m)        | Water<br>Depth (m)          | 1. Sonic/Rota<br>Redcar. Loca<br>2. Buried Sea<br>granted to pr<br>3. SO/RC bo<br>Coring to 32.<br>4. Topograp<br>5. Groundwa<br>6. Slag encoi<br>noted in mate<br>7. Borehole b | any Core (;<br>ated in the<br>vice Inspe<br>ogress bo<br>rehole ad<br>00m bgl.<br>ny: Level C<br>ter strikes<br>untered in<br>erial recov<br>packfilled v | Remar<br>SO/RC) borel<br>south east of<br>action Pit term<br>rehole via So<br>vanced via So<br>Ground.<br>not observed<br>material reco<br>ered from 0.7<br>with bentonite | ks<br>hole located in the Main<br>Remediation Zone PR<br>innated at 0.18m bgl on<br>nic drilling.<br>I during to 16.50m bgl.<br>I during drilling due to a<br>vereaf from ground leve<br>'3m to 1.50m bgl.<br>pellets and arisings upp<br>Chacked | Site area of Ter<br>2A.<br>hard stratum. P<br>and complete<br>dition of flush w<br>to 5.28m bgl. C<br>on completion. | asworks,<br>ermission<br>vd via Rotary<br>vater.<br>Jrganic odour |
| Ϋ́                 | Notes: For ex                     | planatio                    | n of symbols an                        | id abbr           | reviati                | ons, se                     | e Key Sheet.  | Jocale:                       | 1.20                               |                            | [L                          | оууси БУ:  | 170   |  | Checked   | y. Jvv   |   |

|               | Δ   | =/   | <b>'</b>   | A                    | <b>A</b><br>5th | ECO<br>Floor                  | М   | Tel: 0113 39'                 | 6800                           |   | Bore  | ehole  | No. F-I  | 3H104  | 4   |
|---------------|---|--|--|----------------------|-----------------|-------------------------------|---|-------------------------------|--------------------------------|---|---|--|--|--|---|
|               |   |  |  |                      | 2 C<br>Le<br>LS | City Walk<br>eds<br>11 9AR    | <   | Fax: 0113 39<br>www.aecom.o   | 1 6899<br>com                  | AGS<br>REGISTERED USER 2022   | Sheet:  | 6 of 7   |  |  |   |
|               | Equipment<br>0.00 - 0.18<br>0.18 - 16.50<br>16.50 - 32.00 | Insulated Han<br>Sonic Drilling<br>Rotary Coring | S:<br>Id Tools<br>(Hammer ID: GS08)<br>I (Hammer ID: GS08) |                      |                 | Project<br>Project<br>Client: | : Name: Net Zero Tee<br>: Location: Redcar, N<br>BP | esside Onshore                | e Ground In                    | vestigation - F   | -ront End Eng   | Jineering De   | esign (FEED)   | Job No:<br>6067  | 8042  |
|               |   |  |  |                      |                 | Co-ordi<br>E: 4569<br>N: 5256 | inates:<br>911.322<br>641.198                       |                               | Ground                         | Level (m):<br>7   | .635 AOD  |  | Date Started:<br>Date Complete   | 16/08/2022<br>ed: 19/08/2  | 022   |
| -             | Depth<br>(m)  | In Situ Test<br>Sample<br>Ref &<br>Type          | ting<br>Test Type<br>and Result                            | Corine<br>TCR<br>SCR | g Info          | rmation<br>Core<br>Run        |   | DESCRIPTION                   | N                              |   |   | Reduced<br>Level<br>(m)  | Legend   | Depth<br>(Thick)<br>(m)  | Backfill/<br>Instrument   |
| -             | -   | Туре   |  |                      | 0               | 25.00-<br>26.50               |   |                               |                                |   |   |  |  |  |   |
| -             | -   |  |  |                      |                 |                               |   |                               |                                |   |   |  |  |  |   |
| Ī             | 25.52   | с  |  |                      |                 |                               |   |                               |                                |   |   |  |  |  |   |
|               | -   |  |  | 100<br>4             |                 |                               |   |                               |                                |   |   |  |  |  |   |
|               | -   |  |  |                      | NI              |                               |   |                               |                                |   |   |  |  |  |   |
|               | -   |  |  |                      |                 |                               |   |                               |                                |   |   |  |  |  |   |
| -             | -   |  |  |                      |                 |                               |   |                               |                                |   |   |  |  |  |   |
|               |   |  |  |                      |                 | 26.50-                        |   |                               |                                |   |   |  |  |  |   |
|               | -   |  |  |                      | 0               | 20.00                         |   |                               |                                |   |   |  |  | -(10.56)   |   |
|               | -   |  |  |                      | NI              |                               |   |                               |                                |   |   |  |  | -  |   |
|               | -   |  |  | 100                  | 0               |                               |   |                               |                                |   |   |  |  |  |   |
|               | -   |  |  | 57<br>43             | NI              |                               |   |                               |                                |   |   |  |  |  |   |
| 22            | _   |  |  |                      | _               |                               |   |                               |                                |   |   |  |  | -  |   |
| ember 20      | -   |  |  |                      | 5               |                               |   |                               |                                |   |   |  |  |  |   |
| : 29 Nove     | -   |  |  |                      | NI<br>0         |                               |   |                               |                                |   |   |  |  |  |   |
| B    Date     | -   |  |  |                      | NI              | 28.00-<br>29.50               | From 28.00m bg                                      | I: Becomes                    | bluish gre                     | у.  |   |  |  |  |   |
| V1.3.GL       | -   |  |  |                      | 0               | -                             |   |                               |                                |   |   |  |  |  |   |
| IBRARY        | <br>-   |  |  |                      |                 |                               |   |                               |                                |   |   |  |  | -  |   |
| 3S 4_0 L      | -   |  |  | 100<br>13<br>7       |                 |                               | From 28.57m bg                                      | I: Becomes                    | brown mo                       | ttled grey.   |   |  |  |  |   |
| /: NZT A(     | -   |  |  |                      | NI              |                               |   |                               |                                |   |   |  |  |  |   |
| Library       | -   |  |  |                      |                 |                               |   |                               |                                |   |   |  |  |  |   |
| r gi.gp.)     | -   |  |  |                      |                 |                               |   |                               |                                |   |   |  |  |  |   |
| 11.1 NZ1      | -   |  |  |                      |                 | 29.50-<br>31.00               |   |                               |                                |   |   |  |  |  |   |
| roject: V     | -   |  |  |                      | CLAY            |                               | From 29.86m to                                      | 29.87m bgl:                   | Soft brow                      | n gravelly s  | sandy   |  |  |  |   |
| LOG    P      | -   | ator Strikoo                                     |  |                      |                 | liomoto                       | CLAY. Gravel is a mudstone. Sand                    | angular to su<br>is medium to | bangular<br>coarse.            | fine to mec   | lium of   | Bomork   | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~  |  |   |
| DARD COREHOLE | Strike Fle<br>Depth                                       | ow Remark  | SS ST  | Hol<br>(mr           | n)              | Depth<br>Hole (               | a File File File File File File File File           | Hole<br>Depth (m<br>0 29.50   | Casing<br>) Depth (m)<br>29.50 | Water 1.3<br>Depth (m) 2.1<br>5.60 3.1<br>Co<br>4.3<br>Co<br>4.3<br>Co<br>6.5 | Sonic/Rotary Core<br>dcar. Located in th<br>Buried Service Insp<br>anted to progress b<br>SO/RC borehole a<br>boring to 32.00m bgl<br>Topography: Level<br>Groundwater strike<br>Slag encountered i | (SO/RC) boreh<br>e south east of<br>pection Pit termi<br>orehole via Son<br>dvanced via Sor<br>Ground.<br>s not observed<br>n material recov | IS<br>ole located in the Main<br>Remediation Zone PR<br>nated at 0.18m bgl on<br>ic drilling.<br>nic drilling to 16.50m b<br>during drilling due to as<br>rered from ground leve | Site area of Ter<br>2A.<br>hard stratum. Po<br>gl, and complete<br>Idition of flush w<br>I to 5.28m bgl. C | esworks,<br>ermission<br>d via Rotary<br>ater.<br>Drganic odour |
| ort ID: STAN  |   |  |  |                      |                 |                               |   |                               |                                | 7.  | ted in material reco<br>Borehole backfilled   | wered from 0.73<br>with bentonite  | om to 1.50m bgl.<br>pellets and arisings up  | on completion.   |   |
| Rep           | Notes: For  | explanatio                                       | n of symbols ar  | nd abbr              | reviati         | ons, se                       | e Key Sheet.  | Scale: 1:25                   |                                | Log   | ged By: RB  |  | Checked  | By: JW   |   |

| Employee         List Jobs         Processor         Difference         Difference<  | A   |  | C  | <b>O</b>  |                  | 5th<br>2 C<br>Lee           | ECON<br>Floor<br>City Walk                    | И                                     | T<br>F<br>V            | Fel: 0113 391<br>Fax: 0113 391<br>www.aecom.c | 6800<br>6899<br>om              | AGS                                |  | Bore  | ehole  | e No.  | F-E   | 3H10   | 4   |                                   |
|--|---|--|--|---|------------------|-----------------------------|---|---------------------------------------|------------------------|---|---------------------------------|------------------------------------|--|---|--|--|---|--|---|-----------------------------------|
| United by the set of | Equip:<br>0.00 - 0<br>0.18 - 1<br>16.50 - 3 | ment &<br>0.18 Ins<br>16.50 So<br>12.00 Ro | Methods<br>ulated Han<br>nic Drilling<br>tary Coring | 5:<br>d Tools<br>(Hammer ID: GS08)<br>(Hammer ID: GS08) |                  | LS                          | 11 9AR<br>Project I<br>Project I<br>Client: I | Name: Net Zer<br>Location: Redo<br>BP | o Teessic<br>ar, North | de Onshore<br>Yorkshire                       | Ground In                       | REGISTERED USER 202<br>Vestigation | - Front  | End Eng   | yineering [  | Design (F  | EED)  | Job No:<br>6067  | 7804  | 2                                 |
| Water Share         Hole Cannot Share         Description Share         Descrip share         Description Share         Des  |   |  |  |   |                  |                             | Co-ordir<br>E: 4569                           | nates:<br>11.322<br>41.198            |                        |   | Ground                          | Level (m):                         | 7.635  | AOD   |  | Date S   | Started:<br>Complete  | 16/08/2022<br>ed: 19/08/2  | 2<br>2022                                       |                                   |
| Umb         Test Types         Sch         T         Vision         Constraints         Prof   | Dem   | In S                                       | Situ Test<br>Sample                                  | ling  | Corin            | g Infoi                     | mation  | 41.130                                | DES                    | SCRIPTION                                     | I                               |                                    |  |   | Reduced<br>Level   | Le   | aend  | Depth<br>(Thick)   | In  | Backfill/<br>istrumen             |
| 30.27         C         100<br>3<br>3<br>10         10<br>10<br>10         10<br>10<br>10         10<br>10<br>10         10<br>10<br>10         10<br>10<br>10         10<br>10         10<br>10<  | (m  | )  | Ref <sup>'</sup> &<br>Type                           | Test Type<br>and Result                                 | SCR<br>RQD       | FI                          | Run   |                                       |                        |   |                                 |                                    |  |   | (11)   |  | 5   | (m)  |   |                                   |
| Water Strike         Hole Demoter         France         Hole Demoter         Progress         24.37         22.00           Strike         Hole Demoter         Progress         Renarks         Hole Demoter         Progress  | -<br>_ 30.27<br>-<br>-<br>-                 |  | С  |   | 100<br>0<br>0    | NI                          |   |                                       |                        |   |                                 |                                    |  |   |  |  |   | -  |   |                                   |
| -          | -   |  |  |   |                  |                             | 31.00-<br>32.00                               |                                       |                        |   |                                 |                                    |  |   |  |  |   | -  |   |                                   |
| Water Strikes     Hole Dameter     Progress     Remarks       Water Strikes     Hole Dameter     Progress       Water Strikes     Hole Dameter     Progress       Image: Strike     Hole Dameter     Progres       Image: Strike     St  | -<br>-<br>-<br>-<br>-<br>-                  |  |  |   | 100<br>0<br>0    |                             |   |                                       |                        |   |                                 |                                    |  |   | -24.37   |  |   | -<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-<br>-                        |   |                                   |
| Water Strikes     Hole Diameter     Progress       Strike     Flow Remarks     Hole Dia Depth of Date       Strike     Hole Dia Depth of Date     Time       Loght     Hole Dia Depth of Date     Time       146     32.00     19-08-2022       146     32.00     19-08-2022       15000     Strike Strikes     Hole Dia Depth of Date       146     32.00     19-08-2022       10-00     32.00     32.00       10-000     10-000       10-000     10-000       10-000     10-000       10-000     10-000       10-000     10-0000       10-0000     10-0000       10-00000     10-00000       10-00000000000000000000000000000000000  |   |  |  |   |                  |                             |   |                                       | <b>End</b><br>(Thi     | l <b>of Boreh</b><br>ickness of<br>not prc    | ole 32.00<br>basal lay<br>oven) | m<br>/er                           |  |   |  |  |   |  |   |                                   |
| Water Strikes         Hole Diameter         Progress           Strike         Flow Remarks         Hole Diameter (mm)         Time         Hole Casing Depth (m) Depth (m)         Water Strikes in the Main Ste area of Texeworks, Rectar Located in the Main Ste area of Texeworks, Rectar Located in the Main Ste area of Texeworks, Importance of the Main Ste area of Texeworks, Rectar Located in the State of Texeworks, Rectar   |   |  |  |   |                  |                             |   |                                       |                        |   |                                 |                                    |  |   |  |  |   |  |   |                                   |
| Water Strikes       Hole Diameter       Progress       Remarks         Strike       Flow Remarks       Hole Dia Depth of Date       Time       Hole Depth (m)       Depth (m)       Depth (m)       Depth (m)       Service (SORC) borehole located in the Main Site area of Teesworks, Redcar. Located in the south east of Remediation Zone PR2A.         Depth       (mm)       Hole (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Sorie/Rotary Core (SORC) borehole located in the Main Site area of Teesworks, Redcar. Located in the south east of Remediation Zone PR2A.         Lought       Hole (m)       Hole (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Depth (m)       Sorie/Rotary Core (SORC) borehole located in the Main Site area of Teesworks, Redcar. Located in the south east of Remediation Zone PR2A.         Lought       146       32.00       19-08-2022       10:00       32.00       32.00       Sorie/Rotary Core (SORC) borehole advanced via Sorie dilling.       3. SO/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.       3. So/RC borehole advanced via Sorie dilling.<  |   |  |  |   |                  |                             |   |                                       |                        |   |                                 |                                    |  |   |  |  |   |  |   |                                   |
| Water Strikes         Hole Diameter         Progress         Remarks           Strike         Flow Remarks         Hole Dia         Depth of Depth of Date         Time         Hole Casing Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Depth (m) Store PR2A.         1. Sonic/Rotary Core (SORC) borehole located in the Main Site area of Tessworks, Redar, Located in the south east of Remediation Zone PR2A.           Image: Depth of Depth of Depth of Depth of Depth of Depth (m)         19-08-2022         10:00         32.00         32.00         32.00         32.00         granted to progress borehole located in the Main Site area of Tessworks, Redar, Located in the south east of Remediation Zone PR2A.           Image: Depth of Depth of Depth of Depth of Depth of Depth of Depth (m)         19-08-2022         10:00         32.00         32.00         granted to progress borehole located in the Main Site area of Tessworks, Redard to progress borehole was onic drilling.         Sonic/Rotary Core (Sonic) and Core PR2A.           Image: Depth of Depth of Depth of Depth of Depth of Depth of Depth (m)         146         32.00         32.00         32.00         32.00         Image: Redard to progress borehole was onic drilling.         Sonic/Rotary Core (Sonic) drilling to 16.50m bgl, and completed via Rotary Coring to 32.00m bgl.         Topography. Level Ground.         5. Ground test via recovered from Ground level to 528m bgl. Organic odour noted in material recovered from Soning to 15.00m bgl.   |   |  | - 04 "   |   |                  |                             |   |                                       |                        |   |                                 |                                    | I  |   |  |  |   |  |   |                                   |
| Notes         Scale: 1:25         Logged By:         RB         Checked By:         JW   | Strike<br>Depth                             | Flow                                       | Remark   | S   | Ho<br>(mi<br>140 | Hole Ω<br>le Dia<br>m)<br>δ | Depth of Hole (n<br>32.00                     | of Date<br>n) 19-08-2022              | Progr<br>Time<br>10:00 | ess<br>Hole<br>Depth (m)<br>32.00             | Casing<br>Depth (m)<br>32.00    | Water<br>Depth (m)                 | 1. Sonic/R<br>Redcar. L<br>2. Buried 3<br>granted to<br>3. SO/RC<br>Coring to 3<br>4. Topogra<br>5. Ground<br>6. Slag en<br>noted in m<br>7. Borehol | Rotary Core<br>ocated in th<br>Service Insp<br>progress b<br>borehole at<br>32.00m bgl.<br>aphy: Level<br>countered i<br>naterial reco<br>le backfilled | Kemai<br>(SO/RC) bore<br>e south east o<br>section Pit tern<br>orehole via Sc<br>dvanced via Sc<br>Ground.<br>s not observer<br>n material reco<br>vered from 0.<br>with bentonite | rKS<br>ehole located<br>of Remediati<br>minated at 0.<br>onic drilling.<br>onic drilling t<br>d during drilli<br>overed from<br>73m to 1.50<br>e pellets and | l in the Main<br>on Zone PR2<br>18m bgl on I<br>to 16.50m bg<br>ing due to ad<br>ground level<br>m bgl.<br>arisings upo | Site area of Te<br>YA.<br>aard stratum. F<br>I, and complet<br>dition of flush v<br>to 5.28m bgl.<br>n completion. | eeswor<br>Permiss<br>ed via<br>water.<br>Organi | ks,<br>sion<br>Rotary<br>ic odour |
| I NOTOS: FOR OXDIGRATION OF SUMPOR AND ADDROVIDTIONS COO K OV Shoot  | Note-                                       | . For all                                  | planetic   | n of our mhala  | d of the         | rouict                      |   | Koveheet                              | S                      | cale: 1:25                                    |                                 |                                    | _ogged B   | y: RB   |  | (  | Checked E   | By: JW   |   |                                   |



Issued:

09-Aug-22

Certificate Number 22-14779

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-14779
- *Client Reference* 60678042

Order No (not supplied)

Contract Title NZT FEED GI

Description 4 Soil samples, 1 Leachate sample.

- Date Received 01-Aug-22
- Date Started 01-Aug-22
- Date Completed 09-Aug-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lopmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

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# Summary of Chemical Analysis Soil Samples

|                                    |             |       | Lab No   | 2040423    | 2040424    | 2040425    | 2040426    |
|------------------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                                    |             | .Sa   | ample ID | F-BH128    | F-BH128    | F-BH128    | F-BH128    |
|                                    |             |       | Depth    | 3.90       | 4.90       | 8.50       | 13.50      |
|                                    |             |       | Other ID |            |            |            |            |
|                                    |             | Sam   | ple Type | SOIL       | SOIL       | SOIL       | SOIL       |
|                                    |             | Sampl | ing Date | 28/07/2022 | 28/07/2022 | 28/07/2022 | 29/07/2022 |
|                                    |             | Sampl | ing Time | 0900       | 0930       | 1000       | 0800       |
| Test                               | Method      | LOD   | Units    |            |            |            |            |
| Preparation                        |             |       |          |            |            |            |            |
| Moisture Content                   | DETSC 1004  | 0.1   | %        | 5.2        | 19         | 21         | 23         |
| Metals                             | 1           |       |          |            |            |            |            |
| Arsenic                            | DETSC 2301# | 0.2   | mg/kg    | 7.3        | 6.5        | 6.2        | 18         |
| Beryllium                          | DETSC 2301# | 0.2   | mg/kg    | 0.6        | < 0.2      | < 0.2      | 0.8        |
| Boron, Water Soluble               | DETSC 2311# | 0.2   | mg/kg    | 0.8        | < 0.2      | 3.4        | 4.5        |
| Cadmium                            | DETSC 2301# | 0.1   | mg/kg    | 0.2        | < 0.1      | < 0.1      | < 0.1      |
| Chromium III                       | DETSC 2301* | 0.15  | mg/kg    | 870        | 3.8        | 4.4        | 41         |
| Chromium, Hexavalent               | DETSC 2204* | 1     | mg/kg    | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                             | DETSC 2301# | 0.2   | mg/kg    | 30         | 3.6        | 5.4        | 17         |
| Lead                               | DETSC 2301# | 0.3   | mg/kg    | 12         | 20         | 4.4        | 15         |
| Mercury                            | DETSC 2325# | 0.05  | mg/kg    | < 0.05     | < 0.05     | < 0.05     | < 0.05     |
| Nickel                             | DETSC 2301# | 1     | mg/kg    | 10         | 2.4        | 4.4        | 27         |
| Selenium                           | DETSC 2301# | 0.5   | mg/kg    | 5.7        | < 0.5      | < 0.5      | < 0.5      |
| Vanadium                           | DETSC 2301# | 0.8   | mg/kg    | 2400       | 12         | 13         | 72         |
| Zinc                               | DETSC 2301# | 1     | mg/kg    | 48         | 16         | 22         | 63         |
| Inorganics                         |             |       |          |            |            | 1          |            |
| рН                                 | DETSC 2008# |       | рН       | 11.7       | 9.6        | 8.9        | 9.1        |
| Cyanide, Total                     | DETSC 2130# | 0.1   | mg/kg    | 0.3        | 0.3        | 0.3        | 0.3        |
| Cyanide, Free                      | DETSC 2130# | 0.1   | mg/kg    | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                        | DETSC 2130# | 0.6   | mg/kg    | < 0.6      | 4.3        | 7.3        | < 0.6      |
| Organic matter                     | DETSC 2002# | 0.1   | %        | 1.2        | 0.6        | 2.0        | 2.3        |
| Nitrate as NO3                     | DETSC 2055  | 1     | mg/kg    | 3.2        | < 1.0      | < 1.0      | < 1.0      |
| Sulphate Aqueous Extract as SO4    | DETSC 2076# | 10    | mg/l     | 36         | 72         | 64         | 420        |
| Sulphide                           | DETSC 2024* | 10    | mg/kg    | 690        | 79         | 55         | 210        |
| Sulphur (free)                     | DETSC 3049# | 0.75  | mg/kg    | 8.5        | < 0.75     | < 0.75     | 30         |
| Sulphur as S, Total                | DETSC 2320  | 0.01  | %        | 0.17       | 0.02       | 0.05       | 0.31       |
| Sulphate as SO4, Total             | DETSC 2321# | 0.01  | %        | 0.23       | 0.05       | 0.03       | 0.17       |
| Petroleum Hydrocarbons             |             |       |          |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL          | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL          | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL         | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL     | DETSC 3521# | 1.5   | mg/kg    | 1.86       | 2.41       | 3.77       | 2.62       |
| Aliphatic >EC12-EC16: EH_2D_AL     | DETSC 3521# | 1.2   | mg/kg    | 2.07       | 3.01       | 5.40       | 3.32       |
| Aliphatic >EC16-EC21: EH_2D_AL     | DETSC 3521# | 1.5   | mg/kg    | < 1.50     | 1.99       | 3.79       | 2.28       |
| Aliphatic >EC21-EC35: EH_2D_AL     | DETSC 3521# | 3.4   | mg/kg    | < 3.40     | < 3.40     | < 3.40     | < 3.40     |
| <br>Aliphatic >EC35-EC40: EH_2D_AL | DETSC 3521# | 3.4   | mg/kg    | < 3.40     | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS 1D AL   | DETSC 3521* | 10    | mg/kg    | 12.72      | 15.82      | 21.62      | 17.07      |
| Aromatic C5-C7: HS_1D_AR           | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR           | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |



# Summary of Chemical Analysis Soil Samples

|                                       |             |        | Lab No   | 2040423    | 2040424    | 2040425    | 2040426    |
|---------------------------------------|-------------|--------|----------|------------|------------|------------|------------|
|                                       |             | .Sa    | mple ID  | F-BH128    | F-BH128    | F-BH128    | F-BH128    |
|                                       |             |        | Depth    | 3.90       | 4.90       | 8.50       | 13.50      |
|                                       |             | (      | Other ID |            |            |            |            |
|                                       |             | Sam    | ple Type | SOIL       | SOIL       | SOIL       | SOIL       |
|                                       |             | Sampl  | ing Date | 28/07/2022 | 28/07/2022 | 28/07/2022 | 29/07/2022 |
|                                       |             | Sampli | ng Time  | 0900       | 0930       | 1000       | 0800       |
| Test                                  | Method      | LOD    | Units    |            |            |            |            |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9    | mg/kg    | < 0.90     | < 0.90     | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5    | mg/kg    | < 0.50     | < 0.50     | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6    | mg/kg    | 2.33       | 2.70       | 18.29      | 16.43      |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4    | mg/kg    | < 1.40     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4    | mg/kg    | < 1.40     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10     | mg/kg    | < 10.00    | < 10.00    | 23.66      | 21.91      |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10     | mg/kg    | 19.51      | 23.73      | 45.28      | 38.98      |
| PAHs                                  |             |        |          |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | 0.04       |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | 0.03       |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg    | < 0.10     | < 0.10     | < 0.10     | < 0.10     |
| Phenols                               |             |        |          |            |            |            |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3    | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Subcontracted Analysis                |             |        |          |            |            |            |            |
| Benzene                               | \$*         | <2     | ug/kg    | <2         |            |            |            |
| Toluene                               | \$*         | <5     | ug/kg    | <5         |            |            |            |
| Ethylbenzene                          | \$*         | <2     | ug/kg    | <2         |            |            |            |
| p & m-xylene                          | \$*         | <2     | ug/kg    | <2         |            |            |            |
| o-xylene                              | \$*         | <2     | ug/kg    | <2         |            |            |            |
| МТВЕ                                  | \$*         | <5     | ug/kg    | <5         |            |            |            |
| TAME                                  | \$*         | < 5    | ug/kg    | <5         |            |            |            |



### **Summary of Chemical Analysis**

## **Leachate Samples**

| .Sample ID         F-BH128           Depth         3.90           Other ID         Sample Type           Sampling Date         28/07/2022           Sampling Time         0900           Test         Method         LOD           Preparation   |
|--|
| Depth         3.90           Other ID         Sample Type           Sampling Date         28/07/2022           Sampling Time         0900           Test         Method         LOD         Units           Preparation  |
| Other ID<br>Sample Type         LEACHATE           Sampling Date         28/07/2022           Sampling Time         0900           Test         Method         LOD         Units           Preparation   |
| Sample Type         LEACHATE           Sampling Date         28/07/2022           Sampling Time         0900           Test         Method         LOD         Units           Preparation         Used and a construction of the second |
| Sampling Time         28/07/2022           Sampling Time         0900           Test         Method         LOD         Units           Preparation  |
| Sampling Time         0900           Test         Method         LOD         Units           Preparation   |
| Test         Method         LOD         Units           Preparation  |
| Preparation           Leachate 2:1 250g Non-WAC         DETSC 1009*         Y           Metals          Y           Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.76           Boron, Dissolved         DETSC 2306*         12         ug/l         15           Cadmium, Dissolved         DETSC 2306         0.03         ug/l         < 0.03  |
| Leachate 2:1 250g Non-WAC         DETSC 1009*         Y           Metals         Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.76           Boron, Dissolved         DETSC 2306*         12         ug/l         15           Cadmium, Dissolved         DETSC 2306         0.03         ug/l         4           Chromium III, Dissolved         DETSC 2306*         1         ug/l         3.4           Chromium, Hexavalent         DETSC 2306         0.4         ug/l         4.0           Iron, Dissolved         DETSC 2306         5.5         ug/l         4.5  |
| Metals           Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.76           Boron, Dissolved         DETSC 2306*         12         ug/l         15           Cadmium, Dissolved         DETSC 2306         0.03         ug/l         <0.03  |
| Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.76           Boron, Dissolved         DETSC 2306*         12         ug/l         15           Cadmium, Dissolved         DETSC 2306         0.03         ug/l         <0.03   |
| Boron, Dissolved         DETSC 2306*         12         ug/l         15           Cadmium, Dissolved         DETSC 2306         0.03         ug/l         < 0.03   |
| Cadmium, Dissolved         DETSC 2306         0.03         ug/l         < 0.03           Chromium III, Dissolved         DETSC 2306*         1         ug/l         3.4           Chromium, Hexavalent         DETSC 2203         0.007         mg/l         < 0.007   |
| Chromium III, Dissolved         DETSC 2306*         1         ug/l         3.4           Chromium, Hexavalent         DETSC 2203         0.007         mg/l         < 0.007  |
| Chromium, Hexavalent         DETSC 2203         0.007         mg/l         < 0.007           Copper, Dissolved         DETSC 2306         0.4         ug/l         4.0           Iron, Dissolved         DETSC 2306         5.5         ug/l         < 5.5   |
| Copper, Dissolved         DETSC 2306         0.4         ug/l         4.0           Iron, Dissolved         DETSC 2306         5.5         ug/l         < 5.5  |
| Iron, Dissolved DETSC 2306 5.5 ug/l < 5.5  |
| ,  |
| Lead, Dissolved DETSC 2306 0.09 ug/l 0.82  |
| Mercury, Dissolved DETSC 2306 0.01 ug/l 0.27   |
| Nickel, Dissolved DETSC 2306 0.5 ug/l 0.6  |
| Selenium, Dissolved DETSC 2306 0.25 ug/l 0.74  |
| Zinc, Dissolved DETSC 2306 1.3 ug/l 1.9  |
| Inorganics   |
| pH DETSC 2008 PH 11.0  |
| Cyanide, Total Low Level DETSC 2131 0.1 ug/l 0.4   |
| Cyanide, Free Low Level DETSC 2131 0.1 ug/l < 0.1  |
| Thiocyanate DETSC 2130 20 ug/l 42  |
| Total Hardness as CaCO3 DETSC 2303 0.1 mg/l 172  |
| Ammoniacal Nitrogen as NH4 DETSC 2207 0.015 mg/l 0.03  |
| Ammoniacal Nitrogen as NH3 DETSC 2207 0.015 mg/l 0.029   |
| Ammoniacal Nitrogen as N DETSC 2207 0.015 mg/l 0.024   |
| Nitrate as NO3 DETSC 2055 0.1 mg/l 0.93  |
| Nitrite as NO2 DETSC 2055 0.1 mg/l < 0.10  |
| Sulphate as SO4 DETSC 2055 0.1 mg/l 6.3  |
| Total Organic Carbon DETSC 2085 1 mg/l 3.6   |
| PAHs   |
| Acenaphthene DETSC 3304 0.01 ug/l 0.02   |
| Acenaphthylene DETSC 3304 0.01 ug/l < 0.01   |
| Anthracene DFTSC 3304 $0.01$ $ug/l < 0.01$   |
| Benzo(a)anthracene DETSC 3304* 0.01 $\mu g/l < 0.01$   |
| Benzo(a) pyrene DETSC 3304 $0.01$ µg/l < 0.01  |
| Benzo(b)fluoranthene DFTSC 3304 $0.01$ $\mu g/l = 0.01$  |
| Benzo(g h i)nervlene DFTSC 3304 0.01 $ug/l < 0.01$   |
| Benzo(k)fluoranthene DFTSC 3304 0.01 $\mu\sigma/l$ < 0.01  |
| Chrysene DETSC 3304 0.01 $ug/l < 0.01$   |
| Dibenzo(a h)anthracene DETSC 3304 0.01 $ug/l < 0.01$   |
| Eluoranthene $PETSC 3304 = 0.01 = ug/l < 0.01$   |



## **Summary of Chemical Analysis**

## **Leachate Samples**

|                         |            |       | Lab No    | 2040427    |
|-------------------------|------------|-------|-----------|------------|
|                         |            | .Sa   | ample ID  | F-BH128    |
|                         |            |       | Depth     | 3.90       |
|                         |            |       | Other ID  |            |
|                         |            | Sam   | ple Type  | LEACHATE   |
|                         |            | Samp  | ling Date | 28/07/2022 |
|                         |            | Sampl | ing Time  | 0900       |
| Test                    | Method     | LOD   | Units     |            |
| Fluorene                | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Naphthalene             | DETSC 3304 | 0.05  | ug/l      | < 0.05     |
| Phenanthrene            | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Pyrene                  | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| PAH Total               | DETSC 3304 | 0.2   | ug/l      | < 0.20     |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

| Lab No  | Sample ID  | Material Type  | Result  | Comment*   | Analyst   |  |  |  |
|---|--|--|---|--|---|--|--|--|
| 2040423 F-BH128 3.90 SOIL NAD none Michael Kay                                    |  |  |   |  |   |  |  |  |
| Crocidolite = Blue<br>Samples are analy<br>Detected. Where<br>not included in lab | Asbestos, Amosite = Brown Asbestos,<br>rsed by DETSC 1101 using polarised lig<br>a sample is NAD, the result is based or<br>poratory scope of accreditation. | Chrysotile = White Asbestos. An<br>ht microscopy in accordance wit<br>n analysis of at least 2 sub-sampl | thophyllite, Actinolite and T<br>h HSG248 and documented<br>es and should be taken to n | remolite are other forms<br>in-house methods. NAD =<br>nean 'no asbestos detecte | of Asbestos.<br>= No Asbestos<br>d in sample'. Key: * - |  |  |  |



.....

#### Information in Support of the Analytical Results

*Our Ref* 22-14779 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                          | exceeded for | container for |
|---------|-----------------------|----------|--------------------------|--------------|---------------|
| Lab No  | Sample ID             | Sampled  | Containers Received      | tests        | tests         |
| 2040423 | F-BH128 3.90 SOIL     | 28/07/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2040424 | F-BH128 4.90 SOIL     | 28/07/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2040425 | F-BH128 8.50 SOIL     | 28/07/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2040426 | F-BH128 13.50 SOIL    | 29/07/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2040427 | F-BH128 3.90 LEACHATE | 28/07/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
|         |                       |          |                          |              |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### List of HWOL Acronyms and Operators

#### Det

| Aliphatic C5-C6      | HS 1D AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report


Issued:

12-Aug-22

Certificate Number 22-15026

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-15026
- *Client Reference* 60678042

Order No (not supplied)

Contract Title NZT FEED GI

Description 4 Soil samples, 1 Leachate sample.

- Date Received 04-Aug-22
- Date Started 04-Aug-22

Date Completed 12-Aug-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lopmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk



|                                  |             |       | Lab No   | 2041654                                      | 2041655    | 2041656    | 2041657    |
|----------------------------------|-------------|-------|----------|--|------------|------------|------------|
|                                  |             | .Sa   | ample ID | F-BH124                                      | F-BH124    | F-BH124    | F-BH124    |
|                                  |             | -     | Depth    | 3.80   | 5.10       | 7.80       | 10.80      |
|                                  |             | 1     | Other ID |  | -          | -          |            |
|                                  |             | Sam   | ple Type | SOIL   | SOIL       | SOIL       | SOIL       |
|                                  |             | Sampl | ing Date | 01/08/2022                                   | 01/08/2022 | 01/08/2022 | 02/08/2022 |
|                                  |             | Sampl | ing Time | 0900   | 0930       | 1100       | 1100       |
| Test                             | Method      | LOD   | Units    | <u>,                                    </u> |            | I          |            |
| QTSSubcon Prep                   | \$          | 0     |          | Y  | Y          |            | Y          |
| Subcon to QTS                    | \$          | 0     |          | Y  | Y          |            | Y          |
| Preparation                      |             |       |          |  |            |            |            |
| Moisture Content                 | DETSC 1004  | 0.1   | %        | 8.3  | 15         | 17         | 20         |
| Metals                           |             |       |          |  |            |            |            |
| Arsenic                          | DETSC 2301# | 0.2   | mg/kg    | 9.0  | 9.4        | 6.5        | 3.6        |
| Beryllium                        | DETSC 2301# | 0.2   | mg/kg    | 1.9  | < 0.2      | < 0.2      | < 0.2      |
| Boron, Water Soluble             | DETSC 2311# | 0.2   | mg/kg    | 1.1  | 0.4        | 0.6        | 0.8        |
| Cadmium                          | DETSC 2301# | 0.1   | mg/kg    | 0.1  | < 0.1      | < 0.1      | < 0.1      |
| Chromium III                     | DETSC 2301* | 0.15  | mg/kg    | 410  | 4.1        | 4.9        | 2.7        |
| Chromium, Hexavalent             | DETSC 2204* | 1     | mg/kg    | < 1.0  | < 1.0      | < 1.0      | < 1.0      |
| Copper                           | DETSC 2301# | 0.2   | mg/kg    | 130  | 3.7        | 3.2        | 2.9        |
| Lead                             | DETSC 2301# | 0.3   | mg/kg    | 17   | 34         | 4.4        | 3.1        |
| Mercury                          | DETSC 2325# | 0.05  | mg/kg    | < 0.05                                       | < 0.05     | < 0.05     | < 0.05     |
| Nickel                           | DETSC 2301# | 1     | mg/kg    | 12   | 3.2        | 3.4        | 2.6        |
| Selenium                         | DETSC 2301# | 0.5   | mg/kg    | 4.1  | < 0.5      | < 0.5      | < 0.5      |
| Vanadium                         | DETSC 2301# | 0.8   | mg/kg    | 1300   | 14         | 19         | 9.1        |
| Zinc                             | DETSC 2301# | 1     | mg/kg    | 38   | 32         | 20         | 13         |
| Inorganics                       |             |       |          |  |            |            |            |
| рН                               | DETSC 2008# |       | pН       | 11.6   | 8.9        | 9.2        | 8.7        |
| Cyanide, Total                   | DETSC 2130# | 0.1   | mg/kg    | 0.4  | < 0.1      | < 0.1      | < 0.1      |
| Cyanide, Free                    | DETSC 2130# | 0.1   | mg/kg    | < 0.1  | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                      | DETSC 2130# | 0.6   | mg/kg    | 0.7  | 0.8        | < 0.6      | < 0.6      |
| Organic matter                   | DETSC 2002# | 0.1   | %        | < 0.1  | 0.3        | 0.2        | 0.4        |
| Nitrate as NO3                   | DETSC 2055  | 1     | mg/kg    | 2.2  | 5.8        | 5.1        | 6.6        |
| Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10    | mg/l     | 140  | 240        | 47         | 130        |
| Sulphide                         | DETSC 2024* | 10    | mg/kg    | 1400   | 140        | 28         | 16         |
| Sulphur (free)                   | DETSC 3049# | 0.75  | mg/kg    | 17   | 11         | < 0.75     | < 0.75     |
| Sulphur as S, Total              | DETSC 2320  | 0.01  | %        | 0.26   | 0.05       | 0.02       | 0.02       |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01  | %        | 0.86   | 0.13       | 0.04       | 0.04       |
| Petroleum Hydrocarbons           |             | ·     |          |  |            | . <u></u>  |            |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01  | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL        | DETSC 3321* | 0.01  | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL       | DETSC 3321* | 0.01  | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL   | DETSC 3521# | 1.5   | mg/kg    | 2.63   | 2.14       | 2.30       | 2.61       |
| Aliphatic >EC12-EC16: EH_2D_AL   | DETSC 3521# | 1.2   | mg/kg    | 2.69   | 2.55       | 2.64       | 2.97       |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5   | mg/kg    | 2.71   | 2.20       | 2.37       | 2.83       |
| Aliphatic >EC21-EC35: EH_2D_AL   | DETSC 3521# | 3.4   | mg/kg    | < 3.40                                       | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic >EC35-EC40: EH_2D_AL   | DETSC 3521# | 3.4   | mg/kg    | < 3.40                                       | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH 2D+HS 1D AL | DETSC 3521* | 10    | mg/kg    | 15.48  | 14.97      | 15.51      | 16.99      |



|                                       |             |       | Lab No   | 2041654                                      | 2041655                       | 2041656    | 2041657    |
|---------------------------------------|-------------|-------|----------|--|-------------------------------|------------|------------|
|                                       |             | .Sa   | ample ID | F-BH124                                      | F-BH124                       | F-BH124    | F-BH124    |
|                                       |             |       | Depth    | 3.80   | 5.10                          | 7.80       | 10.80      |
|                                       |             |       | Other ID |  |                               |            |            |
|                                       |             | Sam   | ple Type | SOIL   | SOIL                          | SOIL       | SOIL       |
|                                       |             | Sampl | ing Date | 01/08/2022                                   | 01/08/2022                    | 01/08/2022 | 02/08/2022 |
|                                       |             | Sampl | ing Time | 0900   | 0930                          | 1100       | 1100       |
| Test                                  | Method      | LOD   | Units    |  |                               |            |            |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01                                       | < 0.01                        | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01                                       | < 0.01                        | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01                                       | < 0.01                        | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9   | mg/kg    | 1.36   | 1.22                          | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5   | mg/kg    | 0.58   | < 0.50                        | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | 2.04   | 1.73                          | 1.22       | 1.26       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4   | mg/kg    | < 1.40                                       | < 1.40                        | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4   | mg/kg    | < 1.40                                       | < 1.40                        | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10    | mg/kg    | < 10.00                                      | < 10.00                       | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10    | mg/kg    | 22.53  | 21.85                         | 21.80      | 23.56      |
| PAHs                                  |             |       |          |  |                               |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| ,<br>Dibenzo(a,h)anthracene           | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | 0.04   | < 0.03                        | < 0.03     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | 0.04   | < 0.03                        | < 0.03     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03                                       | < 0.03                        | < 0.03     | < 0.03     |
| PAH - USEPA 16. Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10                                       | < 0.10                        | < 0.10     | < 0.10     |
| Phenols                               |             |       | 0, 0     |  |                               |            |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3   | mg/kg    | < 0.3  | < 0.3                         | < 0.3      | < 0.3      |
| Phenol                                | DETSC 3451* | 0.01  | mg/kg    | < 0.01                                       |                               |            |            |
| 4-Chloro-3-methylphenol               | DETSC 3451* | 0.01  | mg/kg    | < 0.01                                       |                               |            |            |
| 2.4-Dichlorophenol                    | DETSC 3451* | 0.01  |          | < 0.01                                       |                               |            |            |
| 2 4-Dimethylphenol                    | DETSC 3451* | 0.01  |          | < 0.01                                       |                               |            |            |
| p-cresol                              | DETSC 3451* | 0.01  |          | < 0.01                                       |                               |            |            |
| 2.6-Dimethylphenol                    | DFTSC 3451* | 0.01  | mø/kø    | < 0.01                                       |                               |            |            |
| 2.6-Dichlorophenol                    | DETSC 3451* | 0.01  | mg/kg    | < 0.01                                       |                               |            |            |
| 2.4.6-Trichlorophenol                 | DFTSC 3451* | 0.01  | mø/kø    | < 0.01                                       |                               |            |            |
| Subcontracted Analysis                | 52150 5451  | 0.01  | 6/ י/6   | - 0.01                                       |                               |            |            |
| Benzene                               | <b>ς</b> *  | <2    | uø/ko    | </td <td><?</td><td></td><td>&lt;7</td></td> | </td <td></td> <td>&lt;7</td> |            | <7         |
|                                       | 17          |       | ~~/\``S  | ~~   | ~~                            | 1          | ~ 2        |



|              |        |               | Lab No   | 2041654    | 2041655    | 2041656    | 2041657    |
|--------------|--------|---------------|----------|------------|------------|------------|------------|
|              |        | .Sa           | mple ID  | F-BH124    | F-BH124    | F-BH124    | F-BH124    |
|              |        |               | Depth    | 3.80       | 5.10       | 7.80       | 10.80      |
|              |        | (             | Other ID |            |            |            |            |
|              |        | Sam           | ple Type | SOIL       | SOIL       | SOIL       | SOIL       |
|              |        | Sampl         | ing Date | 01/08/2022 | 01/08/2022 | 01/08/2022 | 02/08/2022 |
|              |        | Sampling Time |          | 0900       | 0930       | 1100       | 1100       |
| Test         | Method | LOD           | Units    |            |            |            |            |
| Toluene      | \$*    | <5            | ug/kg    | <5         | <5         |            | <5         |
| Ethylbenzene | \$*    | <2            | ug/kg    | <2         | <2         |            | <2         |
| p & m-xylene | \$*    | <2            | ug/kg    | <2         | <2         |            | <2         |
| o-xylene     | \$*    | <2            | ug/kg    | <2         | <2         |            | <2         |
| MTBE         | \$*    | <5            | ug/kg    | <5         | <5         |            | <5         |
| TAME         | \$*    | <5            | ug/kg    | <5         | <5         |            | <5         |



### **Summary of Chemical Analysis**

### **Leachate Samples**

|                            |                   |        | Lab No              | 2041658    |
|----------------------------|-------------------|--------|---------------------|------------|
|                            |                   | .Sa    | F-BH124             |            |
|                            |                   |        | Depth               | 3.80       |
|                            |                   | (      | Other ID            |            |
|                            |                   | Samp   | ole Type            | LEACHATE   |
|                            |                   | Sampli | ing Date            | 01/08/2022 |
|                            |                   | Sampli | ng Time             | 0900       |
| Test                       | Method            | LOD    | Units               |            |
| Preparation                |                   |        |                     |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |        |                     | Y          |
| Metals                     |                   |        |                     |            |
| Arsenic, Dissolved         | DETSC 2306        | 0.16   | ug/l                | 0.91       |
| Boron, Dissolved           | DETSC 2306*       | 12     | ug/l                | < 12       |
| Cadmium, Dissolved         | <b>DETSC 2306</b> | 0.03   | ug/l                | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306*       | 1      | ug/l                | 2.0        |
| Chromium, Hexavalent       | DETSC 2203        | 0.007  | mg/l                | < 0.007    |
| Copper, Dissolved          | DETSC 2306        | 0.4    | ug/l                | 5.4        |
| Iron, Dissolved            | DETSC 2306        | 5.5    | ug/l                | 8.9        |
| Lead, Dissolved            | DETSC 2306        | 0.09   | ug/l                | 0.68       |
| Mercury, Dissolved         | DETSC 2306        | 0.01   | ug/l                | 0.08       |
| Nickel, Dissolved          | DETSC 2306        | 0.5    | ug/l                | < 0.5      |
| Selenium, Dissolved        | DETSC 2306        | 0.25   | ug/l                | 0.83       |
| Zinc, Dissolved            | DETSC 2306        | 1.3    | ug/l                | 2.8        |
| Inorganics                 |                   |        |                     |            |
| рН                         | DETSC 2008        |        | pН                  | 10.7       |
| Cyanide, Total Low Level   | DETSC 2131        | 0.1    | ug/l                | 0.4        |
| Cyanide, Free Low Level    | DETSC 2131        | 0.1    | ug/l                | < 0.1      |
| Thiocyanate                | DETSC 2130        | 20     | ug/l                | < 20       |
| Total Hardness as CaCO3    | DETSC 2303        | 0.1    | mg/l                | 109        |
| Ammoniacal Nitrogen as NH4 | DETSC 2207        | 0.015  | mg/l                | 0.26       |
| Ammoniacal Nitrogen as NH3 | DETSC 2207        | 0.015  | mg/l                | 0.24       |
| Ammoniacal Nitrogen as N   | DETSC 2207        | 0.015  | mg/l                | 0.20       |
| Nitrate as NO3             | DETSC 2055        | 0.1    | <br>mg/l            | 0.36       |
| Nitrite as NO2             | DETSC 2055        | 0.1    | mg/l                | < 0.10     |
| Sulphate as SO4            | DETSC 2055        | 0.1    | mg/l                | 12         |
| Total Organic Carbon       | DETSC 2085        | 1      | mg/l                | 3.6        |
| PAHs                       | 52130 2003        | -      |                     | 5.0        |
| Acenaphthene               | DETSC 3304        | 0.01   | uø/l                | < 0.01     |
| Acenaphthylene             | DETSC 3304        | 0.01   | ug/l                | < 0.01     |
| Anthracene                 | DETSC 3304        | 0.01   | ug/l                | < 0.01     |
| Benzo(a)anthracene         | DETSC 3304*       | 0.01   | ر <u>می</u><br>ارور | < 0.01     |
| Benzo(a)pyrene             | DETSC 3304        | 0.01   | رون<br>ارون         | < 0.01     |
| Benzo(b)fluoranthene       | DETSC 3304        | 0.01   |                     | < 0.01     |
| Benzo(g h i)pervlene       | DETSC 3304        | 0.01   | <u>υσ/Ι</u>         | 0.01       |
| Benzo(k)fluoranthene       | DETSC 2204        | 0.01   | ug/1                | < 0.01     |
| Chrysone                   | DETSC 2204        | 0.01   |                     | < 0.01     |
| Dibenzo(a h)anthracono     | DE13C 3304        | 0.01   |                     | < 0.01     |
| Eluoranthono               | DE 13C 3304       | 0.01   | ug/1                | < 0.01     |
| FIUUIdIILIIEIIE            | DE13C 3304        | 0.01   | ug/1                | < U.U.L    |



## **Summary of Chemical Analysis**

### **Leachate Samples**

|                         |            |       | Lab No    | 2041658    |
|-------------------------|------------|-------|-----------|------------|
|                         |            | .Sa   | ample ID  | F-BH124    |
|                         |            |       | Depth     | 3.80       |
|                         |            |       | Other ID  |            |
|                         |            | Sam   | ple Type  | LEACHATE   |
|                         |            | Samp  | ling Date | 01/08/2022 |
|                         |            | Sampl | ing Time  | 0900       |
| Test                    | Method     | LOD   | Units     |            |
| Fluorene                | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Naphthalene             | DETSC 3304 | 0.05  | ug/l      | < 0.05     |
| Phenanthrene            | DETSC 3304 | 0.01  | ug/l      | 0.01       |
| Pyrene                  | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| PAH Total               | DETSC 3304 | 0.2   | ug/l      | < 0.20     |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

| Lab No  | Sample ID  | Material Type  | Result  | Comment*   | Analyst   |
|---|--|--|---|--|---|
| 2041654   | F-BH124 3.80   | SOIL   | NAD   | none   | Darryl Fletcher   |
| Crocidolite = Blue<br>Samples are analy<br>Detected. Where<br>not included in lab | Asbestos, Amosite = Brown Asbestos,<br>rsed by DETSC 1101 using polarised lig<br>a sample is NAD, the result is based or<br>poratory scope of accreditation. | Chrysotile = White Asbestos. An<br>ht microscopy in accordance wit<br>n analysis of at least 2 sub-sampl | thophyllite, Actinolite and T<br>n HSG248 and documented<br>es and should be taken to n | remolite are other forms<br>in-house methods. NAD =<br>nean 'no asbestos detecte | of Asbestos.<br>= No Asbestos<br>d in sample'. Key: * - |



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#### Information in Support of the Analytical Results

*Our Ref* 22-15026 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                          | exceeded for | container for |
|---------|-----------------------|----------|--------------------------|--------------|---------------|
| Lab No  | Sample ID             | Sampled  | Containers Received      | tests        | tests         |
| 2041654 | F-BH124 3.80 SOIL     | 01/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2041655 | F-BH124 5.10 SOIL     | 01/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2041656 | F-BH124 7.80 SOIL     | 01/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2041657 | F-BH124 10.80 SOIL    | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2041658 | F-BH124 3.80 LEACHATE | 01/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
|         |                       |          |                          |              |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### List of HWOL Acronyms and Operators

#### Det

| Aliphatic C5-C6      | HS 1D AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued:

16-Aug-22

Certificate Number 22-15290

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-15290
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 3 Soil samples, 2 Leachate samples.
  - Date Received 08-Aug-22
- Date Started 08-Aug-22
- Date Completed 16-Aug-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lopmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk



|                                  |             |        | Lab No   | 2043031    | 2043033    |
|----------------------------------|-------------|--------|----------|------------|------------|
|                                  |             | .Sa    | mple ID  | F-BH120    | F-BH120    |
|                                  |             |        | Depth    | 3.50       | 5.50       |
|                                  |             | (      | Other ID |            |            |
|                                  |             | Sam    | ple Type | ES         | ES         |
|                                  |             | Sampl  | ing Date | 02/08/2022 | 02/08/2022 |
|                                  |             | Sampli | ng Time  | 1400       | 1500       |
| Test                             | Method      | LOD    | Units    |            |            |
| Preparation                      |             |        |          |            |            |
| Moisture Content                 | DETSC 1004  | 0.1    | %        | 12         | 18         |
| Metals                           |             |        |          |            |            |
| Arsenic                          | DETSC 2301# | 0.2    | mg/kg    | 4.7        | 4.7        |
| Beryllium                        | DETSC 2301# | 0.2    | mg/kg    | 6.3        | < 0.2      |
| Boron, Water Soluble             | DETSC 2311# | 0.2    | mg/kg    | 1.3        | < 0.2      |
| Cadmium                          | DETSC 2301# | 0.1    | mg/kg    | < 0.1      | < 0.1      |
| Chromium III                     | DETSC 2301* | 0.15   | mg/kg    | 2.3        | 3.3        |
| Chromium, Hexavalent             | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      |
| Copper                           | DETSC 2301# | 0.2    | mg/kg    | 3.3        | 4.4        |
| Lead                             | DETSC 2301# | 0.3    | mg/kg    | 2.6        | 22         |
| Mercury                          | DETSC 2325# | 0.05   | mg/kg    | < 0.05     | < 0.05     |
| Nickel                           | DETSC 2301# | 1      | mg/kg    | < 1.0      | 3.1        |
| Selenium                         | DETSC 2301# | 0.5    | mg/kg    | 0.7        | < 0.5      |
| Vanadium                         | DETSC 2301# | 0.8    | mg/kg    | 12         | 10         |
| Zinc                             | DETSC 2301# | 1      | mg/kg    | 7.1        | 16         |
| Inorganics                       |             |        |          |            |            |
| рН                               | DETSC 2008# |        | рН       | 10.2       | 9.3        |
| Cyanide, Total                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      |
| Cyanide, Free                    | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      |
| Thiocyanate                      | DETSC 2130# | 0.6    | mg/kg    | 1.9        | 1.2        |
| Organic matter                   | DETSC 2002# | 0.1    | %        | 0.2        | 0.2        |
| Nitrate as NO3                   | DETSC 2055  | 1      | mg/kg    | 1.3        | < 1.0      |
| Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10     | mg/l     | 480        | 95         |
| Sulphide                         | DETSC 2024* | 10     | mg/kg    | 1500       | 120        |
| Sulphur (free)                   | DETSC 3049# | 0.75   | mg/kg    | 1.3        | 49         |
| Sulphur as S, Total              | DETSC 2320  | 0.01   | %        | 0.22       | 0.05       |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01   | %        | 1.7        | 0.10       |
| Petroleum Hydrocarbons           |             |        |          |            | 1          |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS 1D AL        | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS 1D AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH 2D AL   | DETSC 3521# | 1.5    | mg/kg    | < 1.50     | 1.94       |
| Aliphatic >EC12-EC16: EH 2D AL   | DETSC 3521# | 1.2    | mg/kg    | < 1.20     | < 1.20     |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5    | mg/kg    | < 1.50     | < 1.50     |
| Aliphatic >EC21-EC35: EH 2D AL   | DETSC 3521# | 3.4    | mg/kg    | < 3.40     | < 3.40     |
| Aliphatic >EC35-EC40: EH 2D AL   | DETSC 3521# | 3.4    | mg/kg    | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH 2D+HS 1D AL | DETSC 3521* | 10     | mg/kg    | 12.58      | 13.63      |
| Aromatic C5-C7: HS 1D AR         | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS 1D AR         | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |



|                                       |             |       | Lab No   | 2043031    | 2043033    |
|---------------------------------------|-------------|-------|----------|------------|------------|
|                                       |             | .Sa   | ample ID | F-BH120    | F-BH120    |
|                                       |             |       | Depth    | 3.50       | 5.50       |
|                                       |             |       | Other ID |            |            |
|                                       |             | Sam   | ple Type | ES         | ES         |
|                                       |             | Sampl | ing Date | 02/08/2022 | 02/08/2022 |
|                                       |             | Sampl | ing Time | 1400       | 1500       |
| Test                                  | Method      | LOD   | Units    |            |            |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9   | mg/kg    | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5   | mg/kg    | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | < 0.60     | < 0.60     |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4   | mg/kg    | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4   | mg/kg    | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10    | mg/kg    | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH 2D+HS 1D Total | DETSC 3521* | 10    | mg/kg    | 18.08      | 19.55      |
| PAHs                                  |             | 1     | 0, 0     |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| ,<br>Dibenzo(a,h)anthracene           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| PAH - USEPA 16. Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     | < 0.10     |
| PCBs                                  |             | 1     | 0, 0     |            |            |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 52                                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 101                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 118                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 153                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 138                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 180                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| РСВ 77                                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 81                                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 105                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 114                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 118                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 123                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |



|                        |             |       | Lab No   | 2043031    | 2043033    |
|------------------------|-------------|-------|----------|------------|------------|
|                        |             | .Sa   | ample ID | F-BH120    | F-BH120    |
|                        |             |       | Depth    | 3.50       | 5.50       |
|                        |             |       | Other ID |            |            |
|                        |             | Sam   | ple Type | ES         | ES         |
|                        |             | Sampl | ing Date | 02/08/2022 | 02/08/2022 |
|                        |             | Sampl | ing Time | 1400       | 1500       |
| Test                   | Method      | LOD   | Units    |            |            |
| PCB 126                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 156                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 157                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 167                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 169                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 189                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 7 Total            | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| Phenols                |             |       |          |            |            |
| Phenol - Monohydric    | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      |
| Subcontracted Analysis |             |       |          |            |            |
| Benzene                | \$*         | <2    | ug/kg    | <2         | <2         |
| Toluene                | \$*         | <5    | ug/kg    | <5         | <5         |
| Ethylbenzene           | \$*         | <2    | ug/kg    | <2         | <2         |
| p & m-xylene           | \$*         | <2    | ug/kg    | <2         | <2         |
| o-xylene               | \$*         | <2    | ug/kg    | <2         | <2         |
| МТВЕ                   | \$*         | <5    | ug/kg    | <5         | <5         |
| TAME                   | \$*         | < 5   | ug/kg    | < 5        | < 5        |



### **Summary of Chemical Analysis**

### **Leachate Samples**

|                            | Lab No      |       |                        | 2043034    | 2043035    |
|----------------------------|-------------|-------|------------------------|------------|------------|
|                            |             | .Sa   | ample ID               | F-BH120    | F-BH120    |
|                            |             | Depth |                        | 3.50       | 5.50       |
|                            |             |       | Other ID               |            |            |
|                            |             | Sam   | ple Type               | ES         | ES         |
|                            |             | Sampl | ing Date               | 02/08/2022 | 02/08/2022 |
|                            |             | Sampl | ing Time               | 1400       | 1500       |
| Test                       | Method      | LOD   | Units                  |            |            |
| Preparation                |             |       |                        |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |       |                        | Y          | Y          |
| Metals                     |             |       |                        |            |            |
| Arsenic, Dissolved         | DETSC 2306  | 0.16  | ug/l                   | 1.9        | 5.8        |
| Boron, Dissolved           | DETSC 2306* | 12    | ug/l                   | 34         | < 12       |
| Cadmium, Dissolved         | DETSC 2306  | 0.03  | ug/l                   | < 0.03     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306* | 1     | ug/l                   | < 1.0      | < 1.0      |
| Chromium, Hexavalent       | DETSC 2203  | 0.007 | mg/l                   | < 0.007    | < 0.007    |
| Copper, Dissolved          | DETSC 2306  | 0.4   | ug/l                   | 6.2        | 4.6        |
| Iron, Dissolved            | DETSC 2306  | 5.5   | ug/l                   | < 5.5      | 47         |
| Lead, Dissolved            | DETSC 2306  | 0.09  | ug/l                   | 1.3        | 3.8        |
| Mercury, Dissolved         | DETSC 2306  | 0.01  | ug/l                   | 0.04       | 0.01       |
| Nickel, Dissolved          | DETSC 2306  | 0.5   | ug/l                   | < 0.5      | < 0.5      |
| Selenium, Dissolved        | DETSC 2306  | 0.25  | ug/l                   | 14         | 2.4        |
| Zinc, Dissolved            | DETSC 2306  | 1.3   | ug/l                   | < 1.3      | 1.3        |
| Inorganics                 |             |       |                        |            |            |
| рН                         | DETSC 2008  |       | рН                     | 10.1       | 8.9        |
| Cyanide, Total Low Level   | DETSC 2131  | 0.1   | ug/l                   | 0.8        | 0.6        |
| Cyanide, Free Low Level    | DETSC 2131  | 0.1   | ug/l                   | < 0.1      | < 0.1      |
| Thiocyanate                | DETSC 2130  | 20    | ug/l                   | 160        | 230        |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1   | mg/l                   | 99.3       | 32.7       |
| Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015 | mg/l                   | 0.94       | 0.11       |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015 | mg/l                   | 0.88       | 0.10       |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015 | mg/l                   | 0.73       | 0.084      |
| Nitrate as NO3             | DETSC 2055  | 0.1   | mg/l                   | 0.18       | 0.16       |
| Nitrite as NO2             | DETSC 2055  | 0.1   | mg/l                   | < 0.10     | < 0.10     |
| Sulphate as SO4            | DETSC 2055  | 0.1   | mg/l                   | 52         | 11         |
| Total Organic Carbon       | DETSC 2085  | 1     | mg/l                   | 2.9        | 3.1        |
| PAHs                       |             |       |                        |            |            |
| Acenaphthene               | DETSC 3304  | 0.01  | ug/l                   | 0.01       | 0.07       |
| Acenaphthylene             | DETSC 3304  | 0.01  | ug/l                   | < 0.01     | < 0.01     |
| Anthracene                 | DETSC 3304  | 0.01  | ug/l                   | < 0.01     | < 0.01     |
| Benzo(a)anthracene         | DETSC 3304* | 0.01  | ug/l                   | < 0.01     | < 0.01     |
| Benzo(a)pyrene             | DETSC 3304  | 0.01  | ug/l                   | < 0.01     | < 0.01     |
| Benzo(b)fluoranthene       | DETSC 3304  | 0.01  | ، <u>ہے۔</u><br>ا/ میں | < 0.01     | < 0.01     |
| Benzo(g.h.i)pervlene       | DETSC 3304  | 0.01  | رهي<br>ا/عرا           | < 0.01     | < 0.01     |
| Benzo(k)fluoranthene       | DETSC 3304  | 0.01  | ، روب<br>ا/ مرر        | < 0.01     | < 0.01     |
| Chrysene                   | DETSC 3304  | 0.01  | ر <u>می</u><br>ارهب    | < 0.01     | < 0.01     |
| Dibenzo(a.h)anthracene     | DETSC 3304  | 0.01  | ر می<br>ا/ میں         | < 0.01     | < 0.01     |
| Fluoranthene               | DETSC 3304  | 0.01  | ا/میں<br>ا/میں         | < 0.01     | 0.01       |



## **Summary of Chemical Analysis**

### **Leachate Samples**

|                         |            |       | Lab No   | 2043034    | 2043035    |
|-------------------------|------------|-------|----------|------------|------------|
|                         |            | .Sa   | ample ID | F-BH120    | F-BH120    |
|                         |            |       | Depth    | 3.50       | 5.50       |
|                         |            |       | Other ID |            |            |
|                         |            | Sam   | ple Type | ES         | ES         |
|                         |            | Sampl | ing Date | 02/08/2022 | 02/08/2022 |
|                         |            | Sampl | ing Time | 1400       | 1500       |
| Test                    | Method     | LOD   | Units    |            |            |
| Fluorene                | DETSC 3304 | 0.01  | ug/l     | < 0.01     | 0.02       |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304 | 0.01  | ug/l     | < 0.01     | < 0.01     |
| Naphthalene             | DETSC 3304 | 0.05  | ug/l     | 0.08       | 0.12       |
| Phenanthrene            | DETSC 3304 | 0.01  | ug/l     | 0.02       | 0.02       |
| Pyrene                  | DETSC 3304 | 0.01  | ug/l     | < 0.01     | 0.01       |
| PAH Total               | DETSC 3304 | 0.2   | ug/l     | < 0.20     | 0.26       |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

Our Ref 22-15290 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No S   | Sample ID   | Material Type | Result | Comment* | Analyst     |
|------------|-------------|---------------|--------|----------|-------------|
| 2043031 F- | -BH120 3.50 | SOIL          | NAD    | none     | D Wilkinson |
| 2043032 F- | -BH120 4.50 | SOIL          | NAD    | none     | D Wilkinson |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



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#### Information in Support of the Analytical Results

*Our Ref* 22-15290 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                          | exceeded for | container for |
|---------|-----------------------|----------|--------------------------|--------------|---------------|
| Lab No  | Sample ID             | Sampled  | Containers Received      | tests        | tests         |
| 2043031 | F-BH120 3.50 SOIL     | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2043032 | F-BH120 4.50 SOIL     | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2043033 | F-BH120 5.50 SOIL     | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2043034 | F-BH120 3.50 LEACHATE | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2043035 | F-BH120 5.50 LEACHATE | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
|         |                       |          |                          |              |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### List of HWOL Acronyms and Operators

#### Det

| Aliphatic C5-C6      | HS 1D AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued:

18-Aug-22

Certificate Number 22-15291

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-15291
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
  - Description 2 Soil samples.
  - Date Received 08-Aug-22
  - Date Started 08-Aug-22
- Date Completed 18-Aug-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood

Kirk Bridgewood General Manager





| Lab No                           |             |       |          | 2043036    | 2043037     |
|----------------------------------|-------------|-------|----------|------------|-------------|
|                                  |             | .Sa   | ample ID | F-BH124    | F-BH113     |
|                                  |             |       | Depth    | 18.80      | 24.66-24.88 |
|                                  |             |       | Other ID |            |             |
|                                  |             | Sam   | ple Type | ES         | ES          |
|                                  |             | Sampl | ing Date | 02/08/2022 | 02/08/2022  |
|                                  |             | Sampl | ing Time | 1000       | 1200        |
| Test                             | Method      | LOD   | Units    |            |             |
| Preparation                      |             |       |          |            |             |
| Moisture Content                 | DETSC 1004  | 0.1   | %        | 13         | 8.4         |
| Metals                           |             |       |          |            |             |
| Arsenic                          | DETSC 2301# | 0.2   | mg/kg    | 26         | 8.9         |
| Beryllium                        | DETSC 2301# | 0.2   | mg/kg    | 0.6        | 0.4         |
| Boron, Water Soluble             | DETSC 2311# | 0.2   | mg/kg    | 2.0        | 6.2         |
| Cadmium                          | DETSC 2301# | 0.1   | mg/kg    | 0.1        | < 0.1       |
| Chromium III                     | DETSC 2301* | 0.15  | mg/kg    | 18         | 15          |
| Chromium, Hexavalent             | DETSC 2204* | 1     | mg/kg    | < 1.0      | < 1.0       |
| Copper                           | DETSC 2301# | 0.2   | mg/kg    | 18         | 9.9         |
| Lead                             | DETSC 2301# | 0.3   | mg/kg    | 23         | 9.2         |
| Mercury                          | DETSC 2325# | 0.05  | mg/kg    | < 0.05     | < 0.05      |
| Nickel                           | DETSC 2301# | 1     | mg/kg    | 26         | 18          |
| Selenium                         | DETSC 2301# | 0.5   | mg/kg    | < 0.5      | < 0.5       |
| Vanadium                         | DETSC 2301# | 0.8   | mg/kg    | 33         | 26          |
| Zinc                             | DETSC 2301# | 1     | mg/kg    | 120        | 27          |
| Inorganics                       |             | . 1   | 2. 0     |            |             |
| рН                               | DETSC 2008# |       | pН       | 8.8        | 8.7         |
| Cyanide, Total                   | DETSC 2130# | 0.1   | mg/kg    | 0.3        | 0.3         |
| Cyanide, Free                    | DETSC 2130# | 0.1   | mg/kg    | < 0.1      | < 0.1       |
| Thiocyanate                      | DETSC 2130# | 0.6   | mg/kg    | < 0.6      | 0.9         |
| Organic matter                   | DETSC 2002# | 0.1   | %        | 3.1        | 2.0         |
| Nitrate as NO3                   | DETSC 2055  | 1     | mg/kg    | < 1.0      | < 1.0       |
| Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10    | mg/l     | 160        | 250         |
| Sulphide                         | DETSC 2024* | 10    | mg/kg    | 43         | 64          |
| Sulphur (free)                   | DETSC 3049# | 0.75  | mg/kg    | < 0.75     | < 0.75      |
| Sulphur as S, Total              | DETSC 2320  | 0.01  | %        | 1.3        | 0.39        |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01  | %        | 0.11       | 0.05        |
| Petroleum Hydrocarbons           |             |       |          |            |             |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01      |
| Aliphatic C6-C8: HS_1D_AL        | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01      |
| Aliphatic C8-C10: HS_1D_AL       | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01      |
| Aliphatic >EC10-EC12: EH_2D_AL   | DETSC 3521# | 1.5   | mg/kg    | 1.67       | < 1.50      |
| Aliphatic >EC12-EC16: EH_2D_AL   | DETSC 3521# | 1.2   | mg/kg    | 3.44       | < 1.20      |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5   | mg/kg    | 3.02       | < 1.50      |
| Aliphatic >EC21-EC35: EH_2D_AL   | DETSC 3521# | 3.4   | mg/kg    | < 3.40     | < 3.40      |
| Aliphatic >EC35-EC40: EH_2D_AL   | DETSC 3521# | 3.4   | mg/kg    | < 3.40     | < 3.40      |
| Aliphatic C5-C40: EH_2D+HS_1D_AL | DETSC 3521* | 10    | mg/kg    | 11.17      | 12.04       |
| Aromatic C5-C7: HS_1D_AR         | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01      |
| Aromatic C7-C8: HS_1D_AR         | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01      |
| Aromatic C8-C10: HS_1D_AR        | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01      |
| Aromatic >EC10-EC12: EH_2D_AR    | DETSC 3521# | 0.9   | mg/kg    | < 0.90     | < 0.90      |



|                                       | Lab No      |       |          |            |             |
|---------------------------------------|-------------|-------|----------|------------|-------------|
|                                       |             | .Sa   | ample ID | F-BH124    | F-BH113     |
|                                       |             |       | Depth    | 18.80      | 24.66-24.88 |
|                                       |             |       | Other ID |            |             |
|                                       |             | Sam   | ple Type | ES         | ES          |
|                                       |             | Sampl | ing Date | 02/08/2022 | 02/08/2022  |
|                                       |             | Sampl | ing Time | 1000       | 1200        |
| Test                                  | Method      | LOD   | Units    |            |             |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5   | mg/kg    | < 0.50     | < 0.50      |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | < 0.60     | < 0.60      |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4   | mg/kg    | < 1.40     | < 1.40      |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4   | mg/kg    | < 1.40     | < 1.40      |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10    | mg/kg    | < 10.00    | < 10.00     |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10    | mg/kg    | 11.21      | 17.32       |
| PAHs                                  |             |       |          |            |             |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03      |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     | < 0.10      |
| Phenols                               |             |       |          |            |             |
| Phenol - Monohydric                   | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3       |



#### Information in Support of the Analytical Results

*Our Ref* 22-15291 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|             |                          | Date     |                          | Holding time<br>exceeded for | Inappropriate container for |
|-------------|--------------------------|----------|--------------------------|------------------------------|-----------------------------|
| Lab No      | Sample ID                | Sampled  | Containers Received      | tests                        | tests                       |
| 2043036     | F-BH124 18.80 SOIL       | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |                              |                             |
| 2043037     | F-BH113 24.66-24.88 SOIL | 02/08/22 | GJ 250ml, GJ 60ml, PT 1L |                              |                             |
| Key: G-Glas | s P-Plastic J-Jar T-Tub  | ÷        | •                        |                              |                             |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued:

Certificate Number 22-15294

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-15294
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
  - Description 2 Soil samples.
  - Date Received 08-Aug-22
  - Date Started 08-Aug-22
- Date Completed 18-Aug-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood

Kirk Bridgewood General Manager



18-Aug-22



| Lab No                               |             |       |              | 2043042    | 2043043    |
|--------------------------------------|-------------|-------|--------------|------------|------------|
|                                      | .Sample ID  |       |              | F-BH120    | F-BH120    |
|                                      |             |       | Depth        | 14.80      | 20.00      |
|                                      |             |       | Other ID     |            |            |
|                                      |             | Sam   | ple Type     | ES         | ES         |
|                                      |             | Sampl | ing Date     | 03/08/2022 | 03/08/2022 |
|                                      |             | Sampl | ing Time     | 0900       | 0930       |
| Test                                 | Method      | LOD   | Units        |            |            |
| Preparation                          |             |       |              |            |            |
| Moisture Content                     | DETSC 1004  | 0.1   | %            | 15         | 9.1        |
| Metals                               |             |       |              |            |            |
| Arsenic                              | DETSC 2301# | 0.2   | mg/kg        | 6.5        | 24         |
| Beryllium                            | DETSC 2301# | 0.2   | mg/kg        | 1.0        | 0.7        |
| Boron, Water Soluble                 | DETSC 2311# | 0.2   | mg/kg        | 3.5        | 3.4        |
| Cadmium                              | DETSC 2301# | 0.1   | mg/kg        | 0.1        | < 0.1      |
| Chromium III                         | DETSC 2301* | 0.15  | mg/kg        | 31         | 28         |
| Chromium, Hexavalent                 | DETSC 2204* | 1     | mg/kg        | < 1.0      | < 1.0      |
| Copper                               | DETSC 2301# | 0.2   | mg/kg        | 36         | 34         |
| Lead                                 | DETSC 2301# | 0.3   | mg/kg        | 18         | 13         |
| Mercury                              | DETSC 2325# | 0.05  | mg/kg        | < 0.05     | < 0.05     |
| Nickel                               | DETSC 2301# | 1     | mg/kg        | 33         | 30         |
| Selenium                             | DETSC 2301# | 0.5   | mg/kg        | < 0.5      | 0.6        |
| Vanadium                             | DETSC 2301# | 0.8   | mg/kg        | 40         | 75         |
| Zinc                                 | DETSC 2301# | 1     | mg/kg        | 59         | 54         |
| Inorganics                           |             |       |              |            |            |
| pH                                   | DETSC 2008# |       | Ha           | 9.0        | 9.4        |
| Cyanide, Total                       | DETSC 2130# | 0.1   | mg/kg        | < 0.1      | < 0.1      |
| Cyanide, Free                        | DETSC 2130# | 0.1   | mg/kg        | < 0.1      | < 0.1      |
| Thiocvanate                          | DETSC 2130# | 0.6   | mg/kg        | < 0.6      | < 0.6      |
| Organic matter                       | DETSC 2002# | 0.1   | <u> </u>     | 1.0        | 0.8        |
| Nitrate as NO3                       | DETSC 2055  | 1     | mg/kg        | < 1.0      | < 1.0      |
| Sulphate Aqueous Extract as SO4      | DETSC 2076# | 10    | mg/l         | 190        | 200        |
| Sulphide                             | DETSC 2024* | 10    | mg/kg        | 28         | 32         |
| Sulphur (free)                       | DETSC 3049# | 0.75  | mg/kg        | < 0.75     | < 0.75     |
| Sulphur as S. Total                  | DETSC 2320  | 0.01  | %            | 0.03       | 0.62       |
| Sulphate as SO4. Total               | DETSC 2321# | 0.01  | %            | 0.08       | 0.02       |
| Petroleum Hydrocarbons               | DE100 LOLIN | 0.01  | 70           | 0.00       | 0.25       |
| Aliphatic C5-C6: HS_1D_AI            | DFTSC 3321* | 0.01  | mg/kg        | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AI            | DETSC 3321* | 0.01  | mg/kg        | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS 1D Al           | DETSC 3321* | 0.01  | mg/kg        | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AI       | DETSC 3521# | 15    | mg/kg        | < 1 50     | < 1 50     |
| Aliphatic >EC12-EC16: FH_2D_Al       | DETSC 3521# | 1.5   | mø/kø        | < 1.00     | < 1 20     |
| Aliphatic >EC16-EC21: FH_2D_Al       | DETSC 3521# | 1 5   | mø/kø        | < 1 50     | < 1 50     |
| Aliphatic >EC21-EC35: FH_2D_Al       | DETSC 3521# | 3.4   | mø/kø        | < 3.40     | < 3 40     |
| Aliphatic >EC35-FC40: FH_2D_AI       | DFTSC 3521# | 3.4   | mø/kø        | < 3.40     | < 3 40     |
| Aliphatic C5-C40: FH 2D+HS 1D Al     | DFTSC 3521# | 10    | mø/kø        | < 10 00    | < 10 00    |
| Aromatic C5-C7: HS_1D_AR             | DFTSC 3321* | 0.01  | mø/kø        | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR             | DFTSC 3321* | 0.01  | mø/kø        | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR            | DFTSC 3321* | 0.01  | mg/kg        | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12 EH 2D $\Delta R$ | DETSC 3521# | 0.01  | mg/kg        | < 0.01     | < 0.01     |
|                                      | 5C13C 3321# | 0.5   | <u>۳، /۶</u> | - 0.50     | - 0.50     |



|                                       |             |       | 2043042  | 2043043    |            |
|---------------------------------------|-------------|-------|----------|------------|------------|
|                                       |             | .Sa   | ample ID | F-BH120    | F-BH120    |
|                                       |             |       | Depth    | 14.80      | 20.00      |
|                                       |             |       | Other ID |            |            |
|                                       |             | Sam   | ple Type | ES         | ES         |
|                                       |             | Sampl | ing Date | 03/08/2022 | 03/08/2022 |
|                                       |             | Sampl | ing Time | 0900       | 0930       |
| Test                                  | Method      | LOD   | Units    |            |            |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5   | mg/kg    | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | < 0.60     | < 0.60     |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4   | mg/kg    | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4   | mg/kg    | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10    | mg/kg    | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10    | mg/kg    | < 10.00    | < 10.00    |
| PAHs                                  |             |       |          |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     | < 0.10     |
| Phenols                               |             |       |          |            |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      |



#### Information in Support of the Analytical Results

Our Ref 22-15294 Client Ref 60678042 Contract NZT FEED GI

#### **Containers Received & Deviating Samples**

|                |                                 | Date            |  | Holding time<br>exceeded for | Inappropriate container for |
|----------------|---------------------------------|-----------------|--|------------------------------|-----------------------------|
| Lab No         | Sample ID                       | Sampled         | Containers Received  | tests                        | tests                       |
| 2043042        | F-BH120 14.80 SOIL              | 03/08/22        | GJ 250ml, GJ 60ml, PT 1L   |                              |                             |
| 2043043        | F-BH120 20.00 SOIL              | 03/08/22        | GJ 250ml, GJ 60ml, PT 1L   |                              |                             |
| Key: G-Glass   | P-Plastic J-Jar T-Tub           |                 |  |                              |                             |
| DETS cannot    | be held responsible for the ir  | ntegrity of sar | nples received whereby the laboratory did not undertake the sampling.      | In this instance san         | nples received may          |
| be deviating   | . Deviating Sample criteria are | e based on Bri  | itish and International standards and laboratory trials in conjunction wit | th the UKAS note 'G          | uidance on                  |
| Deviating Sa   | mples'. All samples received a  | are listed abov | ve. However, those samples that have additional comments in relation t     | o hold time, inappr:         | opriate containers          |
| etc are devia  | ating due to the reasons state  | d. This means   | that the analysis is accredited where applicable, but results may be con   | npromised due to s           | ample deviations. If        |
| no sampled     | date (soils) or date+time (wat  | ers) has been   | supplied then samples are deviating. However, if you are able to suppl     | y a sampled date (a          | nd time for waters)         |
| this will prev | vent samples being reported a   | is deviating w  | here specific hold times are not exceeded and where the container sup      | plied is suitable.           |                             |
|                |                                 |                 |  |                              |                             |

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued: 24-Aug-22

Certificate Number 22-15615 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-15615
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 9 Soil samples, 4 Leachate samples.
  - Date Received 11-Aug-22
  - Date Started 11-Aug-22
- Date Completed 24-Aug-22
- *Test Procedures* Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood

Kirk Bridgewood General Manager



# *i* DETS

## Summary of Chemical Analysis Soil Samples

|                                 |               |       | Lab No     | 2044382      | 2044383    | 2044384      | 2044385    | 2044386      | 2044387     |
|---------------------------------|---------------|-------|------------|--------------|------------|--------------|------------|--------------|-------------|
|                                 |               |       | .Sample ID |              | F-BH125    | F-BH125      | F-BH125    | F-BH125      | F-BH130     |
|                                 |               | Depth |            | 3.80         | 4.80       | 5.30         | 6.30       | 11.80        | 4.25        |
|                                 |               |       | Other ID   |              |            |              |            |              |             |
|                                 |               | Sam   | ple Type   | SOIL         | SOIL       | SOIL         | SOIL       | SOIL         | SOIL        |
|                                 |               | Sampl | ing Date   | 04/08/2022   | 04/08/2022 | 04/08/2022   | 04/08/2022 | 05/08/2022   | 04/08/2022  |
| _                               |               | Sampl | ing Time   | 1000         | 1030       | 1100         | 1130       | 1500         | 1300        |
| Test                            | Method        | LOD   | Units      |              |            |              |            |              |             |
| Preparation                     |               | 0.4   | 0/         | 10           | 0.1        | 10           | 20         | 24           | 20          |
| Moisture Content                | DETSC 1004    | 0.1   | %          | 10           | 9.1        | 19           | 26         | 24           | 20          |
| ivietais                        | DETCC 2204 // | 0.2   |            | 2.5          | 10         | 0.0          | 6.0        | 20           | 10          |
| Arsenic                         | DETSC 2301#   | 0.2   | mg/kg      | 3.5          | 19         | 8.2          | 0.0        | 20           | 19          |
| Berymum<br>Boron, Water Soluble | DETSC 2301#   | 0.2   | mg/kg      | 5.9          | 0.3        | 0.4          | 0.5        | 0.5          | 2.0         |
| Cadmium                         | DETSC 2311#   | 0.2   | mg/kg      | 0.0          | 1.2        | 0.9          | 2.7        | 5.5<br>< 0.1 | 1.5         |
| Chromium III                    | DETSC 2301#   | 0.1   | mg/kg      | 14           | 190        | < 0.1        | 0.2        | > 0.1        | 0.5         |
| Chromium Hexavalent             | DETSC 2301*   | 0.13  | mg/kg      | 210          | 400        | 9.7<br>< 1.0 | < 1.0      | < 1.0        | < 1.0       |
| Copper                          | DETSC 2204    | 0.2   | mg/kg      | < 1.0<br>5 0 | 25         | 3 5          | 12         | 12           | Q1          |
| Lead                            | DETSC 2301#   | 0.2   | mg/kg      | 5.0<br>1 /   | 1/         | 20           | 16         | 12           | 61          |
| Mercury                         | DETSC 2301#   | 0.5   | mg/kg      | < 0.05       | < 0.05     | < 0.05       | < 0.05     | < 0.05       | < 0.05      |
| Nickel                          | DETSC 2323#   | 0.05  | mg/kg      | 1 2          | 25         | 4 1          | 16         | 19           | 22          |
| Selenium                        | DETSC 2301#   | 0.5   | mg/kg      | 1.2          | < 0.5      | < 0.5        | < 0.5      | < 0.5        | 0.9         |
| Vanadium                        | DETSC 2301#   | 0.8   | mg/kg      | 43           | 2200       | 36           | 55         | 36           | 93          |
| Zinc                            | DETSC 2301#   | 1     | mg/kg      | 4.1          | 46         | 18           | 63         | 46           | 100         |
| Inorganics                      |               |       | 0, 0       |              | _          | _            |            | -            |             |
| pH                              | DETSC 2008#   |       | pН         | 11.4         | 10.0       | 10.6         | 9.2        | 8.7          | 8.9         |
| Cvanide. Total                  | DETSC 2130#   | 0.1   | mg/kg      | 0.2          | < 0.1      | < 0.1        | 0.2        | < 0.1        | < 0.1       |
| Cvanide. Free                   | DETSC 2130#   | 0.1   | mg/kg      | < 0.1        | < 0.1      | < 0.1        | < 0.1      | < 0.1        | < 0.1       |
| Thiocvanate                     | DETSC 2130#   | 0.6   | mg/kg      | < 0.6        | < 0.6      | 0.7          | < 0.6      | 1.0          | 1.5         |
| Organic matter                  | DETSC 2002#   | 0.1   | %          | 1.0          | 4.0        | 0.5          | 2.3        | 3.1          | 8.1         |
| Nitrate as NO3                  | DETSC 2055    | 1     | mg/kg      | < 1.0        | < 1.0      | < 1.0        | < 1.0      | < 1.0        | < 1.0       |
| Sulphate Aqueous Extract as SOA | DETSC 2035    | 10    | mg/l       | 610          | 620        | 280          | 110        | 640          | 1300        |
| Sulphide                        | DETSC 2070#   | 10    | ma/ka      | 3200         | /80        | 190          | 120        | 120          | 560         |
| Sulphur (free)                  | DETSC 2024    | 0.75  | mg/kg      | 110          | 5.8        | 13           | 21         | 26           | <u>المح</u> |
|                                 | DETSC 3049#   | 0.75  | 0/         | 0.27         | 0.0        | 1.3          | 0.10       | 20           | 4.5         |
| Sulphoto os CO4. Total          | DETSC 2320    | 0.01  | 70         | 0.57         | 0.20       | 0.00         | 0.10       | 0.45         | 0.42        |
| Suprate as 504, Total           | DETSC 2321#   | 0.01  | 70         | 1.0          | 0.27       | 0.16         | 0.10       | 0.17         | 1.2         |
|                                 |               | 0.01  | ma/ka      | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
| Aliphatic CS-C8. HS_1D_AL       | DETSC 3321*   | 0.01  | iiig/kg    | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
|                                 | DETSC 3321*   | 0.01  | mg/kg      | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
| Allphatic C8-C10: HS_1D_AL      | DETSC 3321*   | 0.01  | mg/kg      | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
| Aliphatic >EC10-EC12: EH_2D_AL  | DETSC 3521#   | 1.5   | mg/kg      | < 1.50       | < 1.50     | 2.01         | < 1.50     | < 1.50       | < 1.50      |
| Aliphatic >EC16-EC21: EH_2D_AL  | DETSC 3521#   | 1.5   | mg/kg      | < 1.50       | < 1.50     | 3.36         | < 1.50     | < 1.50       | 2.32        |
| Aliphatic >EC21-EC35: EH_2D_AL  | DETSC 3521#   | 3.4   | mg/kg      | < 3.40       | < 3.40     | < 3.40       | < 3.40     | < 3.40       | < 3.40      |
| Aliphatic >EC35-EC40: EH_2D_AL  | DETSC 3521#   | 3.4   | mg/kg      | < 3.40       | < 3.40     | < 3.40       | < 3.40     | < 3.40       | < 3.40      |
| Aromatic C5-C7: HS_1D_AR        | DETSC 3321*   | 0.01  | mg/kg      | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
| Aromatic C7-C8: HS_1D_AR        | DETSC 3321*   | 0.01  | mg/kg      | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
| Aromatic C8-C10: HS_1D_AR       | DETSC 3321*   | 0.01  | mg/kg      | < 0.01       | < 0.01     | < 0.01       | < 0.01     | < 0.01       | < 0.01      |
| Aromatic >EC10-EC12: EH_2D_AR   | DETSC 3521#   | 0.9   | mg/kg      | < 0.90       | < 0.90     | < 0.90       | < 0.90     | < 0.90       | < 0.90      |
| Aromatic >EC12-EC16: EH_2D_AR   | DETSC 3521#   | 0.5   | mg/kg      | < 0.50       | < 0.50     | < 0.50       | < 0.50     | < 0.50       | < 0.50      |
| Aromatic >EC16-EC21: EH_2D_AR   | DETSC 3521#   | 0.6   | mg/kg      | 1.58         | 1.33       | 1.07         | 1.57       | 1.10         | 1.09        |

# *i* DETS

## Summary of Chemical Analysis Soil Samples

|                               |             |            |          |         | 1       | i          |            |            |         |
|-------------------------------|-------------|------------|----------|---------|---------|------------|------------|------------|---------|
|                               |             | Lab No     |          | 2044382 | 2044383 | 2044384    | 2044385    | 2044386    | 2044387 |
|                               |             | .Sample ID |          | F-BH125 | F-BH125 | F-BH125    | F-BH125    | F-BH125    | F-BH130 |
|                               |             | Depth      |          | 3.80    | 4.80    | 5.30       | 6.30       | 11.80      | 4.25    |
|                               |             | Com        | otner ID |         | 6011    | 6011       | 601        | 601        | 6011    |
|                               |             | Sam        | pie Type | SOIL    | SOIL    | SOIL       | SUIL       | SOIL       | SUIL    |
|                               |             | Sampi      | ing Date | 1000    | 1020    | 04/08/2022 | 04/08/2022 | 15/08/2022 | 1200    |
| Test                          | Method      |            | Inits    | 1000    | 1050    | 1100       | 1150       | 1500       | 1500    |
| Aromatic >EC21-EC35: EH 2D AR | DETSC 3521# | 1.4        | mg/kg    | < 1.40  | < 1.40  | < 1.40     | < 1.40     | < 1.40     | < 1.40  |
| Aromatic >EC35-EC40: EH 2D AR | DETSC 3521* | 1.4        | mg/kg    | < 1.40  | < 1.40  | < 1.40     | < 1.40     | < 1.40     | < 1.40  |
| PAHs                          |             |            | 0, 0     |         |         | _          | _          | _          | _       |
| Acenaphthene                  | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Acenaphthylene                | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Anthracene                    | DETSC 3303  | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Benzo(a)anthracene            | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Benzo(a)pyrene                | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Benzo(b)fluoranthene          | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Benzo(g,h,i)perylene          | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Benzo(k)fluoranthene          | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Chrysene                      | DETSC 3303  | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Dibenzo(a,h)anthracene        | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Fluoranthene                  | DETSC 3303# | 0.03       | mg/kg    | 0.05    | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Fluorene                      | DETSC 3303  | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Indeno(1,2,3-c,d)pyrene       | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Naphthalene                   | DETSC 3303# | 0.03       | mg/kg    | < 0.03  | 0.04    | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Phenanthrene                  | DETSC 3303# | 0.03       | mg/kg    | 0.03    | 0.04    | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| Pyrene                        | DETSC 3303# | 0.03       | mg/kg    | 0.04    | < 0.03  | < 0.03     | < 0.03     | < 0.03     | < 0.03  |
| PAH - USEPA 16, Total         | DETSC 3303  | 0.1        | mg/kg    | 0.13    | < 0.10  | < 0.10     | < 0.10     | < 0.10     | < 0.10  |
| PCBs                          |             |            |          |         |         |            |            |            |         |
| PCB 28 + PCB 31               | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 52                        | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 101                       | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 118                       | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 153                       | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 138                       | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 180                       | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| РСВ 77                        | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 81                        | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 105                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 114                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 118                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 123                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 126                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 156                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 157                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 167                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 169                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 189                       | DETSC 3401* | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |
| PCB 7 Total                   | DETSC 3401# | 0.01       | mg/kg    |         | < 0.01  |            |            |            | < 0.01  |



|                         |             |            | Lab No   | 2044382    | 2044383    | 2044384    | 2044385    | 2044386    | 2044387    |
|-------------------------|-------------|------------|----------|------------|------------|------------|------------|------------|------------|
|                         |             | .Sample ID |          | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH130    |
|                         |             |            | Depth    | 3.80       | 4.80       | 5.30       | 6.30       | 11.80      | 4.25       |
|                         |             |            | Other ID |            |            |            |            |            |            |
|                         |             | Sam        | ple Type | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
|                         |             | Sampl      | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 | 05/08/2022 | 04/08/2022 |
|                         |             | Sampl      | ing Time | 1000       | 1030       | 1100       | 1130       | 1500       | 1300       |
| Test                    | Method      | LOD        | Units    |            |            |            |            |            |            |
| Phenols                 |             |            |          |            |            |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3        | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| p-cresol                | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01       | mg/kg    |            |            |            |            |            | < 0.01     |
| Benzene                 | \$*         | <2         | ug/kg    |            | 8          | <2         |            | <2         | <2         |
| Toluene                 | \$*         | <5         | ug/kg    |            | 10         | <5         |            | <5         | <5         |
| Ethylbenzene            | \$*         | <2         | ug/kg    |            | 6          | <2         |            | <2         | <2         |
| p & m-xylene            | \$*         | <2         | ug/kg    |            | 7          | <2         |            | <2         | <2         |
| o-xylene                | \$*         | <2         | ug/kg    |            | 4          | <2         |            | <2         | <2         |
| МТВЕ                    | \$*         | <5         | ug/kg    |            | <5         | <5         |            | <5         | <5         |
| TAME                    | \$*         | <5         | ug/kg    |            | <5         | <5         |            | <5         | <5         |



|                                 |             | Lab No |          |            | 2044389    | 2044390    |
|---------------------------------|-------------|--------|----------|------------|------------|------------|
|                                 |             | .Sa    | ample ID | F-BH130    | F-BH130    | F-BH130    |
|                                 |             |        | Depth    | 4.95       | 6.60       | 9.00       |
|                                 |             |        | Other ID |            |            |            |
|                                 |             | Sam    | ple Type | SOIL       | SOIL       | SOIL       |
|                                 |             | Sampl  | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 |
|                                 |             | Sampl  | ing Time | 1330       | 1400       | 1500       |
| Test                            | Method      | LOD    | Units    |            |            |            |
| Preparation                     |             |        |          |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 17         | 21         | 24         |
| Metals                          |             |        |          |            |            |            |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 8.4        | 5.9        | 19         |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 6.1        | < 0.2      | 0.9        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 1.0        | 0.7        | 2.8        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | < 0.1      | < 0.1      | 0.1        |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 11         | 3.9        | 15         |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 16         | 4.5        | 9.2        |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 4.8        | 6.2        | 9.5        |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05     | < 0.05     | < 0.05     |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 5.5        | 3.6        | 15         |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 0.7        | < 0.5      | < 0.5      |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 40         | 13         | 30         |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 49         | 16         | 53         |
| Inorganics                      | ·           | . I    |          |            |            |            |
| рН                              | DETSC 2008# |        | рН       | 11.2       | 8.7        | 9.4        |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      | < 0.1      |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | 3.3        | 1.0        | 0.9        |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 1.4        | 1.2        | 2.9        |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | < 1.0      | < 1.0      | < 1.0      |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 450        | 180        | 340        |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 3200       | 160        | 190        |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 5.5        | 19         | 1.8        |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.37       | 0.08       | 0.38       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 1.2        | 0.17       | 0.20       |
| Petroleum Hydrocarbons          |             | - 1    |          |            |            |            |
| Aliphatic C5-C6: HS 1D AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Alinhatic C6-C8: HS 1D AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS 1D AL      | DFTSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >FC10-FC12; FH 2D Al  | DETSC 3521# | 1.5    | mø/kg    | < 1.50     | 2.03       | < 1.50     |
| Aliphatic >EC16-EC21: EH_2D_AL  | DETSC 3521# | 15     | mø/kø    | < 1 50     | 3.08       | < 1 50     |
| Aliphatic >EC21_EC25: EH_2D_AL  | DETSC 3521  | 3.4    | mg/kg    | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic >EC25 EC40: EH 2D AL  | DETCC 2521# | 3.1    | mg/kg    | < 3.40     | < 3.40     | < 3.40     |
|                                 | DE13C 3321# | 0.01   | ma/ka    | < 0.01     | < 0.01     | < 0.01     |
|                                 | DEISC 3321  | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
|                                 | DEISC 3321* | 0.01   | mg/кg    | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AK       | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR   | DETSC 3521# | 0.9    | mg/kg    | < 0.90     | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR   | DETSC 3521# | 0.5    | mg/kg    | < 0.50     | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR   | DETSC 3521# | 0.6    | mg/kg    | 1.21       | 0.87       | 1.06       |



| Sample ID<br>Depth         F-BH130         F-B  |                               |             |       | Lab No    | 2044388    | 2044389    | 2044390    |
|---|-------------------------------|-------------|-------|-----------|------------|------------|------------|
| Depth<br>Other ID         4.95         6.60         9.00           Sample Type<br>Sampling Date         5001         5001         5001         5001           Test         Method         LOD         1330         1400         1500           Aromatic >EC21-EC35: EH_2D_AR         DETSC 3521#         1.4         mg/kg         <1.40  |                               |             | .Sa   | ample ID  | F-BH130    | F-BH130    | F-BH130    |
| Chther ID         Sample Type         Sonil,         Sonil, <th< td=""><td></td><td></td><td></td><td>Depth</td><td>4.95</td><td>6.60</td><td>9.00</td></th<>   |                               |             |       | Depth     | 4.95       | 6.60       | 9.00       |
| Sample Type         Solit         Soli  |                               |             |       | Other ID  |            |            |            |
| Sampling Time         Gu/08/2022<br>(3008/2022)         Gu/08/2022<br>(3008/2022)         Gu/08/2022<br>(3008/2022)           Test         Method         LOD         Units         1300         1400         1500           Aromatic >EC3F-EC40: EH_2D_AR         DETSC 3521#         1.4         mg/kg         <1.40  |                               |             | Sam   | ple Type  | SOIL       | SOIL       | SOIL       |
| Sampling Time         130         1400         1500           Aromatic >EC21-EC35: EH_2D_AR         DETSC 3521#         1.4         mg/kg         <1.40         <1.40         <1.40           Aromatic >EC35-EC40: EH_2D_AR         DETSC 3521*         1.4         mg/kg         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40         <1.40   |                               |             | Samp  | ling Date | 04/08/2022 | 04/08/2022 | 04/08/2022 |
| Test         Method         LOD         Units           Aromatic >EC21+EC35: EH_ZD_AR         DETSC 3521#         1.4         mg/kg         < 1.40  | _                             |             | Sampl | ing Time  | 1330       | 1400       | 1500       |
| Aromatic >EC21-EC35: EH_2D_AR       DETSC 3521#       1.4       mg/kg       <1.40   | Test                          | Method      | LOD   | Units     |            |            |            |
| Aromatic >EC35-EC40: EH_2D_AR       DETSC 3521*       1.4       mg/kg       <1.40   | Aromatic >EC21-EC35: EH_2D_AR | DETSC 3521# | 1.4   | mg/kg     | < 1.40     | < 1.40     | < 1.40     |
| PARS         Composition         Composition         Composition           Accenaphthylene         DETSC 3303#         0.03         mg/kg         <0.03   | Aromatic >EC35-EC40: EH_2D_AR | DETSC 3521* | 1.4   | mg/kg     | < 1.40     | < 1.40     | < 1.40     |
| Acenaphthene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03 <th< td=""><td></td><td>DETCO 2202#</td><td>0.02</td><td></td><td>10.00</td><td>. 0. 0.2</td><td>. 0. 0.2</td></th<>  |                               | DETCO 2202# | 0.02  |           | 10.00      | . 0. 0.2   | . 0. 0.2   |
| Accenaptifylene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03           Anthracene         DETSC 3303#         0.03         mg/kg         < 0.03  | Acenaphthene                  | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene         DETSC 3303         0.03         mg/kg         < 0.03         < 0.03         < 0.03           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         < 0.03  | Acenaphthylene                | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Benzo(b)fluoranthene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Benzo(b)fluoranthene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Benzo(k)fluoranthene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Chrysene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Dibenzo(a,h)anthracene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Fluoranthene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Fluoranthene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Fluoranthene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Indeno(1,2,3-c,d)pyrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3303# 0.01 mg/kg < 0.03 < 0.03 < 0.03<br>Phenanthrene DETSC 3401# 0.01 mg/kg < DETSC 3401# 0.01 mg/kg   | Anthracene                    | DETSC 3303  | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         < 0.03  | Benzo(a)anthracene            | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0.03         <0  | Benzo(a)pyrene                | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene         DETSC 3303#         0.03         mg/kg  Dispres (a, n) and may may   | Benzo(b)fluoranthene          | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03           Chrysene         DETSC 3303         0.03         mg/kg         < 0.03  | Benzo(g,h,i)perylene          | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Chrysene         DETSC 3303         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.   | Benzo(k)fluoranthene          | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03   | Chrysene                      | DETSC 3303  | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03 <th< td=""><td>Dibenzo(a,h)anthracene</td><td>DETSC 3303#</td><td>0.03</td><td>mg/kg</td><td>&lt; 0.03</td><td>&lt; 0.03</td><td>&lt; 0.03</td></th<>   | Dibenzo(a,h)anthracene        | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Fluorene         DETSC 3303         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.01   | Fluoranthene                  | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01  | Fluorene                      | DETSC 3303  | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Naphthalene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01  | Indeno(1,2,3-c,d)pyrene       | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Phenanthrene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.01         mg/kg         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         mg/kg  | Naphthalene                   | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Pyrene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.0   | Phenanthrene                  | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total         DETSC 3303         0.1         mg/kg         < 0.10         < 0.10           PCBs         PCB 28 + PCB 31         DETSC 3401#         0.01         mg/kg             PCB 52         DETSC 3401#         0.01         mg/kg              PCB 101         DETSC 3401#         0.01         mg/kg              PCB 118         DETSC 3401#         0.01         mg/kg              PCB 138         DETSC 3401#         0.01         mg/kg              PCB 138         DETSC 3401#         0.01         mg/kg              PCB 138         DETSC 3401#         0.01         mg/kg             PCB 180         DETSC 3401#         0.01         mg/kg             PCB 181         DETSC 3401*         0.01         mg/kg             PCB 181         DETSC 3401*         0.01         mg/kg             PCB 181         DETSC 3401*         0.01         mg/kg             PCB 114         DETSC 3  | Pyrene                        | DETSC 3303# | 0.03  | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| PCBs         DETSC 3401#         0.01         mg/kg         Image: Mark text of the state s | PAH - USEPA 16, Total         | DETSC 3303  | 0.1   | mg/kg     | < 0.10     | < 0.10     | < 0.10     |
| PCB 28 + PCB 31       DETSC 3401#       0.01       mg/kg         PCB 52       DETSC 3401#       0.01       mg/kg  | PCBs                          | 1           |       |           |            |            |            |
| PCB 52         DETSC 3401#         0.01         mg/kg           PCB 101         DETSC 3401#         0.01         mg/kg            PCB 118         DETSC 3401#         0.01         mg/kg             PCB 153         DETSC 3401#         0.01         mg/kg              PCB 138         DETSC 3401#         0.01         mg/kg               PCB 138         DETSC 3401#         0.01         mg/kg <td>PCB 28 + PCB 31</td> <td>DETSC 3401#</td> <td>0.01</td> <td>mg/kg</td> <td></td> <td></td> <td></td>   | PCB 28 + PCB 31               | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 101       DETSC 3401#       0.01       mg/kg         PCB 118       DETSC 3401#       0.01       mg/kg         PCB 153       DETSC 3401#       0.01       mg/kg         PCB 138       DETSC 3401#       0.01       mg/kg         PCB 138       DETSC 3401#       0.01       mg/kg         PCB 180       DETSC 3401#       0.01       mg/kg         PCB 77       DETSC 3401*       0.01       mg/kg         PCB 81       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401* <td>PCB 52</td> <td>DETSC 3401#</td> <td>0.01</td> <td>mg/kg</td> <td></td> <td></td> <td></td>   | PCB 52                        | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 118       DETSC 3401#       0.01       mg/kg         PCB 153       DETSC 3401#       0.01       mg/kg         PCB 138       DETSC 3401#       0.01       mg/kg         PCB 130       DETSC 3401#       0.01       mg/kg         PCB 180       DETSC 3401#       0.01       mg/kg         PCB 180       DETSC 3401*       0.01       mg/kg         PCB 177       DETSC 3401*       0.01       mg/kg         PCB 81       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401* </td <td>PCB 101</td> <td>DETSC 3401#</td> <td>0.01</td> <td>mg/kg</td> <td></td> <td></td> <td></td>  | PCB 101                       | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 153       DETSC 3401#       0.01       mg/kg         PCB 138       DETSC 3401#       0.01       mg/kg         PCB 180       DETSC 3401#       0.01       mg/kg         PCB 77       DETSC 3401*       0.01       mg/kg         PCB 81       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg  | PCB 118                       | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 138       DETSC 3401#       0.01       mg/kg         PCB 180       DETSC 3401#       0.01       mg/kg         PCB 77       DETSC 3401*       0.01       mg/kg         PCB 81       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 17 Total       DETSC 3401#       0.01       mg/kg  | PCB 153                       | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 180       DETSC 3401#       0.01       mg/kg       Image: Mark and the state of the state          | PCB 138                       | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 77       DETSC 3401*       0.01       mg/kg         PCB 81       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg   | PCB 180                       | DETSC 3401# | 0.01  | mg/kg     |            |            |            |
| PCB 81       DETSC 3401*       0.01       mg/kg         PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 17       DETSC 3401*       0.01       mg/kg  | РСВ 77                        | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 105       DETSC 3401*       0.01       mg/kg         PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 7 Total       DETSC 3401#       0.01       mg/kg   | PCB 81                        | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 114       DETSC 3401*       0.01       mg/kg         PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 7 Total       DETSC 3401#       0.01       mg/kg   | PCB 105                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 118       DETSC 3401*       0.01       mg/kg         PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 7 Total       DETSC 3401#       0.01       mg/kg  | PCB 114                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 123       DETSC 3401*       0.01       mg/kg         PCB 126       DETSC 3401*       0.01       mg/kg         PCB 156       DETSC 3401*       0.01       mg/kg         PCB 157       DETSC 3401*       0.01       mg/kg         PCB 167       DETSC 3401*       0.01       mg/kg         PCB 169       DETSC 3401*       0.01       mg/kg         PCB 189       DETSC 3401*       0.01       mg/kg         PCB 7 Total       DETSC 3401#       0.01       mg/kg   | PCB 118                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 126         DETSC 3401*         0.01         mg/kg  | PCB 123                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 156         DETSC 3401*         0.01         mg/kg           PCB 157         DETSC 3401*         0.01         mg/kg           PCB 167         DETSC 3401*         0.01         mg/kg           PCB 169         DETSC 3401*         0.01         mg/kg           PCB 189         DETSC 3401*         0.01         mg/kg           PCB 7 Total         DETSC 3401#         0.01         mg/kg   | PCB 126                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 157         DETSC 3401*         0.01         mg/kg           PCB 167         DETSC 3401*         0.01         mg/kg           PCB 169         DETSC 3401*         0.01         mg/kg           PCB 189         DETSC 3401*         0.01         mg/kg           PCB 7 Total         DETSC 3401#         0.01         mg/kg  | PCB 156                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 167         DETSC 3401*         0.01         mg/kg           PCB 169         DETSC 3401*         0.01         mg/kg           PCB 189         DETSC 3401*         0.01         mg/kg           PCB 7 Total         DETSC 3401#         0.01         mg/kg   | PCB 157                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 169         DETSC 3401*         0.01         mg/kg           PCB 189         DETSC 3401*         0.01         mg/kg           PCB 7 Total         DETSC 3401#         0.01         mg/kg  | PCB 167                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 189         DETSC 3401*         0.01         mg/kg           PCB 7 Total         DETSC 3401#         0.01         mg/kg   | PCB 169                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
| PCB 7 Total DETSC 3401# 0.01 mg/kg  | PCB 189                       | DETSC 3401* | 0.01  | mg/kg     |            |            |            |
|   | PCB 7 Total                   | DETSC 3401# | 0.01  | mg/kg     |            |            |            |



|                         |             | Lab No | 2044388  | 2044389    | 2044390    |            |
|-------------------------|-------------|--------|----------|------------|------------|------------|
|                         |             | .Sa    | ample ID | F-BH130    | F-BH130    | F-BH130    |
|                         |             |        | Depth    | 4.95       | 6.60       | 9.00       |
|                         |             |        | Other ID |            |            |            |
|                         |             | Sam    | ple Type | SOIL       | SOIL       | SOIL       |
|                         |             | Sampl  | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 |
|                         |             | Sampl  | ing Time | 1330       | 1400       | 1500       |
| Test                    | Method      | LOD    | Units    |            |            |            |
| Phenols                 |             |        |          |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3    | mg/kg    | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| p-cresol                | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01   | mg/kg    |            |            |            |
| Benzene                 | \$*         | <2     | ug/kg    | <2         | <2         |            |
| Toluene                 | \$*         | <5     | ug/kg    | <5         | <5         |            |
| Ethylbenzene            | \$*         | <2     | ug/kg    | <2         | <2         |            |
| p & m-xylene            | \$*         | <2     | ug/kg    | <2         | <2         |            |
| o-xylene                | \$*         | <2     | ug/kg    | <2         | <2         |            |
| МТВЕ                    | \$*         | <5     | ug/kg    | <5         | <5         |            |
| TAME                    | \$*         | <5     | ug/kg    | <5         | <5         |            |



## Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            |             |       |          | 2044202    | 2044207    |
|----------------------------|-------------|-------|----------|------------|------------|
|                            |             | -     | 2044383  | 2044387    |            |
|                            |             | .Si   | F-BH125  | F-BH130    |            |
|                            |             |       | Depth    | 4.80       | 4.25       |
|                            |             |       | Other ID |            |            |
|                            |             | Sam   | ple Type | SOIL       | SOIL       |
|                            |             | Samp  | ing Date | 04/08/2022 | 04/08/2022 |
|                            |             | Sampl | ing Time | 1030       | 1300       |
| Test                       | Method      | LOD   | Units    |            |            |
| VOCs                       |             |       |          |            | <b></b>    |
| Vinyl Chloride             | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,1-dichloroethane         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 2,2-dichloropropane        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Bromochloromethane         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Chloroform                 | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,1-dichloropropene        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Carbon tetrachloride       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Benzene                    | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dichloroethane         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Trichloroethylene          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dichloropropane        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Dibromomethane             | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Bromodichloromethane       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Toluene                    | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Tetrachloroethylene        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,3-dichloropropane        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Dibromochloromethane       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dibromoethane          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Chlorobenzene              | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Ethylbenzene               | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| m+p-Xylene                 | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| o-Xylene                   | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Styrene                    | DETSC 3431* | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Bromoform                  | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Isopropylbenzene           | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Bromobenzene               | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1 2 3-trichloropropane     | DFTSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| n-propylbenzene            | DETSC 3/131 | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 2 chlorotoluono            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
|                            | DET3C 3431  | 0.01  | IIIg/Kg  | < 0.01     | < 0.01     |
| 1,3,5-trimetnyibenzene     | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 4-chlorotoluene            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Tert-butylbenzene          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| sec-butylbenzene           | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |


## Summary of Chemical Analysis Soil VOC/SVOC Samples

|                             |             |       | Lab No   | 2044383    | 2044387    |
|-----------------------------|-------------|-------|----------|------------|------------|
|                             |             | .Sa   | ample ID | F-BH125    | F-BH130    |
|                             |             |       | Depth    | 4.80       | 4.25       |
|                             |             |       | Other ID |            |            |
|                             |             | Sam   | ple Type | SOIL       | SOIL       |
|                             |             | Sampl | ing Date | 04/08/2022 | 04/08/2022 |
|                             |             | Sampl | ing Time | 1030       | 1300       |
| Test                        | Method      | LOD   | Units    |            |            |
| p-isopropyltoluene          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| n-butylbenzene              | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Hexachlorobutadiene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| МТВЕ                        | DETSC 3431* | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| SVOCs                       |             |       |          |            |            |
| Phenol                      | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |            |
| Aniline                     | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Chlorophenol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Benzyl Alcohol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Methylphenol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 3&4-Methylphenol            | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |            |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |            |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |            |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |            |
| 2.4.5-Trichlorophenol       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 3-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 4-Nitrophenol               | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Dibenzofuran                | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2.6-Dinitrotoluene          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2.3.4.6-Tetrachlorophenol   | DFTSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Diethylphthalate            | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 4-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Methyl-4.6-Dinitrophenol  | DFTSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Diphenylamine               | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |



## Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            |             |       | Lab No   | 2044383    | 2044387    |
|----------------------------|-------------|-------|----------|------------|------------|
|                            |             | .Sa   | ample ID | F-BH125    | F-BH130    |
|                            |             |       | Depth    | 4.80       | 4.25       |
|                            |             |       | Other ID |            |            |
|                            |             | Sam   | ple Type | SOIL       | SOIL       |
|                            |             | Sampl | ing Date | 04/08/2022 | 04/08/2022 |
|                            |             | Sampl | ing Time | 1030       | 1300       |
| Test                       | Method      | LOD   | Units    |            |            |
| Hexachlorobenzene          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Pentachlorophenol          | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Di-n-butylphthalate        | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Butylbenzylphthalate       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Di-n-octylphthalate        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Dimethylphthalate          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Azobenzene                 | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Carbazole                  | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |

# *i* DETS

## Summary of Chemical Analysis

## **Leachate Samples**

|                            |             |       | Lab No    | 2044391    | 2044392    | 2044393    | 2044394    |
|----------------------------|-------------|-------|-----------|------------|------------|------------|------------|
|                            |             | .S    | ample ID  | F-BH125    | F-BH125    | F-BH130    | F-BH130    |
|                            |             |       | Depth     | 4.80       | 5.30       | 4.25       | 6.60       |
|                            |             |       | Other ID  |            |            |            |            |
|                            |             | Sam   | ple Type  | LEACHATE   | LEACHATE   | LEACHATE   | LEACHATE   |
|                            |             | Samp  | ling Date | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 |
|                            |             | Sampl | ing Time  | 1030       | 1100       | 1300       | 1400       |
| Test                       | Method      | LOD   | Units     |            |            |            |            |
| Preparation                |             |       |           |            |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |       |           | Y          | Y          | Y          | Y          |
| Metals                     |             |       |           |            |            |            |            |
| Arsenic, Dissolved         | DETSC 2306  | 0.16  | ug/l      | 53         | 11         | 1.8        | 0.92       |
| Boron, Dissolved           | DETSC 2306* | 12    | ug/l      | 34         | < 12       | 18         | 14         |
| Cadmium, Dissolved         | DETSC 2306  | 0.03  | ug/l      | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306* | 1     | ug/l      | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Chromium, Hexavalent       | DETSC 2203  | 0.007 | mg/l      | < 0.007    | < 0.007    | < 0.007    | < 0.007    |
| Copper, Dissolved          | DETSC 2306  | 0.4   | ug/l      | 5.0        | 2.1        | 1.4        | 1.2        |
| Iron, Dissolved            | DETSC 2306  | 5.5   | ug/l      | 8.8        | 7.5        | < 5.5      | < 5.5      |
| Lead, Dissolved            | DETSC 2306  | 0.09  | ug/l      | 4.6        | 1.6        | 2.1        | 2.2        |
| Mercury, Dissolved         | DETSC 2306  | 0.01  | ug/l      | 0.22       | 0.07       | < 0.01     | < 0.01     |
| Nickel, Dissolved          | DETSC 2306  | 0.5   | ug/l      | 2.5        | 1.4        | < 0.5      | < 0.5      |
| Selenium, Dissolved        | DETSC 2306  | 0.25  | ug/l      | 8.9        | 7.7        | 2.1        | 0.34       |
| Zinc, Dissolved            | DETSC 2306  | 1.3   | ug/l      | 2.2        | < 1.3      | 5.9        | 2.8        |
| Inorganics                 |             |       |           |            |            |            |            |
| рН                         | DETSC 2008  |       | pН        | 7.8        | 8.5        | 7.6        | 7.6        |
| Cyanide, Total Low Level   | DETSC 2131  | 0.1   | ug/l      | 2.4        | 1.3        | 0.1        | 0.1        |
| Cyanide, Free Low Level    | DETSC 2131  | 0.1   | ug/l      | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                | DETSC 2130  | 20    | ug/l      | 160        | 35         | 34         | 33         |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1   | mg/l      | 17.9       | 72.8       | 503        | 136        |
| Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015 | mg/l      | 0.14       | 0.23       | 0.29       | 14         |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015 | mg/l      | 0.13       | 0.22       | 0.27       | 13         |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015 | mg/l      | 0.13       | 0.22       | 0.27       | 11         |
|                            | DETSC 2055  | 0.013 | mg/l      | < 0.11     | < 0.10     | < 0.10     | 0.50       |
| Nitrite as NO2             | DETSC 2055  | 0.1   | mg/l      | < 0.10     | 0.10       | < 0.10     | 0.50       |
| Sulphoto os SO4            | DETSC 2055  | 0.1   | mg/l      | < 0.10     | 0.11       | < 0.10     | 0.11       |
| Sulphate as 304            | DETSC 2055  | 0.1   | mg/l      | 20         | 40         | < 0.10     | 1.0        |
| Paula                      | DETSC 2085  | 1     | mg/i      | 3.2        | 2.2        | 1.1        | 1.8        |
|                            |             | 0.01  |           | 0.01       | 0.02       | 10.01      | 40.01      |
| Acenaphtheles              | DETSC 3304  | 0.01  | ug/i      | 0.01       | 0.02       | < 0.01     | < 0.01     |
| Acenaphthylene             | DETSC 3304  | 0.01  | ug/i      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Anthracene                 | DETSC 3304  | 0.01  | ug/I      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(a)anthracene         | DETSC 3304* | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(a)pyrene             | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(b)fluoranthene       | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(g,h,i)perylene       | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(k)fluoranthene       | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Chrysene                   | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Dibenzo(a,h)anthracene     | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Fluoranthene               | DETSC 3304  | 0.01  | ug/l      | 0.02       | 0.02       | 0.02       | 0.02       |
| Fluorene                   | DETSC 3304  | 0.01  | ug/l      | 0.01       | 0.02       | 0.01       | < 0.01     |
| Indeno(1,2,3-c,d)pyrene    | DETSC 3304  | 0.01  | ug/l      | < 0.01     | < 0.01     | < 0.01     | < 0.01     |



## **Summary of Chemical Analysis**

### **Leachate Samples**

|              |            |       | Lab No   | 2044391    | 2044392    | 2044393    | 2044394    |
|--------------|------------|-------|----------|------------|------------|------------|------------|
|              |            | .Sa   | ample ID | F-BH125    | F-BH125    | F-BH130    | F-BH130    |
|              |            |       | Depth    | 4.80       | 5.30       | 4.25       | 6.60       |
|              |            |       | Other ID |            |            |            |            |
|              |            | Sam   | ple Type | LEACHATE   | LEACHATE   | LEACHATE   | LEACHATE   |
|              |            | Samp  | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 |
|              |            | Sampl | ing Time | 1030       | 1100       | 1300       | 1400       |
| Test         | Method     | LOD   | Units    |            |            |            |            |
| Naphthalene  | DETSC 3304 | 0.05  | ug/l     | < 0.05     | < 0.05     | < 0.05     | < 0.05     |
| Phenanthrene | DETSC 3304 | 0.01  | ug/l     | 0.02       | 0.03       | 0.02       | 0.02       |
| Pyrene       | DETSC 3304 | 0.01  | ug/l     | 0.02       | 0.01       | 0.02       | 0.01       |
| PAH Total    | DETSC 3304 | 0.2   | ug/l     | < 0.20     | < 0.20     | < 0.20     | < 0.20     |

# *i* DETS

## Summary of Asbestos Analysis Soil Samples

Our Ref 22-15615 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst     |
|---------|--------------|---------------|--------|----------|-------------|
| 2044382 | F-BH125 3.80 | SOIL          | NAD    | none     | D Wilkinson |
| 2044383 | F-BH125 4.80 | SOIL          | NAD    | none     | D Wilkinson |
| 2044387 | F-BH130 4.25 | SOIL          | NAD    | none     | D Wilkinson |
| 2044388 | F-BH130 4.95 | SOIL          | NAD    | none     | D Wilkinson |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Holdingtimo

Inappropriate

### Information in Support of the Analytical Results

Our Ref 22-15615 Client Ref 60678042 Contract NZT FEED GI

#### **Containers Received & Deviating Samples**

|              |                       |          |                          |              | mappropriate  |
|--------------|-----------------------|----------|--------------------------|--------------|---------------|
|              |                       | Date     |                          | exceeded for | container for |
| Lab No       | Sample ID             | Sampled  | Containers Received      | tests        | tests         |
| 2044382      | F-BH125 3.80 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044383      | F-BH125 4.80 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044384      | F-BH125 5.30 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044385      | F-BH125 6.30 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044386      | F-BH125 11.80 SOIL    | 05/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044387      | F-BH130 4.25 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044388      | F-BH130 4.95 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044389      | F-BH130 6.60 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044390      | F-BH130 9.00 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044391      | F-BH125 4.80 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044392      | F-BH125 5.30 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044393      | F-BH130 4.25 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2044394      | F-BH130 6.60 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| Kev: G-Glass | P-Plastic I-lar T-Tub |          |                          |              |               |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

#### Det

| Det                  | Acronym  |
|----------------------|----------|
| Aliphatic C5-C6      | HS_1D_AL |
| Aliphatic C6-C8      | HS_1D_AL |
| Aliphatic C8-C10     | HS_1D_AL |
| Aliphatic >EC10-EC12 | EH_2D_AL |
| Aliphatic >EC16-EC21 | EH_2D_AL |
| Aliphatic >EC21-EC35 | EH_2D_AL |
| Aliphatic >EC35-EC40 | EH_2D_AL |
| Aromatic C5-C7       | HS_1D_AR |
| Aromatic C7-C8       | HS_1D_AR |
| Aromatic C8-C10      | HS_1D_AR |
| Aromatic >EC10-EC12  | EH_2D_AR |
| Aromatic >EC12-EC16  | EH_2D_AR |
| Aromatic >EC16-EC21  | EH_2D_AR |
| Aromatic >EC21-EC35  | EH_2D_AR |
| Aromatic >EC35-EC40  | EH 2D AR |

End of Report



Issued: 23-Aug-22

Certificate Number 22-15617 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-15617
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
  - Description 2 Soil samples.
  - Date Received 11-Aug-22
  - Date Started 11-Aug-22
- Date Completed 23-Aug-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

emood

Kirk Bridgewood General Manager





## Summary of Chemical Analysis Soil Samples

|                                  |             |       | Lab No          | 2044407    | 2044408    |
|----------------------------------|-------------|-------|-----------------|------------|------------|
|                                  |             | .Sa   | ample ID        | F-BH125    | F-BH130    |
|                                  |             |       | Depth           | 14.80      | 22.00      |
|                                  |             |       | Other ID        |            |            |
|                                  |             | Sam   | ple Type        | SOIL       | SOIL       |
|                                  |             | Sampl | ing Date        | 05/08/2022 | 05/08/2022 |
|                                  |             | Sampl | ing Time        | 1600       | 1500       |
| Test                             | Method      | LOD   | Units           |            |            |
| Preparation                      |             |       |                 |            |            |
| Moisture Content                 | DETSC 1004  | 0.1   | %               | 18         | 21         |
| Metals                           |             |       |                 |            |            |
| Arsenic                          | DETSC 2301# | 0.2   | mg/kg           | 9.0        | 10         |
| Beryllium                        | DETSC 2301# | 0.2   | mg/kg           | 1.3        | 0.7        |
| Boron, Water Soluble             | DETSC 2311# | 0.2   | mg/kg           | 3.5        | 3.6        |
| Cadmium                          | DETSC 2301# | 0.1   | mg/kg           | < 0.1      | < 0.1      |
| Chromium III                     | DETSC 2301* | 0.15  | mg/kg           | 39         | 25         |
| Chromium, Hexavalent             | DETSC 2204* | 1     | mg/kg           | < 1.0      | < 1.0      |
| Copper                           | DETSC 2301# | 0.2   | mg/kg           | 27         | 19         |
| Lead                             | DETSC 2301# | 0.3   | mg/kg           | 17         | 12         |
| Mercury                          | DETSC 2325# | 0.05  | mg/kg           | < 0.05     | < 0.05     |
| Nickel                           | DETSC 2301# | 1     | mg/kg           | 43         | 25         |
| Selenium                         | DETSC 2301# | 0.5   | mg/kg           | < 0.5      | < 0.5      |
| Vanadium                         | DETSC 2301# | 0.8   | mg/kg           | 48         | 41         |
| Zinc                             | DETSC 2301# | 1     | mg/kg           | 61         | 52         |
| Inorganics                       |             |       |                 |            |            |
| рН                               | DETSC 2008# |       | рН              | 8.2        | 8.3        |
| Cyanide, Total                   | DETSC 2130# | 0.1   | mg/kg           | < 0.1      | < 0.1      |
| Cyanide, Free                    | DETSC 2130# | 0.1   | mg/kg           | < 0.1      | < 0.1      |
| Thiocyanate                      | DETSC 2130# | 0.6   | mg/kg           | < 0.6      | < 0.6      |
| Organic matter                   | DETSC 2002# | 0.1   | %               | 2.5        | 2.1        |
| Nitrate as NO3                   | DETSC 2055  | 1     | mg/kg           | < 1.0      | < 1.0      |
| Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10    | mg/l            | 150        | 410        |
| Sulphide                         | DETSC 2024* | 10    | mg/kg           | 59         | 75         |
| Sulphur (free)                   | DETSC 3049# | 0.75  | mg/kg           | < 0.75     | 1.5        |
| Sulphur as S, Total              | DETSC 2320  | 0.01  | %               | 0.04       | 0.23       |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01  | %               | 0.09       | 0.14       |
| Petroleum Hydrocarbons           |             | 1     |                 |            |            |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01  | mg/kg           | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL        | DETSC 3321* | 0.01  | mg/kg           | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL       | DETSC 3321* | 0.01  | mg/kg           | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL   | DETSC 3521# | 1.5   | mg/kg           | < 1.50     | 2.22       |
| Aliphatic >EC12-EC16: EH_2D_AL   | DETSC 3521# | 1.2   | mg/kg           | < 1.20     | 3.88       |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5   | mg/kg           | < 1.50     | 3.57       |
| Aliphatic >EC21-EC35: EH_2D_AL   | DETSC 3521# | 3.4   | mg/kg           | < 3.40     | < 3.40     |
| Aliphatic >EC35-EC40: EH 2D AL   | DETSC 3521# | 3.4   | mg/kg           | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH 2D+HS 1D AL | DETSC 3521* | 10    | mg/kg           | 13.48      | 18.33      |
| Aromatic C5-C7: HS_1D_AR         | DFTSC 3321* | 0.01  | mg/kg           | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS 1D AR         | DFTSC 3321* | 0.01  | mg/kg           | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AP        | DETSC 2221* | 0.01  | ۳۵/۱۰۵<br>ma/ka | < 0.01     | < 0.01     |
|                                  |             | 0.01  | mg/kg           | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR    | DETSC 3521# | 0.9   | mg/Kg           | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR    | DEISC 3521# | 0.5   | mg/kg           | < 0.50     | < 0.50     |



## Summary of Chemical Analysis Soil Samples

|                                       |             |       | Lab No   | 2044407    | 2044408    |
|---------------------------------------|-------------|-------|----------|------------|------------|
|                                       |             | .Sa   | ample ID | F-BH125    | F-BH130    |
|                                       |             |       | Depth    | 14.80      | 22.00      |
|                                       |             |       | Other ID |            |            |
|                                       |             | Sam   | ple Type | SOIL       | SOIL       |
|                                       |             | Sampl | ing Date | 05/08/2022 | 05/08/2022 |
|                                       |             | Sampl | ing Time | 1600       | 1500       |
| Test                                  | Method      | LOD   | Units    |            |            |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | 1.16       | 0.81       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4   | mg/kg    | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4   | mg/kg    | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10    | mg/kg    | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10    | mg/kg    | 19.80      | 24.50      |
| PAHs                                  |             |       |          |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     | < 0.10     |
| Phenols                               |             |       |          |            |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      |



inannronriate

### Information in Support of the Analytical Results

*Our Ref* 22-15617 *Client Ref* 60678042 Contract NZT FEED GI

#### **Containers Received & Deviating Samples**

|             |                         |          |                          | •• |            | mappropriate  |
|-------------|-------------------------|----------|--------------------------|----|------------|---------------|
|             |                         | Date     |                          | e  | ceeded for | container for |
| Lab No      | Sample ID               | Sampled  | Containers Received      | te | ests       | tests         |
| 2044407     | F-BH125 14.80 SOIL      | 05/08/22 | GJ 250ml, GJ 60ml, PT 1L |    |            |               |
| 2044408     | F-BH130 22.00 SOIL      | 05/08/22 | GJ 250ml, GJ 60ml, PT 1L |    |            |               |
| Key: G-Glas | s P-Plastic I-lar T-Tub |          |                          |    |            |               |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6     | HS_1D_AL          |
|---------------------|-------------------|
| Aliphatic C6-C8     | HS_1D_AL          |
| Aliphatic C8-C10    | HS_1D_AL          |
| Aliphatic >EC10-EC1 | 2 EH_2D_AL        |
| Aliphatic >EC12-EC1 | 6 EH_2D_AL        |
| Aliphatic >EC16-EC2 | 1 EH_2D_AL        |
| Aliphatic >EC21-EC3 | 5 EH_2D_AL        |
| Aliphatic >EC35-EC4 | 0 EH_2D_AL        |
| Aliphatic C5-C40    | EH_2D+HS_1D_AL    |
| Aromatic C5-C7      | HS_1D_AR          |
| Aromatic C7-C8      | HS_1D_AR          |
| Aromatic C8-C10     | HS_1D_AR          |
| Aromatic >EC10-EC1  | 2 EH_2D_AR        |
| Aromatic >EC12-EC1  | 6 EH_2D_AR        |
| Aromatic >EC16-EC2  | 1 EH_2D_AR        |
| Aromatic >EC21-EC3  | 5 EH_2D_AR        |
| Aromatic >EC35-EC4  | 0 EH_2D_AR        |
| Aromatic C5-C40     | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40  | EH_2D+HS_1D_Total |

#### End of Report



Issued:

24-Aug-22

Certificate Number 22-16049

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-16049
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 5 Soil samples, 2 Leachate samples.
  - Date Received 17-Aug-22
- Date Started 17-Aug-22
- Date Completed 24-Aug-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lemood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

Page 1 of 8



## Summary of Chemical Analysis Soil Samples

|                                  |             |            | Lab No   | 2046862    | 2046863    | 2046864    | 2046865    | 2046866    |
|----------------------------------|-------------|------------|----------|------------|------------|------------|------------|------------|
|                                  |             | .Sample ID |          | F-BH119    | F-BH119    | F-BH133    | F-BH133    | F-BH133    |
|                                  |             |            | Depth    | 2.90       | 4.30       | 0.70       | 2.70       | 5.00       |
|                                  |             |            | Other ID |            |            |            |            |            |
|                                  |             | Sam        | ple Type | ES         | ES         | ES         | ES         | ES         |
|                                  |             | Sampl      | ing Date | 09/08/2022 | 09/08/2022 | 09/08/2022 | 09/08/2022 | 09/08/2022 |
|                                  |             | Sampl      | ing Time | 1000       | 1200       | 1400       | 1430       | 0930       |
| Test                             | Method      | LOD        | Units    |            |            |            |            |            |
| Preparation                      |             |            |          |            |            |            |            |            |
| Moisture Content                 | DETSC 1004  | 0.1        | %        | 4.6        | 16         | 12         | 11         | 17         |
| Metals                           |             | I          |          |            |            |            |            |            |
| Arsenic                          | DETSC 2301# | 0.2        | mg/kg    | 8.4        | 9.5        | 27         | 13         | 7.0        |
| Beryllium                        | DETSC 2301# | 0.2        | mg/kg    | 0.5        | < 0.2      | 0.7        | 2.8        | < 0.2      |
| Boron, Water Soluble             | DETSC 2311# | 0.2        | mg/kg    | 1.2        | < 0.2      | 2.2        | 1.7        | 0.2        |
| Cadmium                          | DETSC 2301# | 0.1        | mg/kg    | 0.3        | < 0.1      | 1.0        | < 0.1      | < 0.1      |
| Chromium III                     | DETSC 2301* | 0.15       | mg/kg    | 720        | 4.7        | 430        | 89         | 6.5        |
| Chromium, Hexavalent             | DETSC 2204* | 1          | mg/kg    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                           | DETSC 2301# | 0.2        | mg/kg    | 63         | 4.0        | 110        | 15         | 4.7        |
| Lead                             | DETSC 2301# | 0.3        | mg/kg    | 26         | 21         | 79         | 7.6        | 15         |
| Mercury                          | DETSC 2325# | 0.05       | mg/kg    | < 0.05     | < 0.05     | 0.22       | < 0.05     | < 0.05     |
| Nickel                           | DETSC 2301# | 1          | mg/kg    | 14         | 2.9        | 26         | 13         | 2.9        |
| Selenium                         | DETSC 2301# | 0.5        | mg/kg    | 5.9        | < 0.5      | 3.0        | 0.9        | 0.6        |
| Vanadium                         | DETSC 2301# | 0.8        | mg/kg    | 1800       | 14         | 680        | 280        | 19         |
| Zinc                             | DETSC 2301# | 1          | mg/kg    | 54         | 31         | 240        | 18         | 22         |
| Inorganics                       |             |            |          |            |            |            |            |            |
| pH                               | DETSC 2008# |            | рН       | 11.5       | 9.0        | 10.1       | 9.7        | 9.5        |
| Cyanide, Total                   | DETSC 2130# | 0.1        | mg/kg    | 0.2        | < 0.1      | 4.4        | < 0.1      | < 0.1      |
| Cyanide, Free                    | DETSC 2130# | 0.1        | mg/kg    | < 0.1      | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                      | DETSC 2130# | 0.6        | mg/kg    | < 0.6      | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                   | DETSC 2002# | 0.1        | %        | 0.7        | 0.2        | 1.5        | 0.6        | 0.5        |
| Nitrate as NO3                   | DETSC 2055  | 1          | mg/kg    | 9.1        | 4.6        | 1.4        | 1.6        | < 1.0      |
| Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10         | mg/l     | 58         | 36         | 310        | 1200       | 21         |
| Sulphide                         | DETSC 2024* | 10         | mg/kg    | 340        | 16         | 180        | 1300       | 140        |
| Sulphur (free)                   | DETSC 3049# | 0.75       | mg/kg    | 1.1        | < 0.75     | 4.3        | 34         | < 0.75     |
| Sulphur as S, Total              | DETSC 2320  | 0.01       | %        | 0.15       | 0.02       | 0.13       | 0.18       | 0.02       |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01       | %        | 0.15       | 0.04       | 0.45       | 0.50       | 0.05       |
| Petroleum Hydrocarbons           |             |            |          |            |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01       | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL        | DETSC 3321* | 0.01       | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL       | DETSC 3321* | 0.01       | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL   | DETSC 3521# | 1.5        | mg/kg    | < 1.50     | < 1.50     | < 1.50     | < 1.50     | < 1.50     |
| Aliphatic >EC12-EC16: EH_2D_AL   | DETSC 3521# | 1.2        | mg/kg    | < 1.20     | < 1.20     | < 1.20     | < 1.20     | < 1.20     |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5        | mg/kg    | < 1.50     | < 1.50     | < 1.50     | < 1.50     | < 1.50     |
| Aliphatic >EC21-EC35: EH_2D_AL   | DETSC 3521# | 3.4        | mg/kg    | < 3.40     | < 3.40     | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic >EC35-EC40: EH_2D_AL   | DETSC 3521# | 3.4        | mg/kg    | < 3.40     | < 3.40     | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS_1D_AL | DETSC 3521* | 10         | mg/kg    | 11.56      | 13.10      | 12.53      | 12.40      | 13.24      |
| Aromatic C5-C7: HS_1D_AR         | DETSC 3321* | 0.01       | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR         | DETSC 3321* | 0.01       | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |

# 

## Summary of Chemical Analysis Soil Samples

| Lab No                                |             | 2046862 | 2046863  | 2046864    | 2046865    | 2046866    |            |            |
|---------------------------------------|-------------|---------|----------|------------|------------|------------|------------|------------|
| .Sample ID                            |             | F-BH119 | F-BH119  | F-BH133    | F-BH133    | F-BH133    |            |            |
|                                       |             |         | Depth    | 2.90       | 4.30       | 0.70       | 2.70       | 5.00       |
|                                       |             | (       | Other ID |            |            |            |            |            |
|                                       |             | Sam     | ple Type | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampl   | ing Date | 09/08/2022 | 09/08/2022 | 09/08/2022 | 09/08/2022 | 09/08/2022 |
|                                       |             | Sampli  | ing Time | 1000       | 1200       | 1400       | 1430       | 0930       |
| Test                                  | Method      | LOD     | Units    |            |            |            |            |            |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01    | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9     | mg/kg    | < 0.90     | < 0.90     | < 0.90     | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5     | mg/kg    | < 0.50     | < 0.50     | < 0.50     | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6     | mg/kg    | 3.59       | 3.96       | 4.93       | 4.70       | 3.95       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4     | mg/kg    | < 1.40     | < 1.40     | 4.80       | < 1.40     | 5.18       |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4     | mg/kg    | < 1.40     | < 1.40     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10      | mg/kg    | < 10.00    | < 10.00    | 12.94      | < 10.00    | 12.53      |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10      | mg/kg    | 19.59      | 22.08      | 25.47      | 21.85      | 25.77      |
| PAHs                                  |             |         |          |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.04       | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.07       | 0.12       | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03    | mg/kg    | 0.04       | < 0.03     | 0.37       | 0.22       | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03    | mg/kg    | 0.03       | < 0.03     | 0.28       | 0.08       | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03    | mg/kg    | 0.06       | < 0.03     | 0.52       | 0.15       | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.17       | 0.04       | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.21       | 0.07       | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03    | mg/kg    | 0.07       | < 0.03     | 0.55       | 0.24       | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.04       | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03    | mg/kg    | 0.15       | < 0.03     | 1.1        | 1.0        | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03    | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.13       | 0.04       | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     | 0.03       | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03    | mg/kg    | 0.06       | < 0.03     | 0.64       | 0.77       | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03    | mg/kg    | 0.11       | < 0.03     | 1.1        | 0.66       | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1     | mg/kg    | 0.50       | < 0.10     | 5.2        | 3.4        | < 0.10     |
| Phenols                               |             |         |          |            |            |            |            |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3     | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Subcontracted Analysis                |             | ÷       |          |            |            |            |            |            |
| Benzene                               | \$*         | <2      | ug/kg    |            |            | <2         |            | <2         |
| Toluene                               | \$*         | <5      | ug/kg    |            |            | <5         |            | <5         |
| Ethylbenzene                          | \$*         | <2      | ug/kg    |            |            | <2         |            | <2         |
| p & m-xylene                          | \$*         | <2      | ug/kg    |            |            | <2         |            | <2         |
| o-xylene                              | \$*         | <2      | ug/kg    |            |            | <2         |            | <2         |
| МТВЕ                                  | \$*         | <5      | ug/kg    |            |            | <5         |            | <5         |
| ТАМЕ                                  | \$*         | < 5     | ug/kg    |            |            | < 5        |            | < 5        |



## **Summary of Chemical Analysis**

## **Leachate Samples**

|                            |                   | Lab No     |          | 2046867    | 2046868    |
|----------------------------|-------------------|------------|----------|------------|------------|
|                            |                   | .Sample ID |          | F-BH119    | F-BH133    |
|                            |                   |            | Depth    | 2.90       | 0.70       |
|                            |                   |            | Other ID |            |            |
|                            |                   | Sam        | ple Type | ES         | ES         |
|                            |                   | Sampl      | ing Date | 09/08/2022 | 09/08/2022 |
|                            |                   | Sampl      | ing Time | 1000       | 1400       |
| Test                       | Method            | LOD        | Units    |            |            |
| Preparation                |                   |            |          |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |            |          | Y          | Y          |
| Metals                     |                   |            |          |            |            |
| Arsenic, Dissolved         | <b>DETSC 2306</b> | 0.16       | ug/l     | 0.65       | 2.7        |
| Boron, Dissolved           | DETSC 2306*       | 12         | ug/l     | < 12       | 27         |
| Cadmium, Dissolved         | DETSC 2306        | 0.03       | ug/l     | 0.06       | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306*       | 1          | ug/l     | 6.6        | 1.8        |
| Chromium, Hexavalent       | DETSC 2203        | 0.007      | mg/l     | < 0.007    | < 0.007    |
| Copper, Dissolved          | DETSC 2306        | 0.4        | ug/l     | 15         | 4.2        |
| Iron, Dissolved            | DETSC 2306        | 5.5        | ug/l     | < 5.5      | 18         |
| Lead, Dissolved            | DETSC 2306        | 0.09       | ug/l     | 15         | 1.9        |
| Mercury, Dissolved         | DETSC 2306        | 0.01       | ug/l     | 0.04       | 0.07       |
| Nickel, Dissolved          | DETSC 2306        | 0.5        | ug/l     | < 0.5      | < 0.5      |
| Selenium, Dissolved        | DETSC 2306        | 0.25       | ug/l     | 0.92       | 0.50       |
| Zinc, Dissolved            | DETSC 2306        | 1.3        | ug/l     | 7.3        | 1.7        |
| Inorganics                 |                   |            |          |            |            |
| рН                         | <b>DETSC 2008</b> |            | рН       | 11.8       | 9.4        |
| Cyanide, Total Low Level   | DETSC 2131        | 0.1        | ug/l     | 0.6        | < 0.1      |
| Cyanide, Free Low Level    | DETSC 2131        | 0.1        | ug/l     | 0.8        | 0.2        |
| Thiocyanate                | DETSC 2130        | 20         | ug/l     | 26         | 39         |
| Total Hardness as CaCO3    | DETSC 2303        | 0.1        | mg/l     | 288        | 73.4       |
| Ammoniacal Nitrogen as NH4 | DETSC 2207        | 0.015      | mg/l     | 0.03       | 0.02       |
| Ammoniacal Nitrogen as NH3 | DETSC 2207        | 0.015      | mg/l     | 0.030      | 0.017      |
| Ammoniacal Nitrogen as N   | DETSC 2207        | 0.015      | mg/l     | 0.025      | < 0.015    |
| Nitrate as NO3             | DETSC 2055        | 0.1        | mg/l     | 1.3        | < 0.10     |
| Nitrite as NO2             | DETSC 2055        | 0.1        | mg/l     | 0.37       | 0.11       |
| Sulphate as SO4            | DETSC 2055        | 0.1        | mg/l     | 2.8        | 27         |
| Total Organic Carbon       | DETSC 2085        | 1          | mg/l     | 5.6        | 3.8        |
| PAHs                       |                   | 11         |          |            |            |
| Acenaphthene               | DETSC 3304        | 0.01       | ug/l     | < 0.01     | 0.03       |
| Acenaphthylene             | DETSC 3304        | 0.01       | ug/l     | < 0.01     | < 0.01     |
| Anthracene                 | DETSC 3304        | 0.01       | ug/l     | 0.02       | 0.06       |
| Benzo(a)anthracene         | DETSC 3304*       | 0.01       | ug/l     | 0.02       | 0.09       |
| Benzo(a)pyrene             | DETSC 3304        | 0.01       | ug/l     | < 0.01     | 0.08       |
| Benzo(b)fluoranthene       | DETSC 3304        | 0.01       | ug/l     | < 0.01     | 0.12       |
| Benzo(g,h,i)pervlene       | DETSC 3304        | 0.01       | ug/l     | < 0.01     | 0.07       |
| Benzo(k)fluoranthene       | DETSC 3304        | 0.01       | ug/l     | < 0.01     | 0.07       |
| Chrysene                   | DETSC 3304        | 0.01       | ug/l     | 0.03       | 0.13       |
| Dibenzo(a.h)anthracene     | DETSC 3304        | 0.01       | ug/l     | < 0.01     | < 0.01     |
| Fluoranthene               | DETSC 3304        | 0.01       | ug/l     | 0.05       | 0.31       |



## **Summary of Chemical Analysis**

## **Leachate Samples**

|                         |            |       | Lab No   | 2046867    | 2046868    |
|-------------------------|------------|-------|----------|------------|------------|
|                         |            | .Sa   | ample ID | F-BH119    | F-BH133    |
|                         |            |       | Depth    | 2.90       | 0.70       |
|                         |            |       | Other ID |            |            |
|                         |            | Sam   | ple Type | ES         | ES         |
|                         |            | Sampl | ing Date | 09/08/2022 | 09/08/2022 |
|                         |            | Sampl | ing Time | 1000       | 1400       |
| Test                    | Method     | LOD   | Units    |            |            |
| Fluorene                | DETSC 3304 | 0.01  | ug/l     | < 0.01     | 0.01       |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304 | 0.01  | ug/l     | < 0.01     | 0.05       |
| Naphthalene             | DETSC 3304 | 0.05  | ug/l     | < 0.05     | < 0.05     |
| Phenanthrene            | DETSC 3304 | 0.01  | ug/l     | 0.04       | 0.20       |
| Pyrene                  | DETSC 3304 | 0.01  | ug/l     | 0.05       | 0.28       |
| PAH Total               | DETSC 3304 | 0.2   | ug/l     | 0.21       | 1.5        |

# *I* DETS

## Summary of Asbestos Analysis Soil Samples

Our Ref 22-16049 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst     |
|---------|--------------|---------------|--------|----------|-------------|
| 2046862 | F-BH119 2.90 | SOIL          | NAD    | none     | Michael Kay |
| 2046864 | F-BH133 0.70 | SOIL          | NAD    | none     | Michael Kay |
| 2046865 | F-BH133 2.70 | SOIL          | NAD    | none     | Michael Kay |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Inappropriate

### Information in Support of the Analytical Results

*Our Ref* 22-16049 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |   | container for |
|---------|-----------------------|----------|----------------------------|---|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                         | tests         |
| 2046862 | F-BH119 2.90 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH |               |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2046863 | F-BH119 4.30 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH |               |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2046864 | F-BH133 0.70 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH |               |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2046865 | F-BH133 2.70 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH |               |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2046866 | F-BH133 5.00 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH |               |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2046867 | F-BH119 2.90 LEACHATE | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   |   |               |
| 2046868 | F-BH133 0.70 LEACHATE | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   |   |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### List of HWOL Acronyms and Operators

#### Det

| Aliphatic C5-C6      | HS 1D AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued:

24-Aug-22

Certificate Number 22-16051

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-16051
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 3 Soil samples, 1 Leachate sample.
  - Date Received 17-Aug-22
- Date Started 17-Aug-22
- Date Completed 24-Aug-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

legenood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk



## Summary of Chemical Analysis Soil Samples

|  |             |       | Lab No                    | 2046870    | 2046871    | 2046872    |
|--|-------------|-------|---------------------------|------------|------------|------------|
|  |             | .Sa   | ample ID                  | F-BH119    | F-BH133    | F-BH133    |
|  |             |       | Depth                     | 12.90      | 14.00      | 19.50      |
|  |             |       | Other ID                  |            |            |            |
|  |             | Sam   | ple Type                  | ES         | ES         | ES         |
|  |             | Sampl | ing Date                  | 10/08/2022 | 10/08/2022 | 10/08/2022 |
|  |             | Sampl | ing Time                  | 1530       | 1615       | 0910       |
| Test                                       | Method      | LOD   | Units                     | P          |            |            |
| Preparation                                |             |       |                           |            |            |            |
| Moisture Content                           | DETSC 1004  | 0.1   | %                         | 19         | 23         | 11         |
| Metals                                     |             |       |                           |            |            |            |
| Arsenic                                    | DETSC 2301# | 0.2   | mg/kg                     | 6.0        | 13         | 13         |
| Beryllium                                  | DETSC 2301# | 0.2   | mg/kg                     | 1.3        | 0.6        | 1.0        |
| Boron, Water Soluble                       | DETSC 2311# | 0.2   | mg/kg                     | 6.3        | 5.0        | 5.2        |
| Cadmium                                    | DETSC 2301# | 0.1   | mg/kg                     | < 0.1      | < 0.1      | < 0.1      |
| Chromium III                               | DETSC 2301* | 0.15  | mg/kg                     | 35         | 24         | 30         |
| Chromium, Hexavalent                       | DETSC 2204* | 1     | mg/kg                     | < 1.0      | < 1.0      | < 1.0      |
| Copper                                     | DETSC 2301# | 0.2   | mg/kg                     | 21         | 17         | 43         |
| Lead                                       | DETSC 2301# | 0.3   | mg/kg                     | 18         | 14         | 11         |
| Mercury                                    | DETSC 2325# | 0.05  | mg/kg                     | < 0.05     | < 0.05     | < 0.05     |
| Nickel                                     | DETSC 2301# | 1     | mg/kg                     | 35         | 23         | 45         |
| Selenium                                   | DETSC 2301# | 0.5   | mg/kg                     | < 0.5      | < 0.5      | < 0.5      |
| Vanadium                                   | DETSC 2301# | 0.8   | mg/kg                     | 44         | 38         | 50         |
| Zinc                                       | DETSC 2301# | 1     | mg/kg                     | 63         | 60         | 60         |
| Inorganics                                 | 1           | 1 1   |                           |            | 1          |            |
| pH   | DETSC 2008# |       | pН                        | 7.9        | 7.9        | 8.0        |
| Cyanide, Total                             | DETSC 2130# | 0.1   | mg/kg                     | < 0.1      | < 0.1      | < 0.1      |
| Cyanide, Free                              | DETSC 2130# | 0.1   | mg/kg                     | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                                | DETSC 2130# | 0.6   | mg/kg                     | 0.7        | < 0.6      | < 0.6      |
| Organic matter                             | DETSC 2002# | 0.1   | %                         | 2.2        | 2.7        | 2.3        |
| Nitrate as NO3                             | DETSC 2055  | 1     | mg/kg                     | < 1.0      | < 1.0      | < 1.0      |
| Sulphate Aqueous Extract as SO4            | DETSC 2076# | 10    | mg/l                      | 480        | 640        | 500        |
| Sulphide                                   | DETSC 2024* | 10    | mg/kg                     | 270        | 150        | 160        |
| Sulphur (free)                             | DFTSC 3049# | 0.75  | mg/kg                     | < 0.75     | < 0.75     | < 0.75     |
| Sulphur as S. Total                        | DETSC 2320  | 0.01  | <u>%</u>                  | 0.05       | 0.45       | 0.93       |
| Sulphate as SO4 Total                      | DETSC 2321# | 0.01  | %                         | 0.03       | 0.18       | 0.55       |
| Petroleum Hydrocarbons                     | 021002021   | 0.01  | ,,,                       | 0.10       | 0.10       | 0.10       |
| Aliphatic C5-C6: HS_1D_AI                  | DFTSC 3321* | 0.01  | mg/kg                     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AI                  | DETSC 3321* | 0.01  |                           | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AI                 | DETSC 3321* | 0.01  | mg/kg                     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL             | DETSC 3521# | 1 5   | mø/kø                     | < 1 50     | < 1.50     | < 1.50     |
| Aliphatic $>EC12-EC16$ ; EH 2D Al          | DETSC 3521# | 1.0   | mg/kg                     | < 1.20     | < 1.20     | < 1.20     |
| Aliphatic >EC16-EC21: EH_2D_AL             | DETSC 3521# | 1.2   | mg/kg                     | < 1.20     | < 1.20     | < 1.20     |
| Aliphatic $\Sigma EC21 = EC21: ET1_2D_1/E$ | DETSC 3521# | 3.4   | ma/ka                     | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic > $EC21 EC33 ET_2D_AL$           | DETSC 3521# | 3.4   | mg/kg                     | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic (5-(40: EH 20+HS 10 Al           | DETSC 2521* | 10    | <u>6/ /6/ 8</u><br>ma/ka  | 12 5/      | 1/ 22      | 12 /6      |
| Aromatic C5-C7: HS 1D AR                   | DETSC 2221* | 0.01  | <u>8^י /8ייי</u><br>ma/ka | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS 1D AR                   | DETSC 2221* | 0.01  | <u>ma/ka</u>              | < 0.01     | < 0.01     | < 0.01     |
|  |             | 0.01  | 1116/15                   | < 0.01     | < 0.01     | < 0.01     |



## Summary of Chemical Analysis Soil Samples

|                                       |             | Lab No     |           | 2046870    | 2046871    | 2046872    |
|---------------------------------------|-------------|------------|-----------|------------|------------|------------|
|                                       |             | .Sample ID |           | F-BH119    | F-BH133    | F-BH133    |
|                                       |             |            | Depth     | 12.90      | 14.00      | 19.50      |
|                                       |             |            | Other ID  |            |            |            |
|                                       |             | Sam        | ple Type  | ES         | ES         | ES         |
|                                       |             | Samp       | ling Date | 10/08/2022 | 10/08/2022 | 10/08/2022 |
|                                       |             | Sampl      | ing Time  | 1530       | 1615       | 0910       |
| Test                                  | Method      | LOD        | Units     |            | 1          |            |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01       | mg/kg     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9        | mg/kg     | < 0.90     | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5        | mg/kg     | < 0.50     | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6        | mg/kg     | 4.04       | 4.23       | 3.71       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4        | mg/kg     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4        | mg/kg     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10         | mg/kg     | < 10.00    | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10         | mg/kg     | 22.78      | 24.04      | 20.95      |
| PAHs                                  | 1           |            |           |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03       | mg/kg     | < 0.03     | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1        | mg/kg     | < 0.10     | < 0.10     | < 0.10     |
| Phenols                               | 1           |            |           |            |            |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3        | mg/kg     | < 0.3      | < 0.3      | < 0.3      |
| Subcontracted Analysis                | 1.          |            |           |            |            |            |
| Benzene                               | \$*         | <2         | ug/kg     |            | <2         |            |
| Toluene                               | \$*         | <5         | ug/kg     |            | <5         |            |
| Ethylbenzene                          | \$*         | <2         | ug/kg     |            | <2         |            |
| p & m-xylene                          | \$*         | <2         | ug/kg     |            | <2         |            |
| o-xylene                              | \$*         | <2         | ug/kg     |            | <2         |            |
| МТВЕ                                  | \$*         | <5         | ug/kg     |            | <5         |            |
| TAME                                  | \$*         | < 5        | ug/kg     |            | < 5        |            |



## **Summary of Chemical Analysis**

## **Leachate Samples**

|                            |                   |        | Lab No   | 2046873    |
|----------------------------|-------------------|--------|----------|------------|
|                            |                   | .Sa    | mple ID  | F-BH133    |
|                            |                   |        | Depth    | 19.50      |
|                            |                   | (      | Other ID |            |
|                            |                   | Sam    | ple Type | ES         |
|                            |                   | Sampli | ing Date | 10/08/2022 |
|                            |                   | Sampli | ng Time  | 0910       |
| Test                       | Method            | LOD    | Units    |            |
| Preparation                |                   |        |          |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |        |          | Y          |
| Metals                     |                   |        |          |            |
| Arsenic, Dissolved         | DETSC 2306        | 0.16   | ug/l     | 0.41       |
| Boron, Dissolved           | DETSC 2306*       | 12     | ug/l     | 71         |
| Cadmium, Dissolved         | DETSC 2306        | 0.03   | ug/l     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306*       | 1      | ug/l     | < 1.0      |
| Chromium, Hexavalent       | DETSC 2203        | 0.007  | mg/l     | < 0.007    |
| Copper, Dissolved          | DETSC 2306        | 0.4    | ug/l     | 2.2        |
| Iron, Dissolved            | DETSC 2306        | 5.5    | ug/l     | 31         |
| Lead, Dissolved            | DETSC 2306        | 0.09   | ug/l     | 0.51       |
| Mercury, Dissolved         | DETSC 2306        | 0.01   | ug/l     | < 0.01     |
| Nickel, Dissolved          | DETSC 2306        | 0.5    | ug/l     | < 0.5      |
| Selenium, Dissolved        | DETSC 2306        | 0.25   | ug/l     | 3.9        |
| Zinc, Dissolved            | DETSC 2306        | 1.3    | ug/l     | 1.4        |
| Inorganics                 |                   |        |          |            |
| рН                         | DETSC 2008        |        | рН       | 7.6        |
| Cyanide, Total Low Level   | DETSC 2131        | 0.1    | ug/l     | 0.6        |
| Cyanide, Free Low Level    | DETSC 2131        | 0.1    | ug/l     | 3.8        |
| Thiocyanate                | <b>DETSC 2130</b> | 20     | ug/l     | < 20       |
| Total Hardness as CaCO3    | DETSC 2303        | 0.1    | mg/l     | 45.6       |
| Ammoniacal Nitrogen as NH4 | DETSC 2207        | 0.015  | mg/l     | 0.04       |
| Ammoniacal Nitrogen as NH3 | DETSC 2207        | 0.015  | mg/l     | 0.040      |
| Ammoniacal Nitrogen as N   | DETSC 2207        | 0.015  | mg/l     | 0.033      |
| Nitrate as NO3             | DETSC 2055        | 0.1    | mg/l     | 0.12       |
| Nitrite as NO2             | DETSC 2055        | 0.1    | mg/l     | 2.6        |
| Sulphate as SO4            | DETSC 2055        | 0.1    | mg/l     | 93         |
| Total Organic Carbon       | DETSC 2085        | 1      | mg/l     | 1.9        |
| PAHs                       |                   | r      |          |            |
| Acenaphthene               | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Acenaphthylene             | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Anthracene                 | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Benzo(a)anthracene         | DETSC 3304*       | 0.01   | ug/l     | < 0.01     |
| Benzo(a)pyrene             | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Benzo(b)fluoranthene       | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Benzo(g,h,i)perylene       | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Benzo(k)fluoranthene       | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Chrysene                   | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Dibenzo(a,h)anthracene     | DETSC 3304        | 0.01   | ug/l     | < 0.01     |
| Fluoranthene               | DETSC 3304        | 0.01   | ug/l     | < 0.01     |



## **Summary of Chemical Analysis**

## **Leachate Samples**

*Our Ref* 22-16051 *Client Ref* 60678042 *Contract Title* NZT FEED GI

|                         |            |       | Lab No    | 2046873    |
|-------------------------|------------|-------|-----------|------------|
|                         |            | .Sa   | ample ID  | F-BH133    |
|                         |            |       | Depth     | 19.50      |
|                         |            |       | Other ID  |            |
|                         |            | Sam   | ple Type  | ES         |
|                         |            | Samp  | ling Date | 10/08/2022 |
|                         |            | Sampl | ing Time  | 0910       |
| Test                    | Method     | LOD   | Units     |            |
| Fluorene                | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Naphthalene             | DETSC 3304 | 0.05  | ug/l      | < 0.05     |
| Phenanthrene            | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| Pyrene                  | DETSC 3304 | 0.01  | ug/l      | < 0.01     |
| PAH Total               | DETSC 3304 | 0.2   | ug/l      | < 0.20     |

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### Information in Support of the Analytical Results

*Our Ref* 22-16051 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                        | Date     |                          | exceeded for | container for |
|---------|------------------------|----------|--------------------------|--------------|---------------|
| Lab No  | Sample ID              | Sampled  | Containers Received      | tests        | tests         |
| 2046870 | F-BH119 12.90 SOIL     | 10/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2046871 | F-BH133 14.00 SOIL     | 10/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2046872 | F-BH133 19.50 SOIL     | 10/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2046873 | F-BH133 19.50 LEACHATE | 10/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
|         |                        |          |                          |              |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | <i>i i</i>  |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

List of HWOL Acronyms and Operators

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued: 08-Sep-22

Certificate Number 22-17018 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-17018
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 4 Soil samples, 1 Leachate sample.
  - Date Received 30-Aug-22
  - Date Started 30-Aug-22
- Date Completed 08-Sep-22
- *Test Procedures* Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lymood

Kirk Bridgewood General Manager



# *i* DETS

## Summary of Chemical Analysis Soil Samples

|                                  |             |          | Lab No                      | 2051747       | 2051748                           | 2051749      | 2051750    |
|----------------------------------|-------------|----------|-----------------------------|---------------|-----------------------------------|--------------|------------|
|                                  |             | .Sa      | ample ID                    | F-BH109       | F-BH109                           | F-BH109      | F-BH104    |
|                                  |             |          | Depth                       | 2.20          | 3.20                              | 5.20         | 21.80      |
|                                  |             |          | Other ID                    |               |                                   |              |            |
|                                  |             | Sam      | ple Type                    | ES            | ES                                | ES           | ES         |
|                                  |             | Sampl    | ing Date                    | 18/08/2022    | 19/08/2022                        | 19/08/2022   | 18/08/2022 |
|                                  |             | Sampl    | ing Time                    | n/s           | n/s                               | n/s          | n/s        |
| Test                             | Method      | LOD      | Units                       |               |                                   |              |            |
| Preparation                      |             |          | 0/                          |               | 10                                | 20           |            |
| Moisture Content                 | DETSC 1004  | 0.1      | %                           | 6.0           | 10                                | 20           | 11         |
| Metais                           | DETCC 2201# | 0.2      |                             | ГС            |                                   | гэ           | 40         |
| Arsenic                          | DETSC 2301# | 0.2      | mg/kg                       | 5.0           | 5.5                               | 5.2          | 42         |
| Beryillum                        | DETSC 2201# | 0.2      | mg/kg                       | 2.0           | 5.5<br>1 Q                        | < U.Z        | U.3        |
| Boron, water soluble             | DEISC 2311# | 0.2      | mg/kg                       | <b>3.</b> 5   | 4.0                               | 0.7          | 5.2        |
|                                  | DEISC 2301# | 0.1      | mg/kg                       | × U. ۲<br>6 ۹ | <ul><li>∇.⊥</li><li>7.3</li></ul> | < U.1<br>2 2 | 1.0        |
| Chromium Hovavalent              | DE13C 2301  | 0.15     | mg/kg                       | - 1 0         | /.5                               | 5.z          | -10        |
| Conner                           | DE13C 2204  | <u> </u> | mg/kg                       | × 1.0         | × 1.0                             | × 1.0<br>2 1 | 22         |
| Lood                             | DE13C 2301# | 0.2      | mg/kg                       | 4.0<br>0 8    | 4.0                               | 25           | 26         |
| Marcury                          | DETSC 2301# | 0.5      | mg/kg                       | < 0.05        | < 0.05                            | < 0.05       | 0.07       |
| Nickol                           | DETSC 2325# | 0.05     | mg/kg                       | 2 3           | 1.6                               | 3 1          | 33         |
| Calanium                         | DETSC 2301# | 0.5      | mg/kg                       | 1 4           | 1.0                               | 0.5          | < 0.5      |
| Vanadium                         | DETSC 2301# | 0.3      | mø/kg                       | 31            | 31                                | 10           | 18         |
| Zinc                             | DETSC 2301# | 1        | mg/kg                       | 3.7           | 13                                | 21           | 46         |
| Inorganics                       | DE100 2002  |          | 0. /0                       |               |                                   |              |            |
| nH                               | DFTSC 2008# |          | рН                          | 9.8           | 9.6                               | 9.1          | 9.1        |
| Cvanide Total                    | DFTSC 2130# | 0.1      | mg/kg                       | 0.3           | 0.2                               | < 0.1        | < 0.1      |
| Cvanide Free                     | DFTSC 2130# | 0.1      | mg/kg                       | < 0.1         | < 0.1                             | < 0.1        | < 0.1      |
| Thioryanate                      | DETSC 2130# | 0.6      | mø/kø                       | 2.0           | 0.8                               | < 0.6        | < 0.6      |
| Organic matter                   | DETSC 2002# | 0.0      | <u>פיי ופייי</u><br>%       | 0.6           | 0.3                               | 0.0          | 2 1        |
| Nitrate as NO3                   | DETSC 2055  | 1        | ma/ka                       | < 1.0         | 2.4                               | < 1.0        | < 1.0      |
| Sulphate Aqueous Extract as SOA  | DETSC 2035  | -<br>10  | <del>ة (1</del> 11)<br>ma/l | 1900          | 1800                              | 200          | 970        |
| Sulphide Aqueous Extract as 304  |             | 10       |                             | 2700          | 2200                              | 110          | 67         |
|                                  | DE13C 2024  | 0.75     | 111g/ Ng                    | 3700          | 2 0 7E                            | 2.1          | 1.4        |
|                                  | DETSC 3049# | 0.75     | mg/ kg                      | 210           | < 0.75                            | 3.1          | 1.4        |
| Sulphur as S, Total              | DEISC 2320  | 0.01     | 70<br>0/                    | 0.95          | 0.71                              | 0.05         | 2.1        |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01     | %                           | 2.5           | 3.0                               | 0.11         | 0.27       |
|                                  |             | 2.01     | - /1                        | : 0.01        | : 0.01                            | : 0.04       | : 0.01     |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01     | mg/kg                       | < 0.01        | < 0.01                            | < 0.01       | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL        | DETSC 3321* | 0.01     | mg/kg                       | < 0.01        | < 0.01                            | < 0.01       | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL       | DETSC 3321* | 0.01     | mg/kg                       | < 0.01        | < 0.01                            | < 0.01       | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL   | DETSC 3521# | 1.5      | mg/kg                       | 5.84          | 5.95                              | 6.21         | 4.69       |
| Aliphatic >EC12-EC16: EH_2D_AL   | DETSC 3521# | 1.2      | mg/kg                       | 1.61          | 2.25                              | 4.13         | 1.61       |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5      | mg/kg                       | < 1.50        | < 1.50                            | 2.17         | < 1.50     |
| Aliphatic >EC21-EC35: EH_2D_AL   | DETSC 3521# | 3.4      | mg/kg                       | < 3.40        | < 3.40                            | < 3.40       | < 3.40     |
| Aliphatic >EC35-EC40: EH_2D_AL   | DETSC 3521# | 3.4      | mg/kg                       | < 3.40        | < 3.40                            | < 3.40       | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS_1D_AL | DETSC 3521* | 10       | mg/kg                       | 16.37         | 17.46                             | 21.00        | 15.66      |
| Aromatic C5-C7: HS_1D_AR         | DETSC 3321* | 0.01     | mg/kg                       | < 0.01        | < 0.01                            | < 0.01       | < 0.01     |
| Aromatic C7-C8: HS_1D_AR         | DETSC 3321* | 0.01     | mg/kg                       | < 0.01        | < 0.01                            | < 0.01       | < 0.01     |
| Aromatic C8-C10: HS_1D_AR        | DETSC 3321* | 0.01     | mg/kg                       | < 0.01        | < 0.01                            | < 0.01       | < 0.01     |
| Aromatic >EC10-EC12: EH 2D AR    | DETSC 3521# | 0.9      | mg/kg                       | < 0.90        | < 0.90                            | < 0.90       | < 0.90     |

# *i* DETS

## Summary of Chemical Analysis Soil Samples

|                                       |             |       | Lab No   | 2051747    | 2051748    | 2051749        | 2051750    |
|---------------------------------------|-------------|-------|----------|------------|------------|----------------|------------|
|                                       |             | .Sa   | ample ID | F-BH109    | F-BH109    | F-BH109        | F-BH104    |
|                                       |             |       | Depth    | 2.20       | 3.20       | 5.20           | 21.80      |
|                                       |             |       | Other ID |            |            |                |            |
|                                       |             | Sam   | ple Type | ES         | ES         | ES             | ES         |
|                                       |             | Sampl | ing Date | 18/08/2022 | 19/08/2022 | 19/08/2022     | 18/08/2022 |
| Tost                                  | Mathad      | Sampi | ing Lime | n/s        | n/s        | n/s            | n/s        |
| Aromatic >EC12_EC16; EH 2D AR         |             | 0.5   | ma/ka    | < 0.50     | < 0.50     | < 0.50         | < 0.50     |
| Aromatic >EC12 EC10: EII_2D_AR        | DETSC 2521# | 0.5   | mg/kg    | 1 21       | 1 79       | < 0.30<br>E 0E | 1 52       |
| Aromatic >EC21 EC25: EH_2D_AR         | DETSC 2521# | 0.0   | mg/kg    | 4.31       | 4.70       | 2.05           | 4.55       |
| Aromatic >EC35_EC40: EH_2D_AR         | DETSC 2521# | 1.4   | mg/kg    | < 1.40     | < 1.40     | < 1.40         | < 1.40     |
| Aromatic (5-C40: EH 2D+HS 1D AR       | DETSC 2521* | 1.4   | mg/kg    | < 10.00    | < 10.00    | 10.21          | < 10.00    |
| TPH Ali/Aro CE C40: EH 2D+HS 1D Total | DETSC 2521* | 10    | mg/kg    | 25.21      | 26.05      | 21 21          | 21 0.00    |
| PAHs                                  | DLISC 3321  | 10    | 116/16   | 23.21      | 20.55      | 51.51          | 24.34      |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.05       | < 0.03         | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.03       | < 0.03         | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.07       | < 0.03         | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.03       | < 0.03         | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | 0.08       | < 0.03         | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.14       | < 0.03         | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03         | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.05       | < 0.03         | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.12       | < 0.03         | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     | 0.50       | < 0.10         | < 0.10     |
| Phenols                               |             |       |          |            |            |                |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3   | mg/kg    | 0.4        | 0.4        | < 0.3          | 0.6        |
| Subcontracted Analysis                |             |       |          |            |            |                |            |
| Benzene                               | \$*         | <2    | ug/kg    | <2         |            | <2             |            |
| Toluene                               | \$*         | <5    | ug/kg    | <5         |            | <5             |            |
| Ethylbenzene                          | \$*         | <2    | ug/kg    | <2         |            | <2             |            |
| p & m-xylene                          | \$*         | <2    | ug/kg    | <2         |            | <2             |            |
| o-xylene                              | \$*         | <2    | ug/kg    | <2         |            | <2             |            |
| МТВЕ                                  | \$*         | <5    | ug/kg    | <5         |            | <5             |            |
| ТАМЕ                                  | \$*         | < 5   | ug/kg    | < 5        |            | < 5            |            |



## Summary of Chemical Analysis Leachate Samples

|                            |                   |        | Lab No      | 2051751    |
|----------------------------|-------------------|--------|-------------|------------|
|                            |                   | .Sa    | mple ID     | F-BH109    |
|                            |                   |        | Depth       | 2.20       |
|                            |                   | C      | Other ID    |            |
|                            |                   | Sam    | ole Type    | ES         |
|                            |                   | Sampli | ng Date     | 18/08/2022 |
|                            |                   | Sampli | ng Time     | n/s        |
| Test                       | Method            | LOD    | Units       |            |
| Preparation                |                   |        |             |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |        |             | Y          |
| Metals                     |                   |        |             |            |
| Arsenic, Dissolved         | DETSC 2306        | 0.16   | ug/l        | < 0.16     |
| Boron, Dissolved           | DETSC 2306*       | 12     | ug/l        | < 12       |
| Cadmium, Dissolved         | DETSC 2306        | 0.03   | ug/l        | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306*       | 1      | ug/l        | < 1.0      |
| Chromium, Hexavalent       | DETSC 2203        | 0.007  | mg/l        | < 0.007    |
| Copper, Dissolved          | DETSC 2306        | 0.4    | ug/l        | < 0.4      |
| Iron, Dissolved            | DETSC 2306        | 5.5    | ug/l        | < 5.5      |
| Lead, Dissolved            | DETSC 2306        | 0.09   | ug/l        | < 0.09     |
| Mercury, Dissolved         | DETSC 2306        | 0.01   | ug/l        | < 0.01     |
| Nickel, Dissolved          | DETSC 2306        | 0.5    | ug/l        | < 0.5      |
| Selenium, Dissolved        | <b>DETSC 2306</b> | 0.25   | ug/l        | < 0.25     |
| Zinc, Dissolved            | <b>DETSC 2306</b> | 1.3    | ug/l        | < 1.3      |
| Inorganics                 |                   |        |             |            |
| рН                         | <b>DETSC 2008</b> |        | рН          | 9.5        |
| Cyanide, Total Low Level   | DETSC 2131        | 0.1    | ug/l        | < 0.1      |
| Cyanide, Free Low Level    | DETSC 2131        | 0.1    | ug/l        | 0.4        |
| Thiocyanate                | DETSC 2130        | 20     | ug/l        | 270        |
| Total Hardness as CaCO3    | DETSC 2303        | 0.1    | mg/l        | < 0.10     |
| Ammoniacal Nitrogen as NH4 | DETSC 2207        | 0.015  | mg/l        | < 0.02     |
| Ammoniacal Nitrogen as NH3 | DETSC 2207        | 0.015  | mg/l        | < 0.015    |
| Ammoniacal Nitrogen as N   | DETSC 2207        | 0.015  | mg/l        | < 0.015    |
| Nitrate as NO3             | DETSC 2055        | 0.1    | mg/l        | 0.66       |
| Nitrite as NO2             | DETSC 2055        | 0.1    | mg/l        | < 0.10     |
| Sulphate as SO4            | DETSC 2055        | 0.1    | mg/l        | 730        |
| Total Organic Carbon       | DETSC 2085        | 1      | mg/l        | 3.8        |
| PAHs                       | 21.001000         | _      |             |            |
| Acenaphthene               | DETSC 3304        | 0.01   | ug/l        | < 0.01     |
| Acenaphthylene             | DETSC 3304        | 0.01   | ug/l        | < 0.01     |
| Anthracene                 | DETSC 3304        | 0.01   | ug/l        | < 0.01     |
| Benzo(a)anthracene         | DETSC 3304*       | 0.01   | رون<br>ارون | < 0.01     |
| Benzo(a)pyrepe             | DETSC 3304        | 0.01   | ug/l        | < 0.01     |
| Benzo(b)fluoranthene       | DETSC 2204        | 0.01   | ug/1        | < 0.01     |
|                            | DETSC 3304        | 0.01   | ug/1        | < 0.01     |
| Benzo(k)fluoranthana       | DETSC 3304        | 0.01   | ug/i        | < 0.01     |
| Benzo(k)nuorantnene        | DETSC 3304        | 0.01   | ug/i        | < 0.01     |
| Chrysene                   | DEISC 3304        | 0.01   | ug/l        | < 0.01     |
| Dibenzo(a,h)anthracene     | DETSC 3304        | 0.01   | ug/l        | < 0.01     |
| Fluoranthene               | DETSC 3304        | 0.01   | ug/l        | 0.01       |
| Fluorene                   | DETSC 3304        | 0.01   | ug/l        | < 0.01     |
| Indeno(1,2,3-c,d)pyrene    | DETSC 3304        | 0.01   | ug/l        | < 0.01     |



## Summary of Chemical Analysis

## Leachate Samples

|              |            |       | Lab No   | 2051751    |
|--------------|------------|-------|----------|------------|
|              |            | .Sa   | ample ID | F-BH109    |
|              |            |       | Depth    | 2.20       |
|              |            |       | Other ID |            |
|              |            | Sam   | ple Type | ES         |
|              |            | Samp  | ing Date | 18/08/2022 |
|              |            | Sampl | ing Time | n/s        |
| Test         | Method     | LOD   | Units    |            |
| Naphthalene  | DETSC 3304 | 0.05  | ug/l     | < 0.05     |
| Phenanthrene | DETSC 3304 | 0.01  | ug/l     | < 0.01     |
| Pyrene       | DETSC 3304 | 0.01  | ug/l     | < 0.01     |
| PAH Total    | DETSC 3304 | 0.2   | ug/l     | < 0.20     |

# *i* DETS

## Summary of Asbestos Analysis Soil Samples

Our Ref 22-17018 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst         |
|---------|--------------|---------------|--------|----------|-----------------|
| 2051747 | F-BH109 2.20 | SOIL          | NAD    | none     | Darryl Fletcher |
| 2051748 | F-BH109 3.20 | SOIL          | NAD    | none     | Darryl Fletcher |
|         |              |               |        |          |                 |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



inannronriate

### Information in Support of the Analytical Results

Our Ref 22-17018 Client Ref 60678042 Contract NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |  | container for |
|---------|-----------------------|----------|----------------------------|--|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests  | tests         |
| 2051747 | F-BH109 2.20 SOIL     | 18/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH                            | l             |
| 2051748 | F-BH109 3.20 SOIL     | 19/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH<br>+ Conductivity (7 days) |               |
| 2051749 | F-BH109 5.20 SOIL     | 19/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH<br>+ Conductivity (7 days) |               |
| 2051750 | F-BH104 21.80 SOIL    | 18/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH<br>+ Conductivity (7 days) | 1             |
| 2051751 | F-BH109 2.20 LEACHATE | 18/08/22 | GJ 250ml, GJ 60ml, PT 1L   |  |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

#### End of Report



Issued: 09-Sep-22

Certificate Number 22-17019 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-17019
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - *Description* 5 Soil samples, 1 Leachate sample.
  - Date Received 30-Aug-22
  - Date Started 30-Aug-22
- Date Completed 09-Sep-22
- *Test Procedures* Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lymood

Kirk Bridgewood General Manager


# Summary of Chemical Analysis Soil Samples

|                                  |             |          | Lab No   | 2051752    | 2051753    | 2051755     | 2051756      |
|----------------------------------|-------------|----------|----------|------------|------------|-------------|--------------|
|                                  |             | .Sa      | ample ID | F-BH104    | F-BH104    | F-BH104     | F-BH104      |
|                                  |             |          | Depth    | 3.00       | 4.00       | 6.00        | 15.75        |
|                                  |             | (        | Other ID |            |            |             |              |
|                                  |             | Sam      | ple Type | ES         | ES         | ES          | ES           |
|                                  |             | Sampl    | ing Date | 17/08/2022 | 17/08/2022 | 17/08/2022  | 18/08/2022   |
|                                  |             | Sampli   | ing Time | n/s        | n/s        | n/s         | n/s          |
| Test                             | Method      | LOD      | Units    |            |            |             |              |
| Preparation                      |             |          |          |            |            |             |              |
| Moisture Content                 | DETSC 1004  | 0.1      | %        | 8.5        | 6.1        | 21          | 19           |
| Metals                           | T           | <u> </u> | 0        |            |            |             |              |
| Arsenic                          | DETSC 2301# | 0.2      | mg/kg    | 7.5        | 29         | 6.3         | 8.4          |
| Beryllium                        | DETSC 2301# | 0.2      | mg/kg    | 0.3        | 0.9        | < 0.2       | 1.3          |
| Boron, Water Soluble             | DETSC 2311# | 0.2      | mg/kg    | 1.3        | 0.7        | 0.3         | b.4          |
|                                  | DETSC 2301# | 0.1      | mg/kg    | < 0.1      | 0.2        | < U.1       | < U.1        |
| Chromium III                     | DETSC 2301* | 0.15     | mg/kg    | 35         | 300        | <b>5.</b> 4 | 45           |
| Chromium, Hexavaient             | DETSC 2204* | 1        | mg/kg    | < 1.0      | < 1.U      | < 1.U       | < 1.U        |
| Copper                           | DETSC 2301# | 0.2      | mg/kg    | 20         | 34         | 3.ō         | 27<br>10     |
| Lead                             | DEISC 2301# | 0.3      | mg/kg    | 13         | Z1         | 0.2         | 10<br>- 0 05 |
| Mercury                          | DEISC 2325# | 0.05     | mg/kg    | < 0.05     | < 0.05     | < 0.05      | < 0.05       |
| NICKEI                           | DEISC 2301# |          | mg/kg    | 10         | 12         | 2.J         | 40           |
| Vanadium                         | DETSC 2301# | 0.5      | mg/kg    | 130        | 1/00       | 1/          | < 0.5<br>7/  |
|                                  | DETSC 2301# | 0.0      | mg/kg    | 20         | 78         | 12          | /+           |
|                                  | DE13C 2301# | Т        | IIIg/ Ng | 23         | 70         | 12          |              |
|                                  | DETCC 2008# |          | nH       | 10.3       | 10.6       | 10.0        | 9.1          |
| pri<br>Guanida, Tatal            | DETSC 2120# | 0.1      | ma/ka    | 10.5       | - 0.0      | < 0.1       | 201          |
| Cyanida, Froo                    | DETSC 2120# | 0.1      | mg/kg    | < 0.2      | < 0.1      | < 0.1       | < 0.1        |
|                                  | DEISC 2130# | 0.1      | mg/kg    | < 0.1      | < 0.1      | < 0.1       | < 0.1        |
|                                  | DETSC 2130# | 0.0      | тіg/кg   | < 0.0      | < 0.0      | < 0.0       | < U.U        |
| Organic matter                   | DEISC 2002# | 0.1      | 70<br>   | 0.7        | 0.0        | 0.2         | 1.5          |
| Nitrate as NU3                   | DEISC 2055  | 1        | mg/кg    | 2.7        | b.2        | < 1.0       | 5.5          |
| Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10       | mg/I     | 150        | 160        | 82          | 350          |
| Sulphide                         | DETSC 2024* | 10       | mg/kg    | 70         | 650        | 51          | 110          |
| Sulphur (free)                   | DETSC 3049# | 0.75     | mg/kg    | < 0.75     | 1.5        | < 0.75      | 1.7          |
| Sulphur as S, Total              | DETSC 2320  | 0.01     | %        | 0.13       | 0.21       | 0.03        | 0.08         |
| Sulphate as SO4, Total           | DETSC 2321# | 0.01     | %        | 0.28       | 0.24       | 0.09        | 0.15         |
| Petroleum Hydrocarbons           |             |          |          |            |            |             |              |
| Aliphatic C5-C6: HS_1D_AL        | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
| Aliphatic C6-C8: HS_1D_AL        | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
| Aliphatic C8-C10: HS_1D_AL       | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
| Aliphatic >EC10-EC12: EH_2D_AL   | DETSC 3521# | 1.5      | mg/kg    | 5.01       | 4.88       | 5.37        | 5.26         |
| Aliphatic >EC12-EC16: EH_2D_AL   | DETSC 3521# | 1.2      | mg/kg    | 1.99       | 2.29       | 3.26        | 3.25         |
| Aliphatic >EC16-EC21: EH_2D_AL   | DETSC 3521# | 1.5      | mg/kg    | < 1.50     | < 1.50     | 1.95        | < 1.50       |
| Aliphatic >EC21-EC35: EH_2D_AL   | DETSC 3521# | 3.4      | mg/kg    | < 3.40     | < 3.40     | < 3.40      | < 3.40       |
| Aliphatic >EC35-EC40: EH 2D AL   | DETSC 3521# | 3.4      | mg/kg    | < 3.40     | < 3.40     | < 3.40      | < 3.40       |
| Aliphatic C5-C40: EH 2D+HS 1D AL | DETSC 3521* | 10       | mg/kg    | 16.11      | 16.04      | 19.24       | 18.85        |
| Aromatic C5-C7: HS 1D AR         | DFTSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
| Aromatic C7-C8: HS_1D_AR         | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
| Aromatic C8-C10: HS_1D_AR        | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
| Aromatic SEC10-EC12: EH 2D AR    | DETSC 3521# | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01      | < 0.01       |
|                                  |             | 0.5      | 1116/16  | < 0.50     | < 0.50     | < 0.50      | < 0.50       |

# Summary of Chemical Analysis Soil Samples

|                                       |             |       | Lah Na   | 2054752           | 2054752           | 2054755           | 2054750           |
|---------------------------------------|-------------|-------|----------|-------------------|-------------------|-------------------|-------------------|
|                                       |             |       |          | 2051752           | 2051/53           | 2051755           | 2051756           |
|                                       |             | .58   |          | F-BH104           | F-BH104           | F-BH104           | F-BH104           |
|                                       |             |       | Other ID | 3.00              | 4.00              | 6.00              | 15.75             |
|                                       |             | Sam   |          | EC                | EC                | EC                | EC                |
|                                       |             | Samn  | ing Date | E3                | L2                | L3                | E3                |
|                                       |             | Sampl | ing Time | 17/00/2022<br>n/s | 17/00/2022<br>n/s | 17/00/2022<br>n/s | 10/00/2022<br>n/s |
| Test                                  | Method      |       | Units    | 175               | 175               | 175               | 175               |
| Aromatic >EC12-EC16: EH_2D_AR         | DFTSC 3521# | 0.5   | mg/kg    | 0.97              | < 0.50            | < 0.50            | < 0.50            |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | 52.62             | 4.56              | 4.93              | 4.85              |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1 4   | mg/kg    | 414 5             | 3 63              | < 1.40            | < 1.40            |
| Aromatic > $EC22 = EC03 = EH_2D_AR$   | DETSC 3521* | 1 4   | mg/kg    | 124.3             | < 1.40            | < 1.40            | < 1.40            |
| Aromatic C5-C40: EH 2D+HS 1D AR       | DETSC 3521* | 10    | mg/kg    | 593.4             | 11 20             | 10.29             | 10.09             |
| TPH Ali/Aro C5-C40: EH 2D+HS 1D Total | DETSC 3521* | 10    | mg/kg    | 609 5             | 27.24             | 29.52             | 28.94             |
| PAHs                                  | DE13C 3321  | 10    | 0''\8''' | 005.5             | 27.24             | 23.52             | 20.34             |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03            | < 0.03            | < 0.03            | < 0.03            |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03            | < 0.03            | < 0.03            | < 0.03            |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03            | < 0.03            | < 0.03            | < 0.03            |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | 0.03              | 0.07              | < 0.03            | < 0.03            |
| Benzo(a)pyrepe                        | DETSC 3303# | 0.03  | mg/kg    | 0.03              | 0.07              | < 0.03            | < 0.03            |
| Benzo(h)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | 0.04              | 0.05              | < 0.03            | < 0.03            |
| Benzo(g h i)pervlene                  | DETSC 2202# | 0.03  | mg/kg    | < 0.03            | 0.11              | < 0.03            | < 0.03            |
| Benzo(k)fluoranthene                  | DETSC 2202# | 0.03  | mg/kg    | < 0.03            | 0.05              | < 0.03            | < 0.03            |
| Chrysene                              | DETSC 2202  | 0.03  | mg/kg    | 0.03              | 0.05              | < 0.03            | < 0.03            |
| Dibonzo(a h)anthracono                | DETSC 3303  | 0.03  | mg/kg    | < 0.02            | < 0.02            | < 0.03            | < 0.03            |
| Eluoranthono                          | DETSC 3303# | 0.03  | mg/kg    | 0.05              | 0.05              | < 0.03            | < 0.03            |
| Eluoropo                              | DETSC 3303# | 0.03  | mg/kg    | 0.00              | < 0.02            | < 0.03            | < 0.03            |
| Indono(1,2,2,c,d)pyropo               | DETSC 3303  | 0.03  | mg/kg    | < 0.03            | 0.03              | < 0.03            | < 0.03            |
| Nanhthalana                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03            | 0.04              | < 0.03            | < 0.03            |
| Department                            | DETSC 3303# | 0.05  | mg/kg    | < 0.05            | 0.04              | < 0.03            | < 0.03            |
| Prienancinene                         | DETSC 3303# | 0.05  | mg/kg    | 0.05              | 0.15              | < 0.03            | < 0.03            |
|                                       | DETSC 3303# | 0.03  | mg/kg    | 0.12              | 0.17              | < 0.03            | < 0.03            |
| PAR - USEPA 18, TOTAL                 | DETSC 3303  | 0.1   | iiig/kg  | 0.51              | 1.0               | < 0.10            | < 0.10            |
|                                       | DETSC 2401# | 0.01  | ma/ka    | < 0.01            |                   | < 0.01            |                   |
|                                       | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 32                                | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 101                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 138                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DETSC 3401# | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DETSC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DETSC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 105                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 114                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DEISC 3401* | 0.01  | mg/Kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 123                               | DETSC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
|                                       | DEISC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 150                               | DEISC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |
| PCB 157                               | DEISC 3401* | 0.01  | mg/kg    | < 0.01            |                   | < 0.01            |                   |

# Summary of Chemical Analysis Soil Samples

|                         | Lab No      |        |          | 2051752    | 2051753    | 2051755    | 2051756    |
|-------------------------|-------------|--------|----------|------------|------------|------------|------------|
|                         |             | .Sa    | mple ID  | F-BH104    | F-BH104    | F-BH104    | F-BH104    |
|                         |             |        | Depth    | 3.00       | 4.00       | 6.00       | 15.75      |
|                         |             | (      | Other ID |            |            |            |            |
|                         |             | Sam    | ple Type | ES         | ES         | ES         | ES         |
|                         |             | Sampl  | ing Date | 17/08/2022 | 17/08/2022 | 17/08/2022 | 18/08/2022 |
|                         |             | Sampli | ng Time  | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD    | Units    |            |            |            |            |
| PCB 167                 | DETSC 3401* | 0.01   | mg/kg    | < 0.01     |            | < 0.01     |            |
| PCB 169                 | DETSC 3401* | 0.01   | mg/kg    | < 0.01     |            | < 0.01     |            |
| PCB 189                 | DETSC 3401* | 0.01   | mg/kg    | < 0.01     |            | < 0.01     |            |
| PCB 7 Total             | DETSC 3401# | 0.01   | mg/kg    | < 0.01     |            | < 0.01     |            |
| Phenols                 |             |        |          |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3    | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| p-cresol                | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |            |
| Subcontracted Analysis  |             |        |          |            |            |            |            |
| Benzene                 | \$*         | <2     | ug/kg    | <2         |            | <2         | <2         |
| Toluene                 | \$*         | <5     | ug/kg    | <5         |            | <5         | <5         |
| Ethylbenzene            | \$*         | <2     | ug/kg    | <2         |            | <2         | <2         |
| p & m-xylene            | \$*         | <2     | ug/kg    | <2         |            | <2         | <2         |
| o-xylene                | \$*         | <2     | ug/kg    | <2         |            | <2         | <2         |
| МТВЕ                    | \$*         | <5     | ug/kg    | <5         |            | <5         | <5         |
| TAME                    | \$*         | < 5    | ug/kg    | < 5        |            | < 5        | < 5        |



# Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            |             |       | Lab No             | 2051753    |
|----------------------------|-------------|-------|--------------------|------------|
|                            |             | .Sa   | ample ID           | F-BH104    |
|                            |             |       | Depth              | 4.00       |
|                            |             |       | Other ID           |            |
|                            |             | Sam   | ple Type           | ES         |
|                            |             | Samp  | ing Date           | 17/08/2022 |
|                            |             | Sampl | ing Time           | n/s        |
| Test                       | Method      | LOD   | Units              |            |
| VOCs                       |             |       |                    |            |
| Vinyl Chloride             | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1.1 Dichloroethylene       | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Trans-1.2-dichloroethylene | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1.1-dichloroethane         | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Cis-1.2-dichloroethylene   | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 2.2-dichloropropane        | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Bromochloromethane         | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Chloroform                 | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1.1-dichloropropene        | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Carbon tetrachloride       | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Benzene                    | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1.2-dichloroethane         | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Trichloroethylene          | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1.2-dichloropropane        | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Dibromomethane             | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Bromodichloromethane       | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Toluene                    | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Tetrachloroethylene        | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,3-dichloropropane        | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Dibromochloromethane       | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,2-dibromoethane          | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Chlorobenzene              | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Ethylbenzene               | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| m+p-Xylene                 | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| o-Xylene                   | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Styrene                    | DETSC 3431* | 0.01  | mg/kg              | < 0.01     |
| Bromoform                  | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Isopropylbenzene           | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| Bromobenzene               | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| n-propylbenzene            | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 2-chlorotoluene            | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01  | mg/kg              | < 0.01     |
| 4-chlorotoluene            | DFTSC 3431  | 0.01  | mø/kø              | < 0.01     |
| Tert-hutvlbenzene          | DETSC 3/31  | 0.01  | 8~ /8····<br>ma/ka | < 0.01     |
| 1.2.4_trimethylbonzono     | DETSC 3431  | 0.01  | ma/ka              | < 0.01     |
|                            | DE13C 3431  | 0.01  | me /li=            | < 0.01     |
| sec-butyibenzene           | DEISC 3431  | 0.01  | ттg/кg             | < 0.01     |



# Summary of Chemical Analysis Soil VOC/SVOC Samples

|                             |             |       | Lab No    | 2051753    |
|-----------------------------|-------------|-------|-----------|------------|
|                             |             | .S    | ample ID  | F-BH104    |
|                             |             |       | Depth     | 4.00       |
|                             |             |       | Other ID  |            |
|                             |             | Sam   | ple Type  | ES         |
|                             |             | Samp  | ling Date | 17/08/2022 |
|                             |             | Sampl | ing Time  | n/s        |
| Test                        | Method      | LOD   | Units     |            |
| p-isopropyltoluene          | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| n-butylbenzene              | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| Hexachlorobutadiene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg     | < 0.01     |
| MTBE                        | DETSC 3431* | 0.01  | mg/kg     | < 0.01     |
| SVOCs                       |             |       |           |            |
| Aniline                     | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 2-Chlorophenol              | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Benzyl Alcohol              | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 2-Methylphenol              | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 3&4-Methylphenol            | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 2-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 3-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 4-Nitrophenol               | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Dibenzofuran                | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Diethylphthalate            | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 4-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Diphenylamine               | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Hexachlorobenzene           | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Pentachlorophenol           | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Di-n-butylphthalate         | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Butylbenzylphthalate        | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Bis(2-ethylhexyl)phthalate  | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |



# Summary of Chemical Analysis Soil VOC/SVOC Samples

|                           |             |       | Lab No    | 2051753    |
|---------------------------|-------------|-------|-----------|------------|
|                           |             | .Sa   | ample ID  | F-BH104    |
|                           |             |       | Depth     | 4.00       |
|                           |             |       | Other ID  |            |
|                           |             | Sam   | ple Type  | ES         |
|                           |             | Samp  | ling Date | 17/08/2022 |
|                           |             | Sampl | ing Time  | n/s        |
| Test                      | Method      | LOD   | Units     |            |
| Di-n-octylphthalate       | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 1,4-Dinitrobenzene        | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Dimethylphthalate         | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| 1,3-Dinitrobenzene        | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 1,2-Dinitrobenzene        | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| 2,3,5,6-Tetrachlorophenol | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |
| Azobenzene                | DETSC 3433  | 0.1   | mg/kg     | < 0.1      |
| Carbazole                 | DETSC 3433* | 0.1   | mg/kg     | < 0.1      |



# Summary of Chemical Analysis Leachate Samples

|                               |                   |         | Lab No                   | 2051757    |
|-------------------------------|-------------------|---------|--------------------------|------------|
|                               |                   | .Sa     | mple ID                  | F-BH104    |
|                               |                   |         | Depth                    | 4.00       |
|                               |                   | C       | Other ID                 |            |
|                               |                   | Samp    | le Type                  | ES         |
|                               |                   | Sampli  | ng Date                  | 17/08/2022 |
|                               |                   | Samplii | ng Time                  | n/s        |
| Test                          | Method            | LOD     | Units                    |            |
| Preparation                   | DETCC 4000*       |         |                          | V          |
| Leachate 2:1 250g Non-WAC     | DETSC 1009*       |         |                          | Y          |
| Ivietais<br>Arconia Dissolved |                   | 0.16    |                          | < 0.16     |
| Arsenic, Dissolved            | DETSC 2306*       | 0.10    | ug/i                     | < 0.10     |
| Boron, Dissolved              | DETSC 2306*       | 12      | ug/i                     | < 12       |
| Caumium, Dissolved            | DETSC 2306        | 0.03    | ug/i                     | < 0.03     |
| Chromium III, Dissolved       | DETSC 2306*       | 1       | ug/i                     | < 1.0      |
| Conpor Dissolved              |                   | 0.007   | 111g/1                   | < U.UU/    |
| Licopper, Dissolved           |                   | 0.4     | ug/I                     | < 0.4      |
| Lood Dissolved                |                   | 5.5     | ug/I                     | < 5.5      |
| Mercury Dissolved             |                   | 0.09    | ug/I                     | < 0.09     |
| Nickol Dissolved              |                   | 0.01    | ug/I                     | < U.UI     |
| Nickel, Dissolved             | DETSC 2306        | 0.5     | ug/i                     | < 0.5      |
| Selenium, Dissolved           | DETSC 2306        | 0.25    | ug/i                     | < 0.25     |
| Zinc, Dissolved               | DETSC 2306        | 1.3     | ug/I                     | < 1.3      |
|                               | D 5700 2000       |         |                          | 10.0       |
|                               | DETSC 2008        | 0.4     | рн                       | 10.9       |
| Cyanide, Total Low Level      | DETSC 2131        | 0.1     | ug/l                     | < 0.1      |
| Cyanide, Free Low Level       | DETSC 2131        | 0.1     | ug/l                     | 2.1        |
| Thiocyanate                   | DETSC 2130        | 20      | ug/l                     | < 20       |
| Total Hardness as CaCO3       | DETSC 2303        | 0.1     | mg/l                     | < 0.10     |
| Ammoniacal Nitrogen as NH4    | <b>DETSC 2207</b> | 0.015   | mg/l                     | 0.03       |
| Ammoniacal Nitrogen as NH3    | DETSC 2207        | 0.015   | mg/l                     | 0.029      |
| Ammoniacal Nitrogen as N      | DETSC 2207        | 0.015   | mg/l                     | 0.024      |
| Nitrate as NO3                | DETSC 2055        | 0.1     | mg/l                     | 1.2        |
| Nitrite as NO2                | DETSC 2055        | 0.1     | mg/l                     | < 0.10     |
| Sulphate as SO4               | DETSC 2055        | 0.1     | mg/l                     | 21         |
| Total Organic Carbon          | DETSC 2085        | 1       | mg/l                     | 6.8        |
| PAHs                          |                   |         | 0.                       |            |
| Acenaphthene                  | DETSC 3304        | 0.01    | ug/l                     | < 0.01     |
| Acenaphthylene                | DETSC 3304        | 0.01    | ug/l                     | < 0.01     |
| Anthracene                    | DETSC 3304        | 0.01    | ug/l                     | < 0.01     |
| Benzo(a)anthracene            | DETSC 3304*       | 0.01    | , رو<br>ا/ مرز           | < 0.01     |
| Benzo(a)pyrene                | DFTSC 3304        | 0.01    | , روی<br>ا/تر            | < 0.01     |
| Benzo(b)fluoranthene          | DETSC 3304        | 0.01    | ر روین<br>ار میں         | < 0.01     |
| Benzo(g h i)nervlene          | DETSC 3304        | 0.01    | ν <sub>6/1</sub><br>μσ/Ι | < 0.01     |
| Renzo(k)fluoranthana          | DETSC 2204        | 0.01    | ug/1                     | < 0.01     |
| Chrusene                      |                   | 0.01    | ug/I                     | < 0.01     |
| Chrysene                      | DEISC 3304        | 0.01    | ug/l                     | < 0.01     |
| Dibenzo(a,h)anthracene        | DETSC 3304        | 0.01    | ug/l                     | < 0.01     |
| Fluoranthene                  | DETSC 3304        | 0.01    | ug/l                     | 0.02       |
| Fluorene                      | DETSC 3304        | 0.01    | ug/l                     | < 0.01     |
| Indeno(1,2,3-c,d)pyrene       | DETSC 3304        | 0.01    | ug/l                     | < 0.01     |



# Summary of Chemical Analysis

# Leachate Samples

|              |            |       | Lab No   | 2051757    |
|--------------|------------|-------|----------|------------|
|              |            | .S    | ample ID | F-BH104    |
|              |            |       | Depth    | 4.00       |
|              |            |       | Other ID |            |
|              |            | Sam   | ple Type | ES         |
|              |            | Samp  | ing Date | 17/08/2022 |
|              |            | Sampl | ing Time | n/s        |
| Test         | Method     | LOD   | Units    |            |
| Naphthalene  | DETSC 3304 | 0.05  | ug/l     | 0.05       |
| Phenanthrene | DETSC 3304 | 0.01  | ug/l     | 0.01       |
| Pyrene       | DETSC 3304 | 0.01  | ug/l     | 0.01       |
| PAH Total    | DETSC 3304 | 0.2   | ug/l     | < 0.20     |

# Summary of Asbestos Analysis Soil Samples

Our Ref 22-17019 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst         |
|---------|--------------|---------------|--------|----------|-----------------|
| 2051752 | F-BH104 3.00 | SOIL          | NAD    | none     | Darryl Fletcher |
| 2051753 | F-BH104 4.00 | SOIL          | NAD    | none     | Darryl Fletcher |
| 2051754 | F-BH104 5.00 | SOIL          | NAD    | none     | Darryl Fletcher |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



inannronriate

# Information in Support of the Analytical Results

Our Ref 22-17019 Client Ref 60678042 Contract NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |   | container for |
|---------|-----------------------|----------|----------------------------|---|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                         | tests         |
| 2051752 | F-BH104 3.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), p⊦ | I             |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2051753 | F-BH104 4.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH | 1             |
|         |                       |          |                            | + Conductivity (7 days). VOC (7 days)                   |               |
| 2051754 | F-BH104 5.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   |   |               |
| 2051755 | F-BH104 6.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH | I             |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2051756 | F-BH104 15.75 SOIL    | 18/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH | I             |
|         |                       |          |                            | + Conductivity (7 days)                                 |               |
| 2051757 | F-BH104 4.00 LEACHATE | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   |   |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



# Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

#### End of Report



Issued: 29-Sep-22

Certificate Number 22-17084,22-18502 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

| Our Reference    | 22-17084,22-18502                    |
|------------------|--------------------------------------|
| Client Reference | 60678042                             |
| Order No         | (not supplied)                       |
| Contract Title   | NZT FEED GI                          |
| Description      | 10 Soil samples, 4 Leachate samples. |

Date Received 31-Aug-22

| Date Started | 31-Aug-22 |
|--------------|-----------|
|--------------|-----------|

Date Completed 29-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

Gemood.

Kirk Bridgewood General Manager





|                                 |             |        | Lab No   | 2052023    | 2052024    | 2052025    | 2052027    | 2052028    | 2052029    | 2052030    |
|---------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|------------|
|                                 |             | .Sa    | mple ID  | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH115    |
|                                 |             |        | Depth    | 0.20       | 2.20       | 3.20       | 6.20       | 7.50       | 15.70      | 4.30       |
|                                 |             | (      | Other ID |            |            |            |            |            |            |            |
|                                 |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                                 |             | Sampl  | ing Date | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 | 26/08/2022 | 25/08/2022 |
|                                 |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                            | Method      | LOD    | Units    |            |            |            |            |            |            |            |
| Asbestos Quantification         | DETSC 1102  | 0.001  | %        |            | 0.002      | < 0.001    |            |            |            |            |
| QTSSubcon Prep                  | \$          | 0      |          |            | Y          |            | Y          | Y          |            |            |
| Subcon to QTS                   | \$          | 0      |          |            | Y          |            | Y          | Y          |            |            |
| Preparation                     | 1           |        |          |            |            |            |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 9.8        | 12         |            | 17         | 18         | 22         | 13         |
| Metals                          | 1           |        |          |            |            |            |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg    |            |            |            |            |            |            |            |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 8.0        | 13         |            | 14         | 6.3        | 10         | 51         |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | < 0.2      | 0.4        |            | 0.5        | < 0.2      | 0.6        | 2.5        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 5.2        | 3.2        |            | 3.3        | 1.0        | 6.1        | 1.1        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 1.2        | 1.9        |            | 0.8        | < 0.1      | 0.2        | 8.2        |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 570        | 700        |            | 57         | 31         | 23         | 180        |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      |            | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 71         | 120        |            | 18         | 5.9        | 15         | 100        |
| Iron                            | DETSC 2301  | 25     | mg/kg    |            |            |            |            |            |            |            |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 74         | 110        |            | 220        | 36         | 16         | 1200       |
| Manganese                       | DETSC 2301# | 20     | mg/kg    |            |            |            |            |            |            |            |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | 0.14       | 0.24       |            | 2.7        | < 0.05     | < 0.05     | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    |            |            |            |            |            |            |            |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 19         | 30         |            | 11         | 3.6        | 22         | 37         |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    |            |            |            |            |            |            |            |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 7.0        | 3.6        |            | 1.0        | < 0.5      | < 0.5      | 2.5        |
| Tin                             | DETSC 2301  | 1      | mg/kg    |            |            |            |            |            |            |            |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 1500       | 1300       |            | 120        | 62         | 42         | 1300       |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 330        | 370        |            | 560        | 82         | 64         | 8400       |
| Inorganics                      |             |        |          |            |            |            |            |            |            |            |
| рН                              | DETSC 2008# |        | рН       | 11.2       | 11.0       |            | 10.9       | 10.8       | 8.7        | 11.5       |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | 2.1        | 3.3        |            | 27         | 3.8        | 0.6        | 1.4        |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      |            | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | < 0.6      | < 0.6      |            | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 0.9        | 1.4        |            | 0.8        | 0.6        | 1.7        | 2.2        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    |            |            |            |            |            |            |            |
| Chloride                        | DETSC 2055  | 1      | mg/kg    |            |            |            |            |            |            |            |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    |            |            |            |            |            |            |            |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | 14         | 3.2        |            | 3.0        | < 1.0      | < 1.0      | 6.1        |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    |            |            |            |            |            |            |            |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 180        | 190        |            | 340        | 100        | 780        | 180        |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 190        | 170        |            | 430        | 140        | 110        | 230        |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 2.7        | 1.5        |            | 1.3        | < 0.75     | 3.9        | < 0.75     |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.52       | 0.14       |            | 0.09       | 0.03       | 0.33       | 0.35       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 1.8        | 0.46       |            | 0.37       | 0.10       | 0.17       | 0.27       |



|                                       |             |        | Lab No   | 2052023    | 2052024    | 2052025    | 2052027    | 2052028    | 2052029    | 2052030    |
|---------------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|------------|
|                                       |             | .Sa    | mple ID  | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH115    |
|                                       |             |        | Depth    | 0.20       | 2.20       | 3.20       | 6.20       | 7.50       | 15.70      | 4.30       |
|                                       |             | C      | Other ID |            |            |            |            |            |            |            |
|                                       |             | Samp   | ole Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampli | ng Date  | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 | 26/08/2022 | 25/08/2022 |
|                                       |             | Sampli | ng Time  | n/s        |
| Test                                  | Method      | LOD    | Units    |            |            |            |            |            |            |            |
| Petroleum Hydrocarbons                |             |        |          |            |            |            |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL        | DETSC 3521# | 1.5    | mg/kg    | < 1.50     | < 1.50     |            | < 1.50     | < 1.50     | < 1.50     | < 1.50     |
| Aliphatic >EC12-EC16: EH_2D_AL        | DETSC 3521# | 1.2    | mg/kg    | 2.86       | 3.58       |            | < 1.20     | < 1.20     | 4.71       | < 1.20     |
| Aliphatic >EC16-EC21: EH_2D_AL        | DETSC 3521# | 1.5    | mg/kg    | 3.26       | 5.52       |            | < 1.50     | < 1.50     | 4.44       | 2.66       |
| Aliphatic >EC21-EC35: EH_2D_AL        | DETSC 3521# | 3.4    | mg/kg    | 8.80       | 32.44      |            | 5.45       | < 3.40     | < 3.40     | 184.6      |
| Aliphatic >EC35-EC40: EH_2D_AL        | DETSC 3521# | 3.4    | mg/kg    | < 3.40     | 4.63       |            | < 3.40     | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS_1D_AL      | DETSC 3521* | 10     | mg/kg    | 20.38      | 47.91      |            | 14.64      | 13.41      | 19.77      | 193.3      |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9    | mg/kg    | < 0.90     | < 0.90     |            | < 0.90     | < 0.90     | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5    | mg/kg    | < 0.50     | < 0.50     |            | < 0.50     | < 0.50     | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6    | mg/kg    | 1.29       | 0.69       |            | < 0.60     | < 0.60     | < 0.60     | 0.61       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4    | mg/kg    | 4.56       | 2.41       |            | < 1.40     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4    | mg/kg    | < 1.40     | < 1.40     |            | < 1.40     | < 1.40     | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10     | mg/kg    | < 10.00    | < 10.00    |            | < 10.00    | < 10.00    | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10     | mg/kg    | 29.37      | 54.22      |            | 20.46      | 19.28      | 25.93      | 198.2      |
| PAHs                                  |             |        |          |            |            |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg    | 0.03       | 0.04       |            | 0.05       | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg    | 0.24       | 0.16       |            | 0.07       | 0.08       | < 0.03     | 0.14       |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg    | 0.15       | 0.08       |            | < 0.03     | < 0.03     | < 0.03     | 0.18       |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | 0.44       | 0.22       |            | 0.07       | < 0.03     | < 0.03     | 0.35       |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg    | 0.15       | 0.07       |            | < 0.03     | < 0.03     | < 0.03     | 0.14       |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | 0.19       | 0.10       |            | 0.03       | < 0.03     | < 0.03     | 0.15       |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg    | 0.42       | 0.26       |            | 0.11       | 0.04       | < 0.03     | 0.24       |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg    | 0.04       | < 0.03     |            | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg    | 0.48       | 0.55       |            | 0.29       | 0.05       | < 0.03     | 0.58       |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg    | 0.14       | 0.07       |            | < 0.03     | < 0.03     | < 0.03     | 0.13       |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg    | 0.18       | 0.21       |            | 0.27       | 0.04       | < 0.03     | 0.11       |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg    | 0.67       | 0.42       |            | 0.27       | 0.05       | < 0.03     | 0.42       |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg    | 3.1        | 2.2        |            | 1.1        | 0.26       | < 0.10     | 2.4        |



|                         |             |        | Lab No   | 2052023    | 2052024    | 2052025    | 2052027    | 2052028    | 2052029    | 2052030    |
|-------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|------------|
|                         |             | .Sa    | mple ID  | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH103    | F-BH115    |
|                         |             |        | Depth    | 0.20       | 2.20       | 3.20       | 6.20       | 7.50       | 15.70      | 4.30       |
|                         |             | (      | Other ID |            |            |            |            |            |            |            |
|                         |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                         |             | Sampl  | ing Date | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 | 26/08/2022 | 25/08/2022 |
|                         |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD    | Units    |            |            |            |            |            |            |            |
| PCBs                    |             |        |          |            |            |            |            |            |            |            |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 52                  | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 101                 | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 118                 | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 153                 | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 138                 | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 180                 | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 77                  | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 81                  | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 105                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 114                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 118                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 123                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 126                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 156                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 157                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 167                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 169                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 189                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| PCB 7 Total             | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| Phenols                 |             |        |          |            |            |            |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3    | mg/kg    | < 0.3      | < 0.3      |            | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| p-cresol                | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            | < 0.01     |            |            |
| Subcontracted Analysis  |             |        |          |            |            |            |            |            |            |            |
| Benzene                 | \$*         | <2     | ug/kg    |            | <2         |            | <2         | <2         |            |            |
| Toluene                 | \$*         | <5     | ug/kg    |            | <5         |            | <5         | <5         |            |            |
| Ethylbenzene            | \$*         | <2     | ug/kg    |            | <2         |            | <2         | <2         |            |            |
| p & m-xylene            | \$*         | <2     | ug/kg    |            | <2         |            | <2         | <2         |            |            |
| o-xylene                | \$*         | <2     | ug/kg    |            | <2         |            | <2         | <2         |            |            |
| МТВЕ                    | \$*         | <5     | ug/kg    |            | <5         |            | <5         | <5         |            |            |
| TAME                    | \$*         | < 5    | ug/kg    |            | < 5        |            | < 5        | < 5        |            |            |



|                                 |             |       | Lab No   | 2052031    | 2059563    |
|---------------------------------|-------------|-------|----------|------------|------------|
|                                 |             | .Sa   | ample ID | F-BH115    | F-BH103    |
|                                 |             |       | Depth    | 5.00       | 0.20       |
|                                 |             |       | Other ID |            |            |
|                                 |             | Sam   | ple Type | ES         | ES         |
|                                 |             | Sampl | ing Date | 25/08/2022 | 25/08/2022 |
|                                 |             | Sampl | ing Time | n/s        | n/s        |
| Test                            | Method      | LOD   | Units    |            |            |
| Asbestos Quantification         | DETSC 1102  | 0.001 | %        |            |            |
| QTSSubcon Prep                  | \$          | 0     |          | Y          |            |
| Subcon to QTS                   | \$          | 0     |          | Y          |            |
| Preparation                     |             |       |          |            |            |
| Moisture Content                | DETSC 1004  | 0.1   | %        | 19         |            |
| Metals                          |             |       |          |            |            |
| Aluminium                       | DETSC 2301* | 1     | mg/kg    |            | 12000      |
| Arsenic                         | DETSC 2301# | 0.2   | mg/kg    | 7.3        |            |
| Beryllium                       | DETSC 2301# | 0.2   | mg/kg    | < 0.2      |            |
| Boron, Water Soluble            | DETSC 2311# | 0.2   | mg/kg    | 0.2        |            |
| Cadmium                         | DETSC 2301# | 0.1   | mg/kg    | < 0.1      |            |
| Chromium III                    | DETSC 2301* | 0.15  | mg/kg    | 2.2        |            |
| Chromium, Hexavalent            | DETSC 2204* | 1     | mg/kg    | < 1.0      |            |
| Copper                          | DETSC 2301# | 0.2   | mg/kg    | 1.5        |            |
| Iron                            | DETSC 2301  | 25    | mg/kg    |            | 150000     |
| Lead                            | DETSC 2301# | 0.3   | mg/kg    | 14         |            |
| Manganese                       | DETSC 2301# | 20    | mg/kg    |            | 32000      |
| Mercury                         | DETSC 2325# | 0.05  | mg/kg    | < 0.05     |            |
| Molybdenum                      | DETSC 2301# | 0.4   | mg/kg    |            | 11         |
| Nickel                          | DETSC 2301# | 1     | mg/kg    | 1.7        |            |
| Phosphorus                      | DETSC 2301* | 1     | mg/kg    |            | 3000       |
| Selenium                        | DETSC 2301# | 0.5   | mg/kg    | < 0.5      |            |
| Tin                             | DETSC 2301  | 1     | mg/kg    |            | 10         |
| Vanadium                        | DETSC 2301# | 0.8   | mg/kg    | 11         |            |
| Zinc                            | DETSC 2301# | 1     | mg/kg    | 17         |            |
| Inorganics                      |             |       |          |            |            |
| рН                              | DETSC 2008# |       | рН       | 9.6        |            |
| Cyanide, Total                  | DETSC 2130# | 0.1   | mg/kg    | 0.8        |            |
| Cyanide, Free                   | DETSC 2130# | 0.1   | mg/kg    | < 0.1      |            |
| Thiocyanate                     | DETSC 2130# | 0.6   | mg/kg    | < 0.6      |            |
| Organic matter                  | DETSC 2002# | 0.1   | %        | 0.1        |            |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5   | mg/kg    |            | 1.2        |
| Chloride                        | DETSC 2055  | 1     | mg/kg    |            | 49.1       |
| Fluoride                        | DETSC 2055  | 1     | mg/kg    |            | 7.4        |
| Nitrate as NO3                  | DETSC 2055  | 1     | mg/kg    | < 1.0      |            |
| Ortho Phosphate as P            | DETSC 2205* | 0.1   | mg/kg    |            | 0.20       |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l     | 40         |            |
| Sulphide                        | DETSC 2024* | 10    | mg/kg    | 32         |            |
| Sulphur (free)                  | DETSC 3049# | 0.75  | mg/kg    | < 0.75     |            |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %        | 0.02       |            |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %        | 0.06       |            |



|                                       |             |       | Lab No   | 2052031    | 2059563    |
|---------------------------------------|-------------|-------|----------|------------|------------|
|                                       |             | .Sa   | ample ID | F-BH115    | F-BH103    |
|                                       |             |       | Depth    | 5.00       | 0.20       |
|                                       |             |       | Other ID |            |            |
|                                       |             | Sam   | ple Type | ES         | ES         |
|                                       |             | Sampl | ing Date | 25/08/2022 | 25/08/2022 |
|                                       |             | Sampl | ing Time | n/s        | n/s        |
| Test                                  | Method      | LOD   | Units    |            |            |
| Petroleum Hydrocarbons                |             |       |          |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     |            |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     |            |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01  | mg/kg    | < 0.01     |            |
| Aliphatic >EC10-EC12: EH_2D_AL        | DETSC 3521# | 1.5   | mg/kg    | < 1.50     |            |
| Aliphatic >EC12-EC16: EH_2D_AL        | DETSC 3521# | 1.2   | mg/kg    | 3.15       |            |
| Aliphatic >EC16-EC21: EH_2D_AL        | DETSC 3521# | 1.5   | mg/kg    | 2.97       |            |
| Aliphatic >EC21-EC35: EH_2D_AL        | DETSC 3521# | 3.4   | mg/kg    | < 3.40     |            |
| Aliphatic >EC35-EC40: EH_2D_AL        | DETSC 3521# | 3.4   | mg/kg    | < 3.40     |            |
| Aliphatic C5-C40: EH_2D+HS_1D_AL      | DETSC 3521* | 10    | mg/kg    | 16.44      |            |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     |            |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     |            |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     |            |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9   | mg/kg    | < 0.90     |            |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5   | mg/kg    | < 0.50     |            |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6   | mg/kg    | < 0.60     |            |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4   | mg/kg    | < 1.40     |            |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4   | mg/kg    | < 1.40     |            |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10    | mg/kg    | < 10.00    |            |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10    | mg/kg    | 22.43      |            |
| PAHs                                  |             |       |          |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     |            |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     |            |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     |            |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     |            |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     |            |



|                         |             |       | Lab No    | 2052031    | 2059563    |
|-------------------------|-------------|-------|-----------|------------|------------|
|                         |             | .Sa   | ample ID  | F-BH115    | F-BH103    |
|                         |             |       | Depth     | 5.00       | 0.20       |
|                         |             |       | Other ID  |            |            |
|                         |             | Sam   | ple Type  | ES         | ES         |
|                         |             | Samp  | ling Date | 25/08/2022 | 25/08/2022 |
|                         |             | Sampl | ing Time  | n/s        | n/s        |
| Test                    | Method      | LOD   | Units     |            |            |
| PCBs                    |             |       |           |            |            |
| PCB 28 + PCB 31         | DETSC 3401# | 0.01  | mg/kg     |            |            |
| PCB 52                  | DETSC 3401# | 0.01  | mg/kg     |            |            |
| PCB 101                 | DETSC 3401# | 0.01  | mg/kg     |            |            |
| PCB 118                 | DETSC 3401# | 0.01  | mg/kg     |            |            |
| PCB 153                 | DETSC 3401# | 0.01  | mg/kg     |            |            |
| PCB 138                 | DETSC 3401# | 0.01  | mg/kg     |            |            |
| PCB 180                 | DETSC 3401# | 0.01  | mg/kg     |            |            |
| РСВ 77                  | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 81                  | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 105                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 114                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 118                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 123                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 126                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 156                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 157                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 167                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 169                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 189                 | DETSC 3401* | 0.01  | mg/kg     |            |            |
| PCB 7 Total             | DETSC 3401# | 0.01  | mg/kg     |            |            |
| Phenols                 |             |       |           |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg     | < 0.3      |            |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg     |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg     |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg     |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg     |            |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg     |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg     |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg     |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg     |            |            |
| Subcontracted Analysis  |             |       |           |            |            |
| Benzene                 | \$*         | <2    | ug/kg     | <2         |            |
| Toluene                 | \$*         | <5    | ug/kg     | <5         |            |
| Ethylbenzene            | \$*         | <2    | ug/kg     | <2         |            |
| p & m-xylene            | \$*         | <2    | ug/kg     | <2         |            |
| o-xylene                | \$*         | <2    | ug/kg     | <2         |            |
| МТВЕ                    | \$*         | <5    | ug/kg     | <5         |            |
| ТАМЕ                    | \$*         | < 5   | ug/kg     | < 5        |            |



# Summary of Chemical Analysis

# **Leachate Samples**

|                            | Lab No      |       | 2052032  | 2052033    | 2055153    | 2059564    |            |
|----------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                            |             | .S    | ample ID | F-BH103    | F-BH103    | F-BH115    | F-BH103    |
|                            |             |       | Depth    | 0.20       | 2.20       | 4.30       | 0.20       |
|                            |             |       | Other ID |            |            |            |            |
|                            |             | Sam   | ple Type | ES         | ES         | LEACHATE   | ES         |
|                            |             | Samp  | ing Date | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 |
|                            |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                       | Method      | LOD   | Units    |            |            |            |            |
| Preparation                |             |       |          |            |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |       |          | Y          | Y          | Y          | Y          |
| Metals                     |             |       |          |            |            |            |            |
| Aluminium, Dissolved       | DETSC 2306  | 10    | ug/l     |            |            |            | 420        |
| Arsenic, Dissolved         | DETSC 2306  | 0.16  | ug/l     | 1.5        | 0.50       | 4.9        |            |
| Beryllium, Dissolved       | DETSC 2306* | 0.1   | ug/l     |            |            |            | < 0.1      |
| Boron, Dissolved           | DETSC 2306* | 12    | ug/l     | 17         | < 12       | 46         |            |
| Cadmium, Dissolved         | DETSC 2306  | 0.03  | ug/l     | < 0.03     | < 0.03     | < 0.03     |            |
| Chromium III, Dissolved    | DETSC 2306* | 1     | ug/l     | 1.9        | 1.5        | < 1.0      |            |
| Chromium, Hexavalent       | DETSC 2203  | 0.007 | mg/l     | < 0.007    | 0.107      | < 0.007    |            |
| Copper, Dissolved          | DETSC 2306  | 0.4   | ug/l     | 6.7        | 5.9        | 2.9        |            |
| Iron, Dissolved            | DETSC 2306  | 5.5   | ug/l     | 7.6        | < 5.5      | 6.8        |            |
| Lead, Dissolved            | DETSC 2306  | 0.09  | ug/l     | 2.4        | 2.2        | 1.9        |            |
| Manganese, Dissolved       | DETSC 2306  | 0.22  | ug/l     |            |            |            | 0.41       |
| Mercury, Dissolved         | DETSC 2306  | 0.01  | ug/l     | 0.04       | 0.04       | 0.01       |            |
| Molybdenum, Dissolved      | DETSC 2306  | 1.1   | ug/l     |            |            |            | 7.4        |
| Nickel, Dissolved          | DETSC 2306  | 0.5   | ug/l     | < 0.5      | < 0.5      | < 0.5      |            |
| Phosphorus as P, Dissolved | DETSC 2306  | 18    | ug/l     |            |            |            | < 18       |
| Selenium, Dissolved        | DETSC 2306  | 0.25  | ug/l     | 1.6        | 0.72       | 2.3        |            |
| Tin, Dissolved             | DETSC 2306* | 0.4   | ug/l     |            |            |            | < 0.4      |
| Vanadium, Dissolved        | DETSC 2306  | 0.6   | ug/l     |            |            |            | 52         |
| Zinc, Dissolved            | DETSC 2306  | 1.3   | ug/l     | 5.6        | 2.3        | 2.1        |            |
| Inorganics                 |             |       |          |            |            |            |            |
| рН                         | DETSC 2008  |       | рН       | 11.5       | 11.5       | 8.0        |            |
| Cyanide, Total Low Level   | DETSC 2131  | 0.1   | ug/l     | 0.5        | < 0.1      | 5.9        |            |
| Cyanide, Free Low Level    | DETSC 2131  | 0.1   | ug/l     | < 0.1      | < 0.1      | 0.3        |            |
| Thiocyanate                | DETSC 2130  | 20    | ug/l     | < 20       | < 20       | < 20       |            |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1   | mg/l     | 143        | 140        | 44.9       |            |
| Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015 | mg/l     | 0.06       | 0.06       | 0.03       |            |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015 | mg/l     | 0.056      | 0.058      | 0.027      |            |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015 | mg/l     | 0.046      | 0.047      | 0.022      |            |
| Chloride                   | DETSC 2055  | 0.1   | mg/l     |            |            |            | 4.5        |
| Fluoride                   | DETSC 2055* | 0.1   | mg/l     |            |            |            | 0.66       |
| Nitrate as NO3             | DETSC 2055  | 0.1   | mg/l     | 0.85       | 0.37       | 1.0        |            |
| Nitrite as NO2             | DETSC 2055  | 0.1   | mg/l     | < 0.10     | 0.13       | 0.53       |            |
| Ortho Phosphate as P       | DETSC 2205  | 0.01  | mg/l     |            |            |            | < 0.01     |
| Sulphate as SO4            | DETSC 2055  | 0.1   | mg/l     | 21         | 11         | 55         |            |
| Total Organic Carbon       | DETSC 2085  | 1     | mg/l     | 4.4        | 4.8        | 2.4        |            |
| PAHs                       | 1           | ,     |          |            |            |            |            |
| Acenaphthene               | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |            |
| Acenaphthylene             | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |            |
| Anthracene                 | DETSC 3304  | 0.01  | ug/l     | 0.01       | 0.02       | < 0.01     |            |



# Summary of Chemical Analysis Leachate Samples

|                         | Lab No      |        | 2052032  | 2052033    | 2055153    | 2059564    |            |
|-------------------------|-------------|--------|----------|------------|------------|------------|------------|
|                         |             | .Sa    | mple ID  | F-BH103    | F-BH103    | F-BH115    | F-BH103    |
|                         |             |        | Depth    | 0.20       | 2.20       | 4.30       | 0.20       |
|                         |             | (      | Other ID |            |            |            |            |
|                         |             | Sam    | ole Type | ES         | ES         | LEACHATE   | ES         |
|                         |             | Sampl  | ing Date | 25/08/2022 | 25/08/2022 | 25/08/2022 | 25/08/2022 |
|                         |             | Sampli | ng Time  | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD    | Units    |            |            |            |            |
| Benzo(a)anthracene      | DETSC 3304* | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.03       |            |
| Benzo(a)pyrene          | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.02       |            |
| Benzo(b)fluoranthene    | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.05       |            |
| Benzo(g,h,i)perylene    | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.02       |            |
| Benzo(k)fluoranthene    | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.02       |            |
| Chrysene                | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.03       |            |
| Dibenzo(a,h)anthracene  | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | < 0.01     |            |
| Fluoranthene            | DETSC 3304  | 0.01   | ug/l     | 0.02       | < 0.01     | 0.06       |            |
| Fluorene                | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | < 0.01     |            |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304  | 0.01   | ug/l     | < 0.01     | < 0.01     | 0.01       |            |
| Naphthalene             | DETSC 3304  | 0.05   | ug/l     | < 0.05     | < 0.05     | < 0.05     |            |
| Phenanthrene            | DETSC 3304  | 0.01   | ug/l     | 0.02       | 0.01       | 0.01       |            |
| Pyrene                  | DETSC 3304  | 0.01   | ug/l     | 0.02       | < 0.01     | 0.03       |            |
| PAH Total               | DETSC 3304  | 0.2    | ug/l     | < 0.20     | < 0.20     | 0.28       |            |

# Summary of Asbestos Analysis Soil Samples

Our Ref 22-17084,22-18502 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No  | Sample ID    | Material Type | Result             | Comment*  | Analyst     |
|---------|--------------|---------------|--------------------|---|-------------|
| 2052023 | F-BH103 0.20 | SOIL          | NAD                | none  | Michael Kay |
| 2052024 | F-BH103 2.20 | SOIL          | Chrysotile Amosite | amosite and chrysotile in microscopic loose fibrous asbestos insulation | Michael Kay |
| 2052025 | F-BH103 3.20 | SOIL          | Chrysotile         | bundles of chrysotile   | Michael Kay |
| 2052026 | F-BH103 4.20 | SOIL          | NAD                | none  | Michael Kay |
| 2052027 | F-BH103 6.20 | SOIL          | NAD                | none  | Michael Kay |
| 2052030 | F-BH115 4.30 | SOIL          | NAD                | none  | Michael Kay |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* -not included in laboratory scope of accreditation.



# Summary of Asbestos Quantification Analysis Soil Samples

*Our Ref* 22-17084,22-18502 *Client Ref* 60678042 *Contract Title* NZT FEED GI

|  |            | Lab No     | 2052024    | 2052025    |
|--|------------|------------|------------|------------|
|  | -          | Sample ID  | F-BH103    | F-BH103    |
|  |            | Depth      | 2.20       | 3.20       |
|  |            | Other ID   |            |            |
|  | Sai        | nple Type  | ES         | ES         |
|  | Sam        | pling Date | 25/08/2022 | 25/08/2022 |
|  | Samj       | oling Time |            |            |
| Test   | Method     | Units      |            |            |
| Total Mass% Asbestos (a+b+c)                           | DETSC 1102 | Mass %     | 0.002      | < 0.001    |
| Gravimetric Quantification (a)                         | DETSC 1102 | Mass %     | 0.002      | na         |
| Detailed Gravimetric Quantification (b)                | DETSC 1102 | Mass %     | na         | <0.001     |
| Quantification by PCOM (c)                             | DETSC 1102 | Mass %     | na         | na         |
| Potentially Respirable Fibres (d)                      | DETSC 1102 | Fibres/g   | na         | na         |
| Breakdown of Gravimetric Analysis (a)                  |            |            |            |            |
| Mass of Sample   |            | g          | 27.88      | 66.15      |
| ACMs present*  |            | type       | LFAD       |            |
| Mass of ACM in sample                                  |            | g          | 0.00       |            |
| % ACM by mass  |            | %          | 0.00       |            |
| % asbestos in ACM                                      |            | %          | 85.00      |            |
| % asbestos in sample                                   |            | %          | 0.002      |            |
| Breakdown of Detailed Gravimetric Analysis (b)         |            |            |            |            |
| % Amphibole bundles in sample                          |            | Mass %     | na         | na         |
| % Chrysotile bundles in sample                         |            | Mass %     | na         | <0.001     |
| Breakdown of PCOM Analysis (c)                         |            |            |            |            |
| % Amphibole fibres in sample                           |            | Mass %     | na         | na         |
| % Chrysotile fibres in sample                          |            | Mass %     | na         | na         |
| Breakdown of Potentially Respirable Fibre Analysis (d) |            |            |            |            |
| Amphibole fibres                                       |            | Fibres/g   | na         | na         |
| Chrysotile fibres                                      |            | Fibres/g   | na         | na         |
|  |            |            |            |            |

\* Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264. Recommended sample size for quantification is approximately 1kg

# denotes deviating sample



### Information in Support of the Analytical Results

Our Ref 22-17084,22-18502 Client Ref 60678042 Contract NZT FEED GI

#### **Containers Received & Deviating Samples**

|              |                       |          |                          | Holding time | Inappropriate |
|--------------|-----------------------|----------|--------------------------|--------------|---------------|
|              |                       | Date     |                          | exceeded for | container for |
| Lab No       | Sample ID             | Sampled  | Containers Received      | tests        | tests         |
| 2052023      | F-BH103 0.20 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052024      | F-BH103 2.20 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052025      | F-BH103 3.20 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052026      | F-BH103 4.20 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052027      | F-BH103 6.20 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052028      | F-BH103 7.50 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052029      | F-BH103 15.70 SOIL    | 26/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052030      | F-BH115 4.30 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052031      | F-BH115 5.00 SOIL     | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052032      | F-BH103 0.20 LEACHATE | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2052033      | F-BH103 2.20 LEACHATE | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| 2055153      | F-BH115 4.30 LEACHATE | 25/08/22 | GJ 250ml, GJ 60ml, PT 1L |              |               |
| Key: G-Glass | P-Plastic J-Jar T-Tub |          |                          |              |               |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



# Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued: 16-Sep-22

Certificate Number 22-17093,22-17940 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

*Our Reference* 22-17093,22-17940

- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 9 Soil samples.
  - Date Received 31-Aug-22
  - Date Started 31-Aug-22
- Date Completed 16-Sep-22

*Test Procedures* Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

emood

Kirk Bridgewood General Manager





# Summary of Chemical Analysis

## Soil Samples

*Our Ref* 22-17093,22-17940 *Client Ref* 60678042 *Contract Title* NZT Feed GI

|                                 |             |       | Lab No   | 2052084    | 2052085    | 2052086    | 2052087    | 2052088    | 2052089     | 2052090     | 2052091     | 2056581     |
|---------------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
|                                 |             | .Sa   | ample ID | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH124     | F-BH124     | F-BH124     | F-BH124     |
|                                 |             |       | Depth    | 3.79-3.90  | 5.50-6.00  | 6.70-6.80  | 7.50-7.60  | 9.90-10.50 | 11.10-11.20 | 12.00-12.10 | 14.30-14.90 | 26.20-26.30 |
|                                 |             | (     | Other ID |            |            |            |            |            |             |             |             |             |
|                                 |             | Sam   | ple Type | D          | В          | D          | D          | В          | D           | D           | В           | SOIL        |
|                                 |             | Sampl | ing Date | 01/08/2022 | 11/08/2022 | 11/08/2022 | 02/08/2022 | 02/08/2022 | 02/08/2022  | 02/08/2022  | 02/08/2022  | 04/08/2022  |
|                                 |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s         | n/s         | n/s         | n/s         |
| Test                            | Method      | LOD   | Units    |            |            |            |            |            |             |             |             |             |
| Inorganics                      |             |       |          |            |            |            |            |            |             |             |             |             |
| рН                              | DETSC 2008# |       | рН       | 11.9       | 9.1        | 9.2        |            | 9.1        |             | 8.2         | 8.4         | 8.8         |
| Organic matter                  | DETSC 2002# | 0.1   | %        |            |            |            |            |            | 0.8         |             |             |             |
| Carbonate (as CO2)              | DETSC 2005  | 1     | %        |            |            |            | 4.2        | 4.4        |             |             |             |             |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l     | 99         | 120        | 200        |            | 140        |             | 380         | 190         | 420         |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %        | 0.22       | 0.03       | 0.65       |            | 0.04       |             | 0.37        | 0.04        | 1.1         |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %        | 0.47       | 0.06       | 0.16       |            | 0.07       |             | 0.19        | 0.07        | 0.16        |



inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-17093,22-17940 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | Date     |                            |  | container for |
|---------|--------------------------|----------|----------------------------|--|---------------|
| Lab No  | Sample ID                | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests  | tests         |
| 2052084 | F-BH124 3.79-3.90 SOIL   | 01/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days)                         |               |
| 2052085 | F-BH124 5.50-6.00 SOIL   | 11/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days)                         |               |
| 2052086 | F-BH124 6.70-6.80 SOIL   | 11/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days)                         |               |
| 2052087 | F-BH124 7.50-7.60 SOIL   | 02/08/22 | PT 1L                      | Carbonate (28 days)  |               |
| 2052088 | F-BH124 9.90-10.50 SOIL  | 02/08/22 | PT 1L                      | Carbonate (28 days), Total Sulphur ICP (7 days), pH +<br>Conductivity (7 days) |               |
| 2052089 | F-BH124 11.10-11.20 SOIL | 02/08/22 | PT 1L                      | Organic Matter (Manual) (28 days)  |               |
| 2052090 | F-BH124 12.00-12.10 SOIL | 02/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days)                         |               |
| 2052091 | F-BH124 14.30-14.90 SOIL | 02/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days)                         |               |

#### Key: P-Plastic T-Tub

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#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued:

Certificate Number 22-17096

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-17096
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 9 Soil samples.
  - Date Received 31-Aug-22
  - Date Started 31-Aug-22
- Date Completed 06-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lyemood

Kirk Bridgewood General Manager



06-Sep-22



# Summary of Chemical Analysis

## **Soil Samples**

|                                 |             |       | Lab No    | 2052094    | 2052095    | 2052096    | 2052097    | 2052098    | 2052099     | 2052100     | 2052101     | 2052102     |
|---------------------------------|-------------|-------|-----------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
|                                 |             | .Sa   | ample ID  | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120     | F-BH120     | F-BH120     | F-BH120     |
|                                 |             |       | Depth     | 4.10-4.50  | 4.83-5.20  | 6.80-6.90  | 7.50-7.60  | 9.60-9.70  | 12.40-12.50 | 13.50-13.60 | 14.00-15.00 | 30.00-31.50 |
|                                 |             |       | Other ID  |            |            |            |            |            |             |             |             |             |
|                                 |             | Sam   | ple Type  | В          | В          | D          | D          | D          | D           | D           | В           | C           |
|                                 |             | Samp  | ling Date | 02/08/2022 | 02/08/2022 | 03/08/2022 | 03/08/2022 | 03/08/2022 | 03/08/2022  | 04/08/2022  | 04/08/2022  | 04/08/2022  |
|                                 |             | Sampl | ing Time  | n/s        | n/s        | n/s        | n/s        | n/s        | n/s         | n/s         | n/s         | n/s         |
| Test                            | Method      | LOD   | Units     |            |            |            |            |            |             |             |             |             |
| Inorganics                      |             |       |           |            |            |            |            |            |             |             |             |             |
| рН                              | DETSC 2008# |       | рН        | 10.4       |            |            | 8.9        |            | 8.4         |             | 8.2         | 8.9         |
| Organic matter                  | DETSC 2002# | 0.1   | %         |            |            | 2.8        |            |            |             | 2.0         |             |             |
| Carbonate (as CO2)              | DETSC 2005  | 1     | %         |            | 2.5        |            |            | 4.9        |             |             |             |             |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l      | 820        |            |            | 290        |            | 430         |             | 230         | 370         |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %         | 0.29       |            |            | 0.09       |            | 0.15        |             | 0.10        | 0.69        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %         | 2.6        |            |            | 0.10       |            | 0.12        |             | 0.09        | 0.15        |



## Information in Support of the Analytical Results

*Our Ref* 22-17096 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | Date     |                            |  | Inappropriate |
|---------|--------------------------|----------|----------------------------|--|---------------|
| Lab No  | Sample ID                | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                        | tests         |
| 2052094 | F-BH120 4.10-4.50 SOIL   | 02/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052095 | F-BH120 4.83-5.20 SOIL   | 02/08/22 | PT 1L                      | Carbonate (28 days)                                    |               |
| 2052096 | F-BH120 6.80-6.90 SOIL   | 03/08/22 | PT 1L                      |  |               |
| 2052097 | F-BH120 7.50-7.60 SOIL   | 03/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052098 | F-BH120 9.60-9.70 SOIL   | 03/08/22 | PT 1L                      |  |               |
| 2052099 | F-BH120 12.40-12.50 SOIL | 03/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052100 | F-BH120 13.50-13.60 SOIL | 04/08/22 | PT 1L                      |  |               |
| 2052101 | F-BH120 14.00-15.00 SOIL | 04/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052102 | F-BH120 30.00-31.50 SOIL | 04/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |

Key: P-Plastic T-Tub

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#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued:

Certificate Number 22-17096

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-17096
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 9 Soil samples.
  - Date Received 31-Aug-22
  - Date Started 31-Aug-22
- Date Completed 06-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lyemood

Kirk Bridgewood General Manager



06-Sep-22



# Summary of Chemical Analysis

## **Soil Samples**

|                                 |             |       | Lab No    | 2052094    | 2052095    | 2052096    | 2052097    | 2052098    | 2052099     | 2052100     | 2052101     | 2052102     |
|---------------------------------|-------------|-------|-----------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|
|                                 |             | .Sa   | ample ID  | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120     | F-BH120     | F-BH120     | F-BH120     |
|                                 |             |       | Depth     | 4.10-4.50  | 4.83-5.20  | 6.80-6.90  | 7.50-7.60  | 9.60-9.70  | 12.40-12.50 | 13.50-13.60 | 14.00-15.00 | 30.00-31.50 |
|                                 |             |       | Other ID  |            |            |            |            |            |             |             |             |             |
|                                 |             | Sam   | ple Type  | В          | В          | D          | D          | D          | D           | D           | В           | C           |
|                                 |             | Samp  | ling Date | 02/08/2022 | 02/08/2022 | 03/08/2022 | 03/08/2022 | 03/08/2022 | 03/08/2022  | 04/08/2022  | 04/08/2022  | 04/08/2022  |
|                                 |             | Sampl | ing Time  | n/s        | n/s        | n/s        | n/s        | n/s        | n/s         | n/s         | n/s         | n/s         |
| Test                            | Method      | LOD   | Units     |            |            |            |            |            |             |             |             |             |
| Inorganics                      |             |       |           |            |            |            |            |            |             |             |             |             |
| рН                              | DETSC 2008# |       | рН        | 10.4       |            |            | 8.9        |            | 8.4         |             | 8.2         | 8.9         |
| Organic matter                  | DETSC 2002# | 0.1   | %         |            |            | 2.8        |            |            |             | 2.0         |             |             |
| Carbonate (as CO2)              | DETSC 2005  | 1     | %         |            | 2.5        |            |            | 4.9        |             |             |             |             |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l      | 820        |            |            | 290        |            | 430         |             | 230         | 370         |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %         | 0.29       |            |            | 0.09       |            | 0.15        |             | 0.10        | 0.69        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %         | 2.6        |            |            | 0.10       |            | 0.12        |             | 0.09        | 0.15        |



## Information in Support of the Analytical Results

*Our Ref* 22-17096 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | Date     |                            |  | Inappropriate |
|---------|--------------------------|----------|----------------------------|--|---------------|
| Lab No  | Sample ID                | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                        | tests         |
| 2052094 | F-BH120 4.10-4.50 SOIL   | 02/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052095 | F-BH120 4.83-5.20 SOIL   | 02/08/22 | PT 1L                      | Carbonate (28 days)                                    |               |
| 2052096 | F-BH120 6.80-6.90 SOIL   | 03/08/22 | PT 1L                      |  |               |
| 2052097 | F-BH120 7.50-7.60 SOIL   | 03/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052098 | F-BH120 9.60-9.70 SOIL   | 03/08/22 | PT 1L                      |  |               |
| 2052099 | F-BH120 12.40-12.50 SOIL | 03/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052100 | F-BH120 13.50-13.60 SOIL | 04/08/22 | PT 1L                      |  |               |
| 2052101 | F-BH120 14.00-15.00 SOIL | 04/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |
| 2052102 | F-BH120 30.00-31.50 SOIL | 04/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |               |

Key: P-Plastic T-Tub

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#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued:

06-Oct-22

*Certificate Number* 22-17176,22-18149

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-17176,22-18149
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 9 Soil samples.
  - Date Received 01-Sep-22
  - Date Started 01-Sep-22
- Date Completed 06-Oct-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lemood

Kirk Bridgewood General Manager





# Summary of Chemical Analysis

### **Soil Samples**

 Our Ref
 22-17176,22-18149

 Client Ref
 60678042

 Contract Title
 NZT Feed GI

|                                 |             |       | Lab No   | 2052473    | 2052474    | 2052475    | 2052476    | 2052477     | 2052478     | 2052479     | 2052882     | 2057766     |
|---------------------------------|-------------|-------|----------|------------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
|                                 |             | .Sa   | ample ID | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH125     | F-BH125     | F-BH125     | F-BH125     | F-BH125     |
|                                 |             |       | Depth    | 4.50-4.80  | 6.50-6.90  | 7.50-7.60  | 9.00-9.10  | 10.50-10.60 | 11.46-11.90 | 13.40-13.50 | 14.90-15.00 | 22.50-24.00 |
|                                 |             |       | Other ID |            |            |            |            |             |             |             |             |             |
|                                 |             | Sam   | ple Type | D          | В          | D          | D          | D           | В           | D           | D           | C           |
|                                 |             | Samp  | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 | 05/08/2022 | 05/08/2022  | 05/08/2022  | 05/08/2022  | 05/08/2022  | 12/09/2022  |
|                                 |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s         | n/s         | n/s         | n/s         | n/s         |
| Test                            | Method      | LOD   | Units    |            |            |            |            |             |             |             |             |             |
| Inorganics                      |             |       |          |            |            |            |            |             |             |             |             |             |
| рН                              | DETSC 2008# |       | pН       | 8.7        |            |            | 7.6        |             | 8.1         |             | 8.2         | 8.7         |
| Organic matter                  | DETSC 2002# | 0.1   | %        |            | 2.6        |            |            |             |             | 4.4         |             |             |
| Carbonate (as CO2)              | DETSC 2005  | 1     | %        |            |            | 5.2        |            | 7.9         |             |             |             |             |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l     | 420        |            |            | 1200       |             | 560         |             | 300         | 610         |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %        | 0.40       |            |            | 2.6        |             | 0.38        |             | 0.03        | 0.69        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %        | 0.34       |            |            | 0.52       |             | 0.19        |             | 0.06        | 2.8         |



## Information in Support of the Analytical Results

*Our Ref* 22-17176,22-18149 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | Date     |                            |  | Inappropriate<br>container for |
|---------|--------------------------|----------|----------------------------|--|--------------------------------|
| Lab No  | Sample ID                | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                        | tests                          |
| 2052473 | F-BH125 4.50-4.80 SOIL   | 04/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |                                |
| 2052474 | F-BH125 6.50-6.90 SOIL   | 04/08/22 | PT 1L                      |  |                                |
| 2052475 | F-BH125 7.50-7.60 SOIL   | 04/08/22 | PT 1L                      |  |                                |
| 2052476 | F-BH125 9.00-9.10 SOIL   | 05/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |                                |
| 2052477 | F-BH125 10.50-10.60 SOIL | 05/08/22 | PT 1L                      |  | -                              |
| 2052478 | F-BH125 11.46-11.90 SOIL | 05/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |                                |
| 2052479 | F-BH125 13.40-13.50 SOIL | 05/08/22 | PT 1L                      |  |                                |
| 2052882 | F-BH125 14.90-15.00 SOIL | 05/08/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |                                |
|         |                          |          |                            |  |                                |

#### Key: P-Plastic T-Tub

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#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report


Issued: 08-Sep-22

Certificate Number 22-17283 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-17283
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 6 Soil samples.
  - Date Received 02-Sep-22
  - Date Started 02-Sep-22
- Date Completed 08-Sep-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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Kirk Bridgewood General Manager





Issued:

Certificate Number 22-17734

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-17734
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 5 Soil samples.
  - Date Received 08-Sep-22
  - Date Started 08-Sep-22
- Date Completed 14-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

hurod

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk 14-Sep-22



|                                 |                   |       | Lab No    | 2055408    | 2055409    | 2055410    | 2055411    | 2055412    |
|---------------------------------|-------------------|-------|-----------|------------|------------|------------|------------|------------|
|                                 |                   | .Sa   | ample ID  | F-BH128    | F-BH128    | F-BH128    | F-BH128    | F-BH128    |
|                                 |                   |       | Depth     | 3.76-4.01  | 5.20-5.30  | 6.36-7.27  | 8.20-8.30  | 9.80-10.40 |
|                                 |                   |       | Other ID  |            |            |            |            |            |
|                                 |                   | Sam   | ple Type  | D          | D          | В          | D          | В          |
|                                 |                   | Samp  | ling Date | 01/09/2022 | 01/09/2022 | 01/09/2022 | 01/09/2022 | 01/09/2022 |
|                                 |                   | Sampl | ing Time  | 1200       | 1200       | 1200       | 1200       | 1200       |
| Test                            | Method            | LOD   | Units     |            |            |            |            |            |
| Inorganics                      |                   |       |           |            |            |            |            |            |
| рН                              | DETSC 2008#       |       | pН        | 9.9        |            |            |            |            |
| Organic matter                  | DETSC 2002#       | 0.1   | %         |            |            | 4.3        | 3.6        |            |
| Carbonate (as CO2)              | <b>DETSC 2005</b> | 1     | %         |            | 3.7        |            |            | 2.9        |
| Sulphate Aqueous Extract as SO4 | DETSC 2076#       | 10    | mg/l      | 15         |            |            |            |            |
| Sulphur as S, Total             | <b>DETSC 2320</b> | 0.01  | %         | 0.18       |            |            |            |            |
| Sulphate as SO4, Total          | DETSC 2321#       | 0.01  | %         | 0.16       |            |            |            |            |



.....

## Information in Support of the Analytical Results

*Our Ref* 22-17734 *Client Ref* 60678042 *Contract* NZT Feed GI

## **Containers Received & Deviating Samples**

|         |                         | Date     |                     | exceeded for | container for |
|---------|-------------------------|----------|---------------------|--------------|---------------|
| Lab No  | Sample ID               | Sampled  | Containers Received | tests        | tests         |
| 2055408 | F-BH128 3.76-4.01 SOIL  | 01/09/22 | PT 1L               |              |               |
| 2055409 | F-BH128 5.20-5.30 SOIL  | 01/09/22 | PT 1L               |              |               |
| 2055410 | F-BH128 6.36-7.27 SOIL  | 01/09/22 | PT 1L               |              |               |
| 2055411 | F-BH128 8.20-8.30 SOIL  | 01/09/22 | PT 1L               |              |               |
| 2055412 | F-BH128 9.80-10.40 SOIL | 01/09/22 | PT 1L               |              |               |
|         |                         |          |                     |              |               |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued:

20-Sep-22

Certificate Number 22-17882

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-17882
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - Description 2 Soil samples, 1 Leachate sample.
  - Date Received 09-Sep-22
- Date Started 09-Sep-22
- Date Completed 20-Sep-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk



| Lab No         2056242           .Sample ID         F-BH116         F-           Depth         4.90         0           Other ID         Sample Type         Es           Sampling Date         02/09/2022         02/           Sampling Time         1100         1           Test         Method         LOD         Units           Preparation           20           Metals           4400           Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9           Bervillium         DETSC 2301#         0.2         mg/kg          0.2 | 2056243<br>•BH116<br>5.90 |
|---|---------------------------|
| .Sample ID       F-BH116       F-         Depth       4.90       0         Other ID       0       0         Sample Type       ES       02/09/2022       02/         Sampling Date       02/09/2022       02/         Sampling Time       1100       1       100         Test       Method       LOD       Units         Preparation       0.1       %       20         Metals       0.1       %       20         Aluminium       DETSC 2301*       1       mg/kg       1400         Arsenic       DETSC 2301#       0.2       mg/kg       6.9         Bervillium       DETSC 2301#       0.2       mg/kg       <0.2                       | BH116<br>5.90             |
| Depth         4.90           Other ID         0           Sample Type         ES           Sampling Date         02/09/2022           Sampling Time         1100           Test         Method         LOD           Preparation         01         %           Moisture Content         DETSC 1004         0.1         %           Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9           Bervillium         DETSC 2301#         0.2         mg/kg         6.9   | 5.90                      |
| Other ID         Other ID           Sample Type         ES           Sampling Date         02/09/2022           Sampling Time         1100           Test         Method         LOD           Preparation         02/09/2022         02/09/2022           Moisture Content         DETSC 1004         0.1         %         20           Metals           400         400         400           Arsenic         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9   |                           |
| Sample Type         Es           Sampling Date         02/09/2022         02/           Sampling Time         1100         1100           Test         Method         LOD         Units           Preparation         Units         20           Metals         DETSC 1004         0.1         %         20           Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9           Bervilium         DETSC 2301#         0.2         mg/kg         6.9  |                           |
| Sampling Date         02/09/2022         02/           Sampling Time         02/09/2022         02/           Test         Method         LOD         Units           Preparation         Moisture Content         DETSC 1004         0.1         %         20           Metals         Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9         BervIlium  | ES                        |
| Sampling Time1100TestMethodLODUnitsPreparationUnitsOperationOperationMoisture ContentDETSC 10040.1%20MetalsOperation0.1%20AluminiumDETSC 2301*1mg/kg1400ArsenicDETSC 2301#0.2mg/kg6.9BervilliumDETSC 2301#0.2mg/kg< 0.2   | 09/2022                   |
| TestMethodLODUnitsPreparationMoisture ContentDETSC 10040.1%20MetalsAluminiumDETSC 2301*1mg/kg1400ArsenicDETSC 2301#0.2mg/kg6.9BervlliumDETSC 2301#0.2mg/kg< 0.2   | 1100                      |
| Preparation           Moisture Content         DETSC 1004         0.1         %         20           Metals         Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9           Bervllium         DETSC 2301#         0.2         mg/kg         6.9  |                           |
| Moisture Content         DETSC 1004         0.1         %         20           Metals         Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9         9           Bervllium         DETSC 2301#         0.2         mg/kg         6.9         1400   |                           |
| Metals           Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9           Bervllium         DETSC 2301#         0.2         mg/kg         6.9   | 14                        |
| Aluminium         DETSC 2301*         1         mg/kg         1400           Arsenic         DETSC 2301#         0.2         mg/kg         6.9           Beryllium         DETSC 2301#         0.2         mg/kg         6.9  |                           |
| ArsenicDETSC 2301#0.2mg/kg6.9BerylliumDETSC 2301#0.2mg/kg< 0.2  | 14000                     |
| Beryllium DFTSC 2301# 0.2 mg/kg < 0.2   | 23                        |
|   | 1.0                       |
| Boron, Water Soluble DETSC 2311# 0.2 mg/kg 0.4  | 1.5                       |
| Cadmium         DETSC 2301#         0.1         mg/kg         < 0.1   | 0.7                       |
| Chromium III DETSC 2301* 0.15 mg/kg 6.1   | 230                       |
| Chromium, Hexavalent DETSC 2204* 1 mg/kg < 1.0  | < 1.0                     |
| Copper DETSC 2301# 0.2 mg/kg 3.2  | 62                        |
| Iron DETSC 2301 25 mg/kg 7000 1   | 110000                    |
| Lead DETSC 2301# 0.3 mg/kg 22   | 23                        |
| Manganese DETSC 2301# 20 mg/kg 140  | 7600                      |
| Mercury DETSC 2325# 0.05 mg/kg < 0.05   | < 0.05                    |
| Molybdenum DETSC 2301# 0.4 mg/kg < 0.4  | 4.0                       |
| Nickel DETSC 2301# 1 mg/kg 2.8  | 28                        |
| Phosphorus DETSC 2301* 1 mg/kg 140  | 9000                      |
| Selenium DETSC 2301# 0.5 mg/kg < 0.5  | 2.3                       |
| Tin DETSC 2301 1 mg/kg < 1.0  | 3.1                       |
| Vanadium DETSC 2301# 0.8 mg/kg 10   | 1200                      |
| Zinc DETSC 2301# 1 mg/kg 17   | 120                       |
| Inorganics  |                           |
| pH DETSC 2008# pH 9.2   | 11.7                      |
| Cyanide, Total DETSC 2130# 0.1 mg/kg < 0.1  | 0.1                       |
| Cyanide, Free DETSC 2130# 0.1 mg/kg < 0.1   | < 0.1                     |
| Thiocyanate DETSC 2130# 0.6 mg/kg < 0.6   | 1.1                       |
| Organic matter DETSC 2002# 0.1 % 0.2  | 0.5                       |
| Ammoniacal Nitrogen as N DETSC 2119# 0.5 mg/kg 1.9  | 1.5                       |
| Chloride DETSC 2055 1 mg/kg 32.9  | 251                       |
| Fluoride DETSC 2055 1 mg/kg < 1.0   | 49                        |
| Nitrate as NO3 DETSC 2055 1 mg/kg < 1.0   | < 1.0                     |
| Ortho Phosphate as P DETSC 2205* 0.1 mg/kg < 0.10   | < 0.10                    |
| Sulphate Aqueous Extract as SO4 DETSC 2076# 10 mg/l 28  | 83                        |
| Sulphide         DETSC 2024*         10         mg/kg         20  | 360                       |
| Sulphur (free) DETSC 3049# 0.75 mg/kg < 0.75  | 18                        |
| Sulphur as S. Total         DETSC 2320         0.01         %         0.02  | 0.37                      |
| Sulphate as \$04. Total         DETSC 2321#         0.01         %         0.02   | 0.25                      |
| Petroleum Hydrocarbons  | 5.25                      |
| Aliphatic C5-C6: HS 1D AL DETSC 3321* 0.01 mg/kg < 0.01   | < 0.01                    |



|   | Lab No      | 2056242 | 2056243  |            |            |
|---|-------------|---------|----------|------------|------------|
| .Sample ID                                  |             |         |          |            | F-BH116    |
|   |             |         | Depth    | 4.90       | 5.90       |
|   |             |         | Other ID |            |            |
|   |             | Sam     | ple Type | ES         | ES         |
|   |             | Sampl   | ing Date | 02/09/2022 | 02/09/2022 |
|   |             | Sampl   | ing Time | 1100       | 1100       |
| Test  | Method      | LOD     | Units    |            |            |
| Aliphatic C6-C8: HS_1D_AL                   | DETSC 3321* | 0.01    | mg/kg    | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL                  | DETSC 3321* | 0.01    | mg/kg    | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL              | DETSC 3521# | 1.5     | mg/kg    | < 1.50     | < 1.50     |
| Aliphatic >EC12-EC16: EH_2D_AL              | DETSC 3521# | 1.2     | mg/kg    | < 1.20     | < 1.20     |
| Aliphatic >EC16-EC21: EH_2D_AL              | DETSC 3521# | 1.5     | mg/kg    | < 1.50     | < 1.50     |
| Aliphatic >EC21-EC35: EH_2D_AL              | DETSC 3521# | 3.4     | mg/kg    | < 3.40     | 28.79      |
| Aliphatic >EC35-EC40: EH_2D_AL              | DETSC 3521# | 3.4     | mg/kg    | < 3.40     | < 3.40     |
| Aliphatic C5-C35: EH_2D+HS_1D_AL            | DETSC 3521* | 10      | mg/kg    | < 10.00    |            |
| Aliphatic C5-C40: EH_2D+HS_1D_AL            | DETSC 3521* | 10      | mg/kg    | 13.78      | 37.72      |
| Aromatic C5-C7: HS_1D_AR                    | DETSC 3321* | 0.01    | mg/kg    | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3321* | 0.01    | mg/kg    | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR                   | DETSC 3321* | 0.01    | mg/kg    | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR               | DETSC 3521# | 0.9     | mg/kg    | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR               | DETSC 3521# | 0.5     | mg/kg    | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH 2D AR               | DETSC 3521# | 0.6     | mg/kg    | 1.40       | < 0.60     |
| Aromatic >EC21-EC35: EH 2D AR               | DETSC 3521# | 1.4     | mg/kg    | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH 2D AR               | DETSC 3521* | 1.4     | mg/kg    | < 1.40     | < 1.40     |
| Aromatic C5-C35: EH 2D+HS 1D AR             | DETSC 3521* | 10      | mg/kg    | < 10.00    |            |
| Aromatic C5-C40: EH_2D+HS_1D_AR             | DETSC 3521* | 10      | mg/kg    | < 10.00    | < 10.00    |
|   |             |         | 2. 0     |            |            |
| TPH Ali/Aro Total C5-C35: EH_2D+HS_1D_Total | DETSC 3521* | 10      | mg/kg    | 14.47      |            |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total       | DETSC 3521* | 10      | mg/kg    | 20.47      | 43.36      |
| PAHs  |             |         |          |            |            |
| Acenaphthene                                | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Acenaphthylene                              | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Anthracene                                  | DETSC 3303  | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)anthracene                          | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Benzo(a)pyrene                              | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                        | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                        | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                        | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Chrysene                                    | DETSC 3303  | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene                      | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Fluoranthene                                | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | 0.03       |
| Fluorene                                    | DETSC 3303  | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene                     | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| Naphthalene                                 | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | 0.14       |
| Phenanthrene                                | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | 0.08       |
| Pyrene                                      | DETSC 3303# | 0.03    | mg/kg    | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total                       | DETSC 3303  | 0.1     | mg/kg    | < 0.10     | 0.22       |



| Lab No                 |             |       |          |            | 2056243    |
|------------------------|-------------|-------|----------|------------|------------|
|                        |             | .Sa   | ample ID | F-BH116    | F-BH116    |
|                        |             |       | Depth    | 4.90       | 5.90       |
|                        |             |       | Other ID |            |            |
|                        |             | Sam   | ple Type | ES         | ES         |
|                        |             | Sampl | ing Date | 02/09/2022 | 02/09/2022 |
|                        |             | Sampl | ing Time | 1100       | 1100       |
| Test                   | Method      | LOD   | Units    |            |            |
| PCBs                   |             |       |          |            |            |
| PCB 28 + PCB 31        | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 52                 | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 101                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 118                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 153                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 138                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| PCB 180                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| РСВ 77                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 81                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 105                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 114                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 118                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 123                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 126                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 156                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 157                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 167                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 169                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 189                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |
| PCB 7 Total            | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |
| Phenols                |             |       |          |            |            |
| Phenol - Monohydric    | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      |
| Subcontracted Analysis |             |       |          |            |            |
| Benzene                | \$*         | <2    | ug/kg    | <2         | <2         |
| Toluene                | \$*         | <5    | ug/kg    | <5         | 31         |
| Ethylbenzene           | \$*         | <2    | ug/kg    | <2         | <2         |
| p & m-xylene           | \$*         | <2    | ug/kg    | <2         | 19         |
| o-xylene               | \$*         | <2    | ug/kg    | <2         | <2         |
| MTBE                   | \$*         | <5    | ug/kg    | <5         | <5         |
| ТАМЕ                   | \$*         | < 5   | ug/kg    | < 5        | <5         |



## **Leachate Samples**

|                            | Lab No      |        |                     | 2056244                  |  |
|----------------------------|-------------|--------|---------------------|--------------------------|--|
|                            | .Sample ID  |        |                     |                          |  |
|                            | 4.90        |        |                     |                          |  |
|                            |             | (      | Other ID            |                          |  |
|                            |             | Sam    | ple Type            | ES                       |  |
|                            |             | Sampl  | ing Date            | 02/09/2022               |  |
|                            |             | Sampli | ing Time            | 1100                     |  |
| Test                       | Method      | LOD    | Units               |                          |  |
| Preparation                |             |        |                     |                          |  |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |        |                     | Y                        |  |
| Metals                     |             |        |                     |                          |  |
| Aluminium, Dissolved       | DETSC 2306  | 10     | ug/l                | 130                      |  |
| Arsenic, Dissolved         | DETSC 2306  | 0.16   | ug/l                | 7.8                      |  |
| Beryllium, Dissolved       | DETSC 2306* | 0.1    | ug/l                | < 0.1                    |  |
| Boron, Dissolved           | DETSC 2306* | 12     | ug/l                | 21                       |  |
| Cadmium, Dissolved         | DETSC 2306  | 0.03   | ug/l                | 0.05                     |  |
| Chromium III, Dissolved    | DETSC 2306* | 1      | ug/l                | < 1.0                    |  |
| Chromium, Hexavalent       | DETSC 2203  | 0.007  | mg/l                | < 0.007                  |  |
| Copper, Dissolved          | DETSC 2306  | 0.4    | ug/l                | 3.5                      |  |
| Iron, Dissolved            | DETSC 2306  | 5.5    | ug/l                | 350                      |  |
| Lead. Dissolved            | DETSC 2306  | 0.09   | ug/l                | 5.7                      |  |
| Manganese. Dissolved       | DETSC 2306  | 0.22   | ug/l                | 6.3                      |  |
| Mercury, Dissolved         | DETSC 2306  | 0.01   | ug/l                | 0.01                     |  |
| Molybdenum. Dissolved      | DETSC 2306  | 1.1    | ug/l                | 3.7                      |  |
| Nickel, Dissolved          | DETSC 2306  | 0.5    | ug/l                | < 0.5                    |  |
| Phosphorus as P. Dissolved | DETSC 2306  | 18     | ug/l                | 150                      |  |
| Selenium, Dissolved        | DETSC 2306  | 0.25   | ug/l                | 1.2                      |  |
| Tin Dissolved              | DFTSC 2306* | 0.4    | . (ع.د<br>ا/عرا     | < 0.4                    |  |
| Vanadium Dissolved         | DETSC 2306  | 0.6    |                     | 4.6                      |  |
| Zinc Dissolved             | DETSC 2306  | 13     | رونی<br>ارونا       | 4 7                      |  |
|                            | 22130 2300  | 1.0    | 46/ ·               | ,                        |  |
| nH                         | DFTSC 2008  |        | nH                  | 73                       |  |
| Cvanide Total Low Level    | DETSC 2000  | 0.1    | بر<br>ا/ت           | < 0.1                    |  |
| Cvanide, Free Low Level    | DETSC 2131  | 0.1    | 110/l               | < 0.1                    |  |
| Thiocyanate                | DETSC 2131  | 20     | ر <u>هم</u><br>ارهم | 280                      |  |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1    | mg/l                | 200                      |  |
| Ammoniacal Nitrogen as NH4 | DETSC 2303  | 0.015  | mg/l                | 1 4                      |  |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015  | mg/l                | 1.4                      |  |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015  | mg/l                | 1.4                      |  |
| Chloride                   | DETSC 2207  | 0.013  | mg/l                | <u> </u>                 |  |
| Eluoride                   | DETSC 2055* | 0.1    | mg/l                | 0.16                     |  |
| Nitrate as NO3             | DETSC 2055  | 0.1    | mg/l                | 0.10                     |  |
| Nitrite as NO3             | DETSC 2055  | 0.1    | mg/l                | < 0.10                   |  |
| Ortho Phosphate as P       |             | 0.1    | ma/l                | 0.10                     |  |
| Sulphate as SOA            |             | 0.01   | ma/l                | 11                       |  |
| Total Organic Carbon       | DETSC 2005  | 0.1    | ma/l                | 14<br>1 0                |  |
|                            | DE13C 2085  | L T    | ilig/1              | 4.0                      |  |
| Aliphatic (5-C6. HS 1D Al  | DETCC 2222  | 0.1    |                     | < 0.1                    |  |
|                            |             | 0.1    | ug/1                | <ul><li>\ ∪, ⊥</li></ul> |  |



## **Leachate Samples**

|   |             | Lab No |          |            |
|---|-------------|--------|----------|------------|
|   |             | .Sa    | ample ID | F-BH116    |
|   |             |        | Depth    | 4.90       |
|   |             |        | Other ID |            |
|   |             | Sam    | ple Type | ES         |
|   |             | Sampl  | ing Date | 02/09/2022 |
|   |             | Sampl  | ing Time | 1100       |
| Test  | Method      | LOD    | Units    |            |
| Aliphatic C6-C8: HS_1D_AL                   | DETSC 3322  | 0.1    | ug/l     | 20         |
| Aliphatic C8-C10: HS_1D_AL                  | DETSC 3322  | 0.1    | ug/l     | < 0.1      |
| Aliphatic C10-C12: EH_CU_1D_AL              | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aliphatic C12-C16: EH_CU_1D_AL              | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aliphatic C16-C21: EH_CU_1D_AL              | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aliphatic C21-C35: EH_CU_1D_AL              | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aliphatic C5-C35: EH_CU+HS_1D_AL            | DETSC 3072* | 10     | ug/l     | 20         |
| Aromatic C5-C7: HS_1D_AR                    | DETSC 3322  | 0.1    | ug/l     | < 0.1      |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3322  | 0.1    | ug/l     | < 0.1      |
| Aromatic C8-C10: HS_1D_AR                   | DETSC 3322  | 0.1    | ug/l     | < 0.1      |
| Aromatic C10-C12: EH_CU_1D_AR               | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aromatic C12-C16: EH_CU_1D_AR               | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aromatic C16-C21: EH_CU_1D_AR               | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aromatic C21-C35: EH_CU_1D_AR               | DETSC 3072* | 1      | ug/l     | < 1.0      |
| Aromatic C5-C35: EH_CU+HS_1D_AR             | DETSC 3072* | 10     | ug/l     | < 10       |
|   |             |        |          |            |
| TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total | DETSC 3072* | 10     | ug/l     | 21         |
| Benzene                                     | DETSC 3322  | 1      | ug/l     | < 1.0      |
| Toluene                                     | DETSC 3322  | 1      | ug/l     | < 1.0      |
| Ethylbenzene                                | DETSC 3322  | 1      | ug/I     | < 1.0      |
| Xylene                                      | DETSC 3322  | 1      | ug/I     | < 1.0      |
| PAHs  |             | 0.01   | /1       | . 0. 01    |
| Acenaphthene                                | DETSC 3304  | 0.01   | ug/i     | < 0.01     |
| Acenaphthylene                              | DETSC 3304  | 0.01   | ug/I     | < 0.01     |
| Anthracene                                  | DETSC 3304  | 0.01   | ug/i     | < 0.01     |
| Benzo(a)anthracene                          | DETSC 3304* | 0.01   | ug/I     | < 0.01     |
| Benzo(a)pyrene                              | DETSC 3304  | 0.01   | ug/I     | < 0.01     |
| Benzo(b)fluoranthene                        | DETSC 3304  | 0.01   | ug/I     | < 0.01     |
| Benzo(g,h,i)perylene                        | DETSC 3304  | 0.01   | ug/I     | < 0.01     |
| Benzo(k)fluoranthene                        | DETSC 3304  | 0.01   | ug/I     | < 0.01     |
| Chrysene                                    | DETSC 3304  | 0.01   | ug/l     | < 0.01     |
| Dibenzo(a,h)anthracene                      | DETSC 3304  | 0.01   | ug/l     | < 0.01     |
| Fluoranthene                                | DETSC 3304  | 0.01   | ug/l     | 0.01       |
| Fluorene                                    | DETSC 3304  | 0.01   | ug/l     | < 0.01     |
| Indeno(1,2,3-c,d)pyrene                     | DETSC 3304  | 0.01   | ug/l     | < 0.01     |
| Naphthalene                                 | DETSC 3304  | 0.05   | ug/l     | < 0.05     |
| Phenanthrene                                | DETSC 3304  | 0.01   | ug/l     | 0.02       |
| Pyrene                                      | DETSC 3304  | 0.01   | ug/l     | < 0.01     |
| PAH Total                                   | DETSC 3304  | 0.2    | ug/l     | < 0.20     |



## **Leachate Samples**

| Lab No                  |             |        |          |            |
|-------------------------|-------------|--------|----------|------------|
|                         |             | .Sa    | mple ID  | F-BH116    |
|                         |             |        | Depth    | 4.90       |
|                         |             | (      | Other ID |            |
|                         |             | Sam    | ple Type | ES         |
|                         |             | Sampl  | ing Date | 02/09/2022 |
|                         |             | Sampli | ing Time | 1100       |
| Test                    | Method      | LOD    | Units    |            |
| PCBs                    |             |        |          |            |
| PCB 28 + PCB 31         | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 52                  | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 77                  | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 81                  | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 101                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 105                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 114                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 118 + PCB 123       | DETSC 3402  | 0.6    | ug/l     | < 0.6      |
| PCB 126                 | DETSC 3402  | 0.5    | ug/l     | < 0.5      |
| PCB 138                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 153                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 156                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 157                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 167                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 169                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 180                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 189                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 12                  | DETSC 3402  | 1      | ug/l     | < 1.0      |
| PCB 7 Total             | DETSC 3402  | 1      | ug/l     | < 1.0      |
| Phenols                 |             |        |          |            |
| Phenol                  | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| p-cresol                | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.1    | ug/l     | < 0.10     |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst      |
|---|--------------|---------------|--------|----------|--------------|
| 2056242   | F-BH116 4.90 | SOIL          | NAD    | none     | Pierce Booth |
| Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos.<br>Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos<br>Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: *<br>not included in laboratory scope of accreditation. |              |               |        |          |              |



Inappropriate

## Information in Support of the Analytical Results

Our Ref 22-17882 Client Ref 60678042 Contract NZT Feed GI

## **Containers Received & Deviating Samples**

|             |                         | Date     |                            |                                 | container for |
|-------------|-------------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No      | Sample ID               | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2056242     | F-BH116 4.90 SOIL       | 02/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2056243     | F-BH116 5.90 SOIL       | 02/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2056244     | F-BH116 4.90 LEACHATE   | 02/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| Key: G-Glas | s P-Plastic J-Jar T-Tub |          |                            |                                 |               |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



# Information in Support of the Analytical Results

|        | <i>,</i> .  |
|--------|---|
| cronym | Description   |
| HS     | Headspace analysis  |
| EH     | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU     | Clean-up - e.g. by florisil, silica gel                             |
| 1D     | GC - Single coil gas chromatography                                 |
| 2D     | GC-GC - Double coil gas chromatography                              |
| Total  | Aliphatics & Aromatics  |
| AL     | Aliphatics only   |
| AR     | Aromatics only  |
| #1     | EH_2D_Total but with humics mathematically subtracted               |
| #2     | EH_2D_Total but with fatty acids mathematically subtracted          |
| _      | Operator - underscore to separate acronyms (exception for +)        |
| +      | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |

### List of HWOL Acronyms and Operators

## Det

| Det                      | Acronym           |
|--------------------------|-------------------|
| Aliphatic C5-C6          | HS_1D_AL          |
| Aliphatic C6-C8          | HS_1D_AL          |
| Aliphatic C8-C10         | HS_1D_AL          |
| Aliphatic >EC10-EC12     | EH_2D_AL          |
| Aliphatic >EC12-EC16     | EH_2D_AL          |
| Aliphatic >EC16-EC21     | EH_2D_AL          |
| Aliphatic >EC21-EC35     | EH_2D_AL          |
| Aliphatic >EC35-EC40     | EH_2D_AL          |
| Aliphatic C5-C35         | EH_2D+HS_1D_AL    |
| Aliphatic C5-C40         | EH_2D+HS_1D_AL    |
| Aromatic C5-C7           | HS_1D_AR          |
| Aromatic C7-C8           | HS_1D_AR          |
| Aromatic C8-C10          | HS_1D_AR          |
| Aromatic >EC10-EC12      | EH_2D_AR          |
| Aromatic >EC12-EC16      | EH_2D_AR          |
| Aromatic >EC16-EC21      | EH_2D_AR          |
| Aromatic >EC21-EC35      | EH_2D_AR          |
| Aromatic >EC35-EC40      | EH_2D_AR          |
| Aromatic C5-C35          | EH_2D+HS_1D_AR    |
| Aromatic C5-C40          | EH_2D+HS_1D_AR    |
| TPH Ali/Aro Total C5-C35 | EH_2D+HS_1D_Total |
| TPH Ali/Aro C5-C40       | EH_2D+HS_1D_Total |
| Aliphatic C10-C12        | EH_CU_1D_AL       |
| Aliphatic C12-C16        | EH_CU_1D_AL       |
| Aliphatic C16-C21        | EH_CU_1D_AL       |
| Aliphatic C21-C35        | EH_CU_1D_AL       |



Issued: 16-Sep-22

Certificate Number 22-17885 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-17885
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description One Soil sample.
  - Date Received 09-Sep-22
  - Date Started 09-Sep-22
- Date Completed 16-Sep-22
- *Test Procedures* Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

emood

Kirk Bridgewood General Manager





|                                 |             |        | Lab No                     | 2056247    |
|---------------------------------|-------------|--------|----------------------------|------------|
|                                 |             | .Sa    | ample ID                   | F-BH116    |
|                                 |             |        | Depth                      | 14.00      |
|                                 |             | (      | Other ID                   |            |
|                                 |             | Sam    | ple Type                   | ES         |
|                                 |             | Sampl  | ing Date                   | 05/09/2022 |
|                                 |             | Sampli | ing Time                   | 1600       |
| Test                            | Method      | LOD    | Units                      |            |
| Preparation                     |             |        |                            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %                          | 22         |
| Metals                          |             |        |                            |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg                      | 10000      |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg                      | 14         |
| Bervllium                       | DETSC 2301# | 0.2    | mg/kg                      | 0.6        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg                      | 6.9        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg                      | 0.1        |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg                      | 23         |
| Chromium. Hexavalent            | DFTSC 2204* | 1      | mg/kg                      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg                      | 16         |
| Iron                            | DETSC 2301  | 25     | mg/kg                      | 32000      |
| Lead                            | DFTSC 2301# | 0.3    | mg/kg                      | 14         |
| Manganese                       | DETSC 2301# | 20     | mg/kg                      | 390        |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg                      | < 0.05     |
| Molybdenum                      | DFTSC 2301# | 0.4    | mg/kg                      | 1.9        |
| Nickel                          | DETSC 2301# | 1      | mg/kg                      | 22         |
| Phosphorus                      | DETSC 2301* | - 1    | mg/kg                      | 380        |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg                      | < 0.5      |
| Tin                             | DETSC 2301  | 1      | mg/kg                      | < 1.0      |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg                      | 40         |
| Zinc                            | DETSC 2301# | 1      | mg/kg                      | 53         |
| Inorganics                      |             |        | 0, 0                       |            |
| На                              | DETSC 2008# |        | Ha                         | 8.3        |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg                      | < 0.1      |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg                      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg                      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %                          | 3.3        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg                      | 3.1        |
| Chloride                        | DETSC 2055  | 1      | mg/kg                      | 683        |
| Fluoride                        | DETSC 2055  | 1      | mg/kg                      | < 1.0      |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg                      | 4.0        |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg                      | < 0.10     |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l                       | 570        |
| Sulphide                        | DETSC 2024* | 10     | mg/kg                      | 110        |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg                      | < 0.75     |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %                          | 0.69       |
| Sulphate as SO4. Total          | DETSC 2321# | 0.01   | %                          | 0.21       |
| Petroleum Hydrocarbons          |             | 0.01   | , 0                        | 0.21       |
| Aliphatic C5-C6: HS_1D_AI       | DFTSC 3321* | 0.01   | mg/kg                      | < 0.01     |
| Aliphatic C6-C8: HS 1D Al       | DFTSC 3321* | 0.01   | 8 <sup>2</sup> /8<br>mg/kg | < 0.01     |
| Aliphatic $(8, C10; HS, 10; A)$ | DETSC 3321  | 0.01   | mg/kg                      | < 0.01     |
| Aliphatic Co-CIO, FO_ID_AL      |             | 0.01   | mg/Kg                      | < 1.FC     |
| Aliphatic >EC10-EC12: EH_2D_AL  | DEISC 3521# | 1.5    | mg/kg                      | < 1.50     |



|                                       |             |        | 2056247  |            |
|---------------------------------------|-------------|--------|----------|------------|
|                                       |             | .Sa    | mple ID  | F-BH116    |
|                                       |             |        | Depth    | 14.00      |
|                                       |             | (      | Other ID |            |
|                                       |             | Sam    | ole Type | ES         |
|                                       |             | Sampli | ing Date | 05/09/2022 |
|                                       |             | Sampli | ng Time  | 1600       |
| Test                                  | Method      | LOD    | Units    |            |
| Aliphatic >EC12-EC16: EH_2D_AL        | DETSC 3521# | 1.2    | mg/kg    | < 1.20     |
| Aliphatic >EC16-EC21: EH_2D_AL        | DETSC 3521# | 1.5    | mg/kg    | < 1.50     |
| Aliphatic >EC21-EC35: EH_2D_AL        | DETSC 3521# | 3.4    | mg/kg    | < 3.40     |
| Aliphatic >EC35-EC40: EH_2D_AL        | DETSC 3521# | 3.4    | mg/kg    | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS_1D_AL      | DETSC 3521* | 10     | mg/kg    | 14.15      |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9    | mg/kg    | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5    | mg/kg    | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6    | mg/kg    | < 0.60     |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4    | mg/kg    | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4    | mg/kg    | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10     | mg/kg    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10     | mg/kg    | 20.34      |
| PAHs                                  |             |        |          |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg    | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg    | < 0.10     |
| Phenols                               |             |        |          |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3    | mg/kg    | < 0.3      |



inannronriate

## Information in Support of the Analytical Results

Our Ref 22-17885 Client Ref 60678042 Contract NZT Feed GI

## **Containers Received & Deviating Samples**

|               |                              | Date     |                            |                                 | container for |
|---------------|------------------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No        | Sample ID                    | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2056247       | F-BH116 14.00 SOIL           | 05/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| Kaun C. Class | - D. Dia etta I. Jan T. Tula |          |                            |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



# Information in Support of the Analytical Results

## List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

## Det

| Aliphatic C5-C6     | HS_1D_AL          |
|---------------------|-------------------|
| Aliphatic C6-C8     | HS_1D_AL          |
| Aliphatic C8-C10    | HS_1D_AL          |
| Aliphatic >EC10-EC1 | 2 EH_2D_AL        |
| Aliphatic >EC12-EC1 | 6 EH_2D_AL        |
| Aliphatic >EC16-EC2 | 1 EH_2D_AL        |
| Aliphatic >EC21-EC3 | 5 EH_2D_AL        |
| Aliphatic >EC35-EC4 | 0 EH_2D_AL        |
| Aliphatic C5-C40    | EH_2D+HS_1D_AL    |
| Aromatic C5-C7      | HS_1D_AR          |
| Aromatic C7-C8      | HS_1D_AR          |
| Aromatic C8-C10     | HS_1D_AR          |
| Aromatic >EC10-EC1  | 2 EH_2D_AR        |
| Aromatic >EC12-EC1  | 6 EH_2D_AR        |
| Aromatic >EC16-EC2  | 1 EH_2D_AR        |
| Aromatic >EC21-EC3  | 5 EH_2D_AR        |
| Aromatic >EC35-EC4  | 0 EH_2D_AR        |
| Aromatic C5-C40     | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40  | EH_2D+HS_1D_Total |

## End of Report



Issued:

23-Sep-22

Certificate Number 22-17948

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-17948
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description One Soil sample.
  - Date Received 12-Sep-22
  - Date Started 12-Sep-22
- Date Completed 23-Sep-22

*Test Procedures* Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logmood

Kirk Bridgewood General Manager





| Sample ID<br>Depth         F-BH116<br>Depth           CH         Depth         20.55<br>CH           CH         CH         CH           Sample Type         ES           Sampling Time         0.609/2022<br>Sampling Time         0.609/2022<br>(nd/02/202)           Test         Method         LDD         Units           Preparation   |                                  |             |        | 2056602  |            |
|--|----------------------------------|-------------|--------|----------|------------|
| Depth         20.55           Other ID         5ampling Date           Sampling Time         66/09/2022           Sampling Time         n/s           Test         Method         LOD         Units           Preparation         0.1         %         10           Metsure Content         DETSC 2301#         0.2         mg/kg         7.1           Beryllium         DETSC 2301#         0.2         mg/kg         7.4           Boron, Water Soluble         DETSC 2301#         0.2         mg/kg         7.4           Cadmium         DETSC 2301#         0.1         mg/kg         7.4           Copper         DETSC 2301#         0.1         mg/kg         0.1           Copper         DETSC 2301#         0.2         mg/kg         0.1           Mercury         DETSC 2301#         0.2         mg/kg         0.1           Mercury         DETSC 2301#         0.3         mg/kg         0.2           Vanadium         DETSC 2301#         0.3         mg/kg         0.5           Vanadium         DETSC 2301#         0.8         mg/kg         0.5           Vanadium         DETSC 2301#         0.8         mg/kg         0.1     <   |                                  |             | .Sa    | F-BH116  |            |
| Test         Method         LOD         Units           Preparation         05/09/2022         Sampling Tate         06/09/2022           Test         Method         LOD         Units           Preparation         0.1         %         10           Motsture Content         DETSC 1004         0.1         %         10           Metals           2         mg/kg         7.1           Beryllium         DETSC 2301#         0.2         mg/kg         7.4           Cadmium         DETSC 2301#         0.1         mg/kg         0.1           Chromium, Hexavalent         DETSC 2301#         0.1         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         31           Mercury         DETSC 2301#         0.3         mg/kg         33           Selenium         DETSC 2301#         1         mg/kg         33           Zinc         DETSC 2301#         0.5         mg/kg         39           Zinc         DETSC 2301#         0.1         mg/kg         42           Inorganics            1         mg/kg         40.1   |                                  |             |        | Depth    | 20.55      |
| Sample Type<br>Sampling Date<br>Sampling Time<br>Sampling Time<br>(n)         Ess<br>(6)           Test         Method         LOD         Units           Preparation         Image: Content         DETSC 1004         0.1         %         100           Metals         Image: Content         DETSC 2301#         0.2         mg/kg         7.1           Beryllium         DETSC 2301#         0.2         mg/kg         7.1           Boron, Water Soluble         DETSC 2301#         0.2         mg/kg         7.4           Cadmium         DETSC 2301#         0.1         mg/kg         0.1           Ohronium III         DETSC 2301#         0.1         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.3         mg/kg         41.00           Mercury         DETSC 2301#         0.3         mg/kg         40.00           Nickel         DETSC 2301#         0.5         mg/kg         40.00           Jand         DETSC 2301#         0.5         mg/kg         40.00           Grandium         DETSC 2301#         0.8         mg/kg         40.00           Jand         DETSC 2301#         0.1         mg/kg         40.00           Grandium         DETSC 2301#<                                   |                                  |             | (      | Other ID |            |
| Sampling Time         06/09/2022<br>Sampling Time           Test         Method         LOD         Units           Preparation         DETSC 1004         0.1         %         10           Metals   |                                  |             | Sam    | ple Type | ES         |
| Test         Method         LOD         Units           Preparation         Moisture Content         DETSC 1004         0.1         %         10           Metals         Arsenic         DETSC 2301#         0.2         mg/kg         7.1           Beryllium         DETSC 2301#         0.2         mg/kg         7.1           Beryllium         DETSC 2301#         0.1         mg/kg         7.4           Cadmium         DETSC 2301#         0.1         mg/kg         0.1           Chromium, Hexavalent         DETSC 2301#         0.1         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         4.0           Copper         DETSC 2301#         0.3         mg/kg         4.0           Mercury         DETSC 2301#         0.5         mg/kg         4.0           Vanadium         DETSC 2301#         1         mg/kg         3.3           Selenium         DETSC 2301#         0.1         mg/kg         4.0           Inorganics         pH         DETSC 2301#         0.1         mg/kg         4.0           Index Free         DETSC 230#         0.1         mg/kg         4.0           Sulphate </td <td></td> <td></td> <td>Sampl</td> <td>ing Date</td> <td>06/09/2022</td> |                                  |             | Sampl  | ing Date | 06/09/2022 |
| Test         Method         LOD         Units           Preparation  |                                  |             | Sampli | ing Time | n/s        |
| Preparation           Moisture Content         DETSC 1004         0.1         %         10           Metals  | Test                             | Method      | LOD    | Units    |            |
| Moisture Content         DETSC 1004         0.1         %         10           Metals  | Preparation                      |             |        |          |            |
| Metals         DETSC 2301#         0.2         mg/kg         7.1           Beryllium         DETSC 2301#         0.2         mg/kg         1.0           Boron, Water Soluble         DETSC 2301#         0.2         mg/kg         7.4           Cadmium         DETSC 2301#         0.1         mg/kg         0.1           Chromium, Hexavalent         DETSC 2301#         0.1         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.3         mg/kg         43           Mercury         DETSC 2301#         0.3         mg/kg         43.3           Selenium         DETSC 2301#         0.5         mg/kg         43.3           Selenium         DETSC 2301#         0.8         mg/kg         33           Selenium         DETSC 2301#         0.8         mg/kg         42           Inorganics         pH         7.7         Gyanide, Total         DETSC 2008#         pH         7.7           Cyanide, Total         DETSC 2130#         0.1         mg/kg         <0.1   | Moisture Content                 | DETSC 1004  | 0.1    | %        | 10         |
| ArsenicDETSC 2301#0.2 $mg/kg$ 7.1BerylliumDETSC 2301#0.2 $mg/kg$ 1.0Boron, Water SolubleDETSC 2301#0.1 $mg/kg$ 0.1CadmiumDETSC 2301#0.1 $mg/kg$ 0.1Chromium IIIDETSC 2301#0.15 $mg/kg$ 31Chromium, HexavalentDETSC 2301#0.2 $mg/kg$ 25LeadDETSC 2301#0.3 $mg/kg$ 40.0NickelDETSC 2301#0.3 $mg/kg$ 33SeleniumDETSC 2301#1 $mg/kg$ 33SeleniumDETSC 2301#0.5 $mg/kg$ 39ZincDETSC 2301#0.8 $mg/kg$ 39ZincDETSC 2301#1 $mg/kg$ 42Inorganics   | Metals                           |             |        |          |            |
| Beryllium         DETSC 2301#         0.2         mg/kg         1.0           Boron, Water Soluble         DETSC 2311#         0.2         mg/kg         7.4           Cadmium         DETSC 2301#         0.1         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         13           Mercury         DETSC 2301#         0.3         mg/kg         13           Mercury         DETSC 2301#         0.5         mg/kg         <0.5  | Arsenic                          | DETSC 2301# | 0.2    | mg/kg    | 7.1        |
| Boron, Water Soluble         DETSC 2311#         0.2 $mg/kg$ 7.4           Cadmium         DETSC 2301#         0.1 $mg/kg$ 0.1           Chromium, Hexavalent         DETSC 2301*         0.15 $mg/kg$ 31           Chromium, Hexavalent         DETSC 2301#         0.2 $mg/kg$ 1.0           Copper         DETSC 2301#         0.3 $mg/kg$ 1.3           Mercury         DETSC 2301#         0.3 $mg/kg$ 33           Selenium         DETSC 2301#         1 $mg/kg$ 33           Selenium         DETSC 2301#         0.5 $mg/kg$ 30           Zinc         DETSC 2301#         0.8 $mg/kg$ 42           Inorganics         pH         7.7         Cyanide, Total         DETSC 2008#         pH         7.7           Cyanide, Total         DETSC 2130#         0.1 $mg/kg$ <0.1   | Beryllium                        | DETSC 2301# | 0.2    | mg/kg    | 1.0        |
| Cadmium         DETSC 2301#         0.1         mg/kg         0.1           Chromium III         DETSC 2301*         0.15         mg/kg         31           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         25           Lead         DETSC 2301#         0.3         mg/kg         13           Mercury         DETSC 2301#         0.3         mg/kg         33           Selenium         DETSC 2301#         0.5         mg/kg         33           Selenium         DETSC 2301#         0.5         mg/kg         42           Inorganics         DETSC 2301#         0.8         mg/kg         42           Inorganics          DETSC 2130#         0.1         mg/kg         <0.1   | Boron, Water Soluble             | DETSC 2311# | 0.2    | mg/kg    | 7.4        |
| Chromium III         DETSC 2301* $0.15$ $mg/kg$ $31$ Chromium, Hexavalent         DETSC 2204*         1 $mg/kg$ $25$ Lead         DETSC 2301# $0.2$ $mg/kg$ $25$ Lead         DETSC 2301# $0.3$ $mg/kg$ $25$ Nercury         DETSC 2301# $0.3$ $mg/kg$ $33$ Selenium         DETSC 2301# $1$ $mg/kg$ $33$ Selenium         DETSC 2301# $0.8$ $mg/kg$ $39$ Zinc         DETSC 2301# $0.8$ $mg/kg$ $42$ Inorganics         pH         DETSC 2100# $0.1$ $mg/kg$ $<0.1$ Cyanide, Total         DETSC 2100# $0.1$ $mg/kg$ $<0.1$ Thiocyanate $0.6$ $mg/kg$ $<0.1$ Cyanide, Free         DETSC 2002# $0.1$ $mg/kg$ $<0.1$ $mg/kg$ $<0.1$ Sulphate Aqueous Extract as SO4         DETSC 2002# $0.1$ $mg/kg$ $<0.07$ Sulphate Aqueous Extract as SO4         DETSC 2020# $0.$   | Cadmium                          | DETSC 2301# | 0.1    | mg/kg    | 0.1        |
| Chromium, Hexavalent         DETSC 2204*         1 $mg/kg$ < 1.0           Copper         DETSC 2301#         0.2 $mg/kg$ 25           Lead         DETSC 2301#         0.3 $mg/kg$ 13           Mercury         DETSC 2301#         0.3 $mg/kg$ 33           Selenium         DETSC 2301#         1 $mg/kg$ 33           Selenium         DETSC 2301#         0.5 $mg/kg$ 39           Zinc         DETSC 2301#         0.8 $mg/kg$ 39           Zinc         DETSC 2301#         0.1 $mg/kg$ <0.1  | Chromium III                     | DETSC 2301* | 0.15   | mg/kg    | 31         |
| CopperDETSC 2301#0.2 $mg/kg$ 25LeadDETSC 2301#0.3 $mg/kg$ 13MercuryDETSC 2325#0.05 $mg/kg$ <0.05   | Chromium, Hexavalent             | DETSC 2204* | 1      | mg/kg    | < 1.0      |
| LeadDETSC 2301#0.3mg/kg13MercuryDETSC 2325#0.05mg/kg<0.05  | Copper                           | DETSC 2301# | 0.2    | mg/kg    | 25         |
| MercuryDETSC 2325#0.05 $mg/kg$ < 0.05NickelDETSC 2301#1 $mg/kg$ 33SeleniumDETSC 2301#0.5 $mg/kg$ 39ZincDETSC 2301#1 $mg/kg$ 42InorganicsDETSC 2301#1 $mg/kg$ 42InorganicsDETSC 2130#0.1 $mg/kg$ <0.1   | Lead                             | DETSC 2301# | 0.3    | mg/kg    | 13         |
| Nickel         DETSC 2301#         1         mg/kg         33           Selenium         DETSC 2301#         0.5         mg/kg         <0.5  | Mercury                          | DETSC 2325# | 0.05   | mg/kg    | < 0.05     |
| SeleniumDETSC 2301#0.5 $mg/kg$ < 0.5VanadiumDETSC 2301#0.8 $mg/kg$ 39ZincDETSC 2301#1 $mg/kg$ 42Inorganics </td <td>Nickel</td> <td>DETSC 2301#</td> <td>1</td> <td>mg/kg</td> <td>33</td>   | Nickel                           | DETSC 2301# | 1      | mg/kg    | 33         |
| VanadiumDETSC 2301#0.8mg/kg39ZincDETSC 2301#1mg/kg42InorganicspHDETSC 2008#pH7.7Cyanide, TotalDETSC 2130#0.1mg/kg<0.1  | Selenium                         | DETSC 2301# | 0.5    | mg/kg    | < 0.5      |
| ZincDETSC 2301#1 $mg/kg$ 42InorganicspHDETSC 2008#pH7.7Cyanide, TotalDETSC 2130#0.1 $mg/kg$ <0.1   | Vanadium                         | DETSC 2301# | 0.8    | mg/kg    | 39         |
| Inorganics         DETSC 2008#         PH         7.7           Cyanide, Total         DETSC 2130#         0.1         mg/kg         < 0.1   | Zinc                             | DETSC 2301# | 1      | mg/kg    | 42         |
| pHDETSC 2008#pH7.7Cyanide, TotalDETSC 2130#0.1mg/kg<0.1  | Inorganics                       |             | I      | 0, 0     |            |
| Cyanide, TotalDETSC 2130#0.1mg/kg< 0.1Cyanide, FreeDETSC 2130#0.1mg/kg< 0.1  | pH                               | DETSC 2008# |        | рH       | 7.7        |
| Cyanide, FreeDETSC 2130#0.1mg/kg< 0.1ThiocyanateDETSC 2130#0.6mg/kg< 0.6   | Cyanide, Total                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |
| ThiocyanateDETSC 2130#0.6mg/kg< 0.6Organic matterDETSC 2002#0.1%1.3Nitrate as NO3DETSC 20551mg/kg< 1.0   | Cyanide, Free                    | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |
| Organic matter         DETSC 2002#         0.1         %         1.3           Nitrate as NO3         DETSC 2055         1         mg/kg         <1.0  | Thiocyanate                      | DETSC 2130# | 0.6    | mg/kg    | < 0.6      |
| Nitrate as NO3DETSC 20551mg/kg< 1.0Sulphate Aqueous Extract as SO4DETSC 2076#10mg/l540SulphideDETSC 2024*10mg/kg40Sulphur (free)DETSC 3049#0.75mg/kg< 0.75   | Organic matter                   | DETSC 2002# | 0.1    | <u> </u> | 1.3        |
| Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         540           Sulphide         DETSC 2024*         10         mg/kg         40           Sulphur (free)         DETSC 3049#         0.75         mg/kg         <0.75   | Nitrate as NO3                   | DETSC 2055  | 1      | mg/kg    | < 1.0      |
| SulphideDETSC 2024*10mg/kg40Sulphur (free)DETSC 3049#0.75mg/kg<0.75  | Sulphate Aqueous Extract as SO4  | DETSC 2076# | 10     | mg/l     | 540        |
| Sulphur (free)DETSC 3049#0.75mg/kg< 0.75Sulphur as S, TotalDETSC 23200.01%0.07Sulphate as SO4, TotalDETSC 2321#0.01%0.10Petroleum HydrocarbonsAliphatic C5-C6: HS_1D_ALDETSC 3321*0.01mg/kg< 0.01  | Sulphide                         | DETSC 2024* | 10     | mg/kg    | 40         |
| Sulphur as S, TotalDETSC 23200.01%0.07Sulphate as SO4, TotalDETSC 2321#0.01%0.10Petroleum HydrocarbonsAliphatic C5-C6: HS_1D_ALDETSC 3321*0.01mg/kg< 0.01  | Sulphur (free)                   | DETSC 3049# | 0.75   | mg/kg    | < 0.75     |
| Sulphate as SO4, TotalDETSC 2321# $0.01$ % $0.10$ Petroleum HydrocarbonsAliphatic C5-C6: HS_1D_ALDETSC 3321* $0.01$ mg/kg< $0.01$ Aliphatic C6-C8: HS_1D_ALDETSC 3321* $0.01$ mg/kg< $0.01$ Aliphatic C8-C10: HS_1D_ALDETSC 3321* $0.01$ mg/kg< $0.01$ Aliphatic >EC10-EC12: EH_2D_ALDETSC 3521# $1.5$ mg/kg< $1.50$ Aliphatic >EC10-EC12: EH_2D_ALDETSC 3521# $1.2$ mg/kg< $1.20$ Aliphatic >EC16-EC21: EH_2D_ALDETSC 3521# $1.5$ mg/kg< $3.40$ Aliphatic >EC21-EC35: EH_2D_ALDETSC 3521# $3.4$ mg/kg< $3.40$ Aliphatic >EC40-EC44: EH_2D_ALDETSC 3521# $3.4$ mg/kg< $3.40$ Aliphatic >EC40-EC44: EH_2D_ALDETSC 3521* $3.4$ mg/kg< $3.40$ Aliphatic >EC40-EC44: EH_2D_ALDETSC 3521* $10$ mg/kg< $0.01$ Aliphatic C5-C7: HS_1D_ARDETSC 3321* $0.01$ mg/kg< $0.01$ Aromatic C7-C8: HS_1D_ARDETSC 3321* $0.01$ mg/kg< $0.01$   | Sulphur as S, Total              | DETSC 2320  | 0.01   | <u> </u> | 0.07       |
| Petroleum Hydrocarbons           Aliphatic C5-C6: HS_1D_AL         DETSC 3321*         0.01         mg/kg         < 0.01   | Sulphate as SO4, Total           | DETSC 2321# | 0.01   | %        | 0.10       |
| Aliphatic C5-C6: HS_1D_ALDETSC $3321^*$ 0.01mg/kg< 0.01Aliphatic C6-C8: HS_1D_ALDETSC $3321^*$ 0.01mg/kg< 0.01   | Petroleum Hydrocarbons           |             |        |          |            |
| Aliphatic C6-C8: HS_1D_ALDETSC 3321*0.01mg/kg< 0.01Aliphatic C8-C10: HS_1D_ALDETSC 3321*0.01mg/kg< 0.01  | Aliphatic C5-C6: HS 1D AL        | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL       DETSC 3321*       0.01       mg/kg       < 0.01   | Aliphatic C6-C8: HS 1D AL        | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL       DETSC 3521#       1.5       mg/kg       < 1.50  | Aliphatic C8-C10: HS 1D AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aliphatic >EC12-EC16: EH_2D_AL       DETSC 3521#       1.2       mg/kg       < 1.20  | Aliphatic >EC10-EC12: EH 2D AL   | DETSC 3521# | 1.5    | mg/kg    | < 1.50     |
| Aliphatic >EC16-EC21: EH_2D_AL       DETSC 3521#       1.5       mg/kg       < 1.50  | Aliphatic >EC12-EC16: EH 2D AL   | DETSC 3521# | 1.2    | mg/kg    | < 1.20     |
| Aliphatic >EC21-EC35: EH_2D_AL       DETSC 3521#       3.4       mg/kg       < 3.40  | Aliphatic >EC16-EC21: EH 2D AL   | DETSC 3521# | 1.5    | mg/kg    | < 1.50     |
| Aliphatic >EC35-EC40: EH_2D_AL       DETSC 3521#       3.4       mg/kg       < 3.40  | Aliphatic >EC21-EC35: EH 2D AL   | DETSC 3521# | 3.4    | mg/kg    | < 3.40     |
| Aliphatic >EC40-EC44: EH_2D_AL       DETSC 3521*       3.4       mg/kg       < 3.40  | Aliphatic >EC35-EC40: EH 2D AL   | DETSC 3521# | 3.4    | mg/kg    | < 3.40     |
| Aliphatic C5-C44: EH_2D+HS_1D_AL         DETSC 3521*         10         mg/kg         16.03           Aromatic C5-C7: HS_1D_AR         DETSC 3321*         0.01         mg/kg         < 0.01   | Aliphatic >EC40-EC44: EH 2D AL   | DETSC 3521* | 3.4    | mg/kg    | < 3.40     |
| Aromatic C5-C7: HS_1D_AR         DETSC 3321*         0.01         mg/kg         < 0.01           Aromatic C7-C8: HS_1D_AR         DETSC 3321*         0.01         mg/kg         < 0.01  | Aliphatic C5-C44: EH 2D+HS 1D AL | DETSC 3521* | 10     | mg/kg    | 16.03      |
| Aromatic C7-C8: HS_1D_AR         DETSC 3321*         0.01         mg/kg         < 0.01           Aromatic C8-C10: HS_1D_AR         DETSC 3321*         0.01         mg/kg         < 0.01   | Aromatic C5-C7: HS 1D AR         | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
| Aromatic C8-C10: HS_1D_AR DETSC 3321* 0.01 mg/kg < 0.01  | Aromatic C7-C8: HS 1D AR         | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |
|  | Aromatic C8-C10: HS 1D AR        | DETSC 3321* | 0.01   | mg/kg    | < 0.01     |



|                                       | Lab No      |        |          |            |
|---------------------------------------|-------------|--------|----------|------------|
|                                       |             | .Sa    | mple ID  | F-BH116    |
|                                       |             |        | Depth    | 20.55      |
|                                       |             | (      | Other ID |            |
|                                       |             | Sam    | ple Type | ES         |
|                                       |             | Sampl  | ing Date | 06/09/2022 |
|                                       |             | Sampli | ing Time | n/s        |
| Test                                  | Method      | LOD    | Units    |            |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9    | mg/kg    | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5    | mg/kg    | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6    | mg/kg    | < 0.60     |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4    | mg/kg    | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4    | mg/kg    | < 1.40     |
| Aromatic >EC40-EC44: EH_2D_AR         | DETSC 3521* | 1.4    | mg/kg    | < 1.40     |
| Aromatic C5-C44: EH_2D+HS_1D_AR       | DETSC 3521* | 10     | mg/kg    | < 10.00    |
| TPH Ali/Aro C5-C44: EH_2D+HS_1D_Total | DETSC 3521* | 10     | mg/kg    | 22.95      |
| PAHs                                  |             |        |          |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg    | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg    | < 0.10     |
| Phenols                               |             |        |          |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3    | mg/kg    | < 0.3      |



## Information in Support of the Analytical Results

*Our Ref* 22-17948 *Client Ref* 60678042 *Contract* NZT Feed GI

## **Containers Received & Deviating Samples**

|             |                         | Date     |                          | Holding time<br>exceeded for | Inappropriate container for |
|-------------|-------------------------|----------|--------------------------|------------------------------|-----------------------------|
| Lab No      | Sample ID               | Sampled  | Containers Received      | tests                        | tests                       |
| 2056602     | F-BH116 20.55 SOIL      | 06/09/22 | GJ 250ml, GJ 60ml, PT 1L |                              |                             |
| Kev: G-Glas | s P-Plastic J-Jar T-Tub |          |                          |                              |                             |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



# Information in Support of the Analytical Results

## List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |

Acronym

## Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic >EC40-EC44 | EH_2D_AL          |
| Aliphatic C5-C44     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic >EC40-EC44  | EH_2D_AR          |
| Aromatic C5-C44      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C44   | EH_2D+HS_1D_Total |

End of Report



Issued:

05-Oct-22

Certificate Number 22-18312

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-18312
- *Client Reference* 60678042
  - Order No (not supplied)
  - *Contract Title* (not supplied)
    - Description 4 Soil samples, 1 Leachate sample.
  - Date Received 15-Sep-22
- Date Started 15-Sep-22
- Date Completed 05-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

Page 1 of 9



|                                 |             |        | Lab No   | 2058700    | 2058701    | 2058702     | 2058703    |
|---------------------------------|-------------|--------|----------|------------|------------|-------------|------------|
|                                 |             | .Sa    | imple ID | F-BH102    | F-BH102    | F-BH102     | F-BH102    |
|                                 |             |        | Depth    | 1.00       | 1.50       | 6.60        | 8.20       |
|                                 |             | C      | Other ID |            |            | اا          |            |
|                                 |             | Samp   | ole Type | ES         | ES         | ES          | ES         |
|                                 |             | Sampli | ing Date | 09/09/2022 | 09/09/2022 | 09/09/2022  | 09/09/2022 |
|                                 |             | Sampli | ng Time  | n/s        | n/s        | n/s         | n/s        |
| Test                            | Method      | LOD    | Units    |            |            |             |            |
| Preparation                     | ·           |        |          | . <u> </u> |            |             | I          |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 8.3        |            | 5.0         | 18         |
| Metals                          |             |        |          |            | 1          | <del></del> | I          |
| Aluminium                       | DETSC 2301* |        | mg/kg    | 49000      |            | <u> </u>    |            |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 4.6        |            | 6.0         | /.5        |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 5.3        |            | 9.2         | 0.2        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 1.6        |            | 8.6         | 1.2        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 0.2        |            | < 0.1       | < 0.1      |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 53         |            | 5.9         | 5.2        |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      |            | < 1.0       | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 11         |            | 4.9         | 4.6        |
| Iron                            | DETSC 2301  | 25     | mg/kg    | 14000      |            |             |            |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 12         |            | 1.0         | 34         |
| Manganese                       | DETSC 2301# | 20     | mg/kg    | 2900       |            | [           |            |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05     |            | < 0.05      | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    | 1.4        |            | ['          |            |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 2.7        |            | < 1.0       | 4.7        |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 330        |            | ['          |            |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 1.6        |            | 2.0         | < 0.5      |
| Tin                             | DETSC 2301  | 1      | mg/kg    | 1.3        |            | ['          |            |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 120        |            | 24          | 14         |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 55         |            | 5.5         | 29         |
| Inorganics                      |             |        |          |            |            |             |            |
| рН                              | DETSC 2008# |        | pН       | 11.2       |            | 11.2        | 9.4        |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |            | 0.1         | < 0.1      |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |            | < 0.1       | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | 1.7        |            | 0.9         | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 4.5        |            | 0.4         | 0.8        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 1.8        |            |             |            |
| Chloride                        | DETSC 2055  | 1      | mg/kg    | 36.7       |            | <u> </u>    |            |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    | 2.4        |            |             |            |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | < 1.0      |            | < 1.0       | < 1.0      |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | < 0.10     |            |             |            |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 740        |            | 630         | 310        |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 1300       |            | 990         | 91         |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 230        |            | 180         | 120        |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.56       |            | 0.35        | 0.18       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 1.2        |            | 0.69        | 0.17       |



*Our Ref* 22-18312 *Client Ref* 60678042 *Contract Title* 

|                                       |             |            | Lab No   | 2058700                                      | 2058701    | 2058702    | 2058703    |
|---------------------------------------|-------------|------------|----------|--|------------|------------|------------|
|                                       |             | .Si        | ample ID | F-BH102                                      | F-BH102    | F-BH102    | F-BH102    |
|                                       |             |            | Depth    | 1.00   | 1.50       | 6.60       | 8.20       |
|                                       |             |            | Other ID | ļ  |            |            |            |
|                                       |             | Sam        | ple Type | ES   | ES         | ES         | ES         |
|                                       |             | Sampl      | ing Date | 09/09/2022                                   | 09/09/2022 | 09/09/2022 | 09/09/2022 |
|                                       |             | Sampl      | ing Time | n/s  | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD        | Units    |  |            |            |            |
| Petroleum Hydrocarbons                |             |            |          |  |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01       | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01       | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01       | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic >EC10-EC12: EH_2D_AL        | DETSC 3521# | 1.5        | mg/kg    | 1.68   | 1.87       | 1.90       | 2.59       |
| Aliphatic >EC12-EC16: EH_2D_AL        | DETSC 3521# | 1.2        | mg/kg    | 1.79   | 1.52       | < 1.20     | 2.47       |
| Aliphatic >EC16-EC21: EH_2D_AL        | DETSC 3521# | 1.5        | mg/kg    | 2.75   | < 1.50     | < 1.50     | < 1.50     |
| Aliphatic >EC21-EC35: EH_2D_AL        | DETSC 3521# | 3.4        | mg/kg    | 177.1  | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic >EC35-EC40: EH_2D_AL        | DETSC 3521# | 3.4        | mg/kg    | 272.3  | < 3.40     | < 3.40     | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS_1D_AL      | DETSC 3521* | 10         | mg/kg    | 455.6  | 12.35      | 11.93      | 15.17      |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01       | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01       | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01       | mg/kg    | < 0.01                                       | < 0.01     | < 0.01     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9        | mg/kg    | 1.22   | < 0.90     | < 0.90     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5        | mg/kg    | 20.59  | < 0.50     | < 0.50     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6        | mg/kg    | 227.4  | 1.04       | 2.37       | 1.28       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4        | mg/kg    | 879.2  | < 1.40     | < 1.40     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4        | mg/kg    | 58.48  | < 1.40     | < 1.40     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10         | mg/kg    | 1187   | < 10.00    | < 10.00    | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10         | mg/kg    | 1643   | 17.94      | 18.75      | 21.59      |
| PAHs                                  | · · · ·     | . <u> </u> |          | <u>.                                    </u> |            | <u> </u>   |            |
| Acenaphthene                          | DETSC 3303# | 0.03       | mg/kg    | 4.9  |            | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03       | mg/kg    | 0.22   |            | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03       | mg/kg    | 5.2  |            | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03       | mg/kg    | 28   |            | 0.05       | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03       | mg/kg    | 27   |            | 0.05       | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03       | mg/kg    | 37   |            | 0.09       | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03       | mg/kg    | 15   |            | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03       | mg/kg    | 16   |            | 0.03       | < 0.03     |
| Chrvsene                              | DETSC 3303  | 0.03       | mg/kg    | 28   |            | 0.04       | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03       | mg/kg    | 4.2  |            | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03       | mg/kg    | 72   |            | 0.07       | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03       | mg/kg    | 2.1  |            | < 0.03     | < 0.03     |
| Indeno(1.2.3-c,d)pyrene               | DETSC 3303# | 0.03       | mg/kg    | 16   |            | 0.03       | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03       | mg/kg    | 0.11   |            | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03       | mg/kg    | 28   |            | < 0.03     | < 0.03     |
| Pvrene                                | DETSC 3303# | 0.03       | mg/kg    | 69   |            | 0.07       | < 0.03     |
| PAH - USEPA 16. Total                 | DETSC 3303  | 0.1        | mg/kg    | 350  |            | 0.39       | < 0.10     |
| Phenols                               | <u></u>     | L          |          | <u> </u>                                     |            | <u> </u>   |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3        | mg/kg    | 0.4  |            | 0.5        | 0.9        |

Key: \* -not accredited. # -MCERTS (accreditation only applies if report carries the MCERTS logo). \$ -subcontracted. n/s -not supplied. Page 3 of 9



|                        |        |        | Lab No   | 2058700    | 2058701    | 2058702    | 2058703    |
|------------------------|--------|--------|----------|------------|------------|------------|------------|
|                        |        | .Sa    | mple ID  | F-BH102    | F-BH102    | F-BH102    | F-BH102    |
|                        |        |        | Depth    | 1.00       | 1.50       | 6.60       | 8.20       |
|                        |        |        | Other ID |            |            |            |            |
|                        |        | Sam    | ple Type | ES         | ES         | ES         | ES         |
|                        |        | Sampl  | ing Date | 09/09/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 |
|                        |        | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                   | Method | LOD    | Units    |            |            |            |            |
| Subcontracted Analysis |        |        |          |            |            |            |            |
| Benzene                | \$*    | <2     | ug/kg    | <2         |            |            | <2         |
| Toluene                | \$*    | <5     | ug/kg    | <5         |            |            | <5         |
| Ethylbenzene           | \$*    | <2     | ug/kg    | <2         |            |            | <2         |
| p & m-xylene           | \$*    | <2     | ug/kg    | <2         |            |            | <2         |
| o-xylene               | \$*    | <2     | ug/kg    | <2         |            |            | <2         |
| МТВЕ                   | \$*    | <5     | ug/kg    | <5         |            |            | <5         |
| ТАМЕ                   | \$*    | < 5    | ug/kg    | < 5        |            |            | < 5        |



## **Leachate Samples**

| Image: Sample Disolved         F-BH102           Sample Disolved         Perbloc           Sample Disolved         Sample Disolved           Subcon to Jones-Liquid         \$         O           Subcon to Jones-Liquid         \$         O         Yee           Subcon to Jones-Liquid         \$         O         Yee           Aluminium, Dissolved         DETSC 1009*         Usg/         850           Arsenic, Dissolved         DETSC 2306         1.0         ug/         850           Arsenic, Dissolved         DETSC 2306         0.1         ug/         <1.0           Boron, Dissolved         DETSC 2306         0.1         ug/         <1.0           Cadmium, Dissolved         DETSC 2306         0.1         ug/         <1.0           Chromium, Hexavalent         DETSC 2306         0.3         ug/         <1.0           Chromium, Hexavalent         DETSC 2306         0.4         ug/         <1.0           Manganese, Dissolved         DETSC 2306         0.1         ug/         <1.0           Manganese, Dissolved         DETSC 2306         0.2         ug/         <1.1           Mercury, Dissolved         DETSC 2306         0.5         ug/         <2.3 |                            |             |        | Lab No   | 2058704    |
|--|----------------------------|-------------|--------|----------|------------|
| Depth         1.00           Other 10  |                            |             | .Sa    | mple ID  | F-BH102    |
| Other ID           Sample Type           Sampling Date           Preparation           Leachate 2:1 250g Non-WAC         DETSC 1009*         Y           Metals         Method           Aluminium, Dissolved         DETSC 2306         10.1         ug/         Q           Boron, Dissolved         DETSC 2306         0.1         ug/            Cadmium, Dissolved         DETSC 2306         0.1         ug/            Colspan= Dissolved         DETSC 2306         0.0         G           Colspan= Dissolved         DETSC 2306         0.0         G           Colspan= Dissolved         DETSC 2306         0.0         <  |                            |             |        | Depth    | 1.00       |
| Sample Type         Es           Sampling Date         Corr           Sampling Time         Corr           Test         Method         LOD         Units           Subcon to Jones-Liquid         \$         0         Y           Preparation   |                            |             | (      | Other ID |            |
| Sampling Date<br>Subcon to Jones-Liquid         Sampling Time<br>Subcon to Jones-Liquid         O         Units           Subcon to Jones-Liquid         \$         0         Y           Preparation  |                            |             | Sam    | ple Type | ES         |
| Test         Method         LOD         Units           Subcon to Jones-Liquid         \$         0         Y           Preparation         Leachate 2:1 250g Non-WAC         DETSC 1009*         Y           Metals   |                            |             | Sampl  | ing Date | 09/09/2022 |
| Test         Method         LOD         Units           Subcon to Jones-Liquid         \$         0         Y           Preparation  |                            |             | Sampli | ing Time | n/s        |
| Subcon to Jones-Liquid         \$         0         Y           Preparation  | Test                       | Method      | LOD    | Units    |            |
| Preparation         V           Leachate 2:1 250g Non-WAC         DETSC 1009*         Y           Metals   | Subcon to Jones-Liquid     | \$          | 0      |          | Y          |
| Leachate 2:1 250g Non-WAC         DETSC 1009*         Y           Metals   | Preparation                |             |        |          |            |
| Metals           Aluminium, Dissolved         DETSC 2306         10         ug/l         850           Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.44           Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         <0.1   | Leachate 2:1 250g Non-WAC  | DETSC 1009* |        |          | Y          |
| Aluminium, Dissolved         DETSC 2306         10         ug/l         850           Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.44           Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         < 0.1   | Metals                     |             |        |          |            |
| Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.44           Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         < 0.1   | Aluminium, Dissolved       | DETSC 2306  | 10     | ug/l     | 850        |
| Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         < 0.1           Boron, Dissolved         DETSC 2306         12         ug/l         < 12   | Arsenic, Dissolved         | DETSC 2306  | 0.16   | ug/l     | 0.44       |
| Boron, Dissolved         DETSC 2306*         12         ug/l         <12           Cadmium, Dissolved         DETSC 2306         0.03         ug/l         <0.03   | Beryllium, Dissolved       | DETSC 2306* | 0.1    | ug/l     | < 0.1      |
| Cadmium, Dissolved         DETSC 2306         0.03         ug/l         < 0.03           Chromium III, Dissolved         DETSC 2306*         1         ug/l         < 1.0  | Boron, Dissolved           | DETSC 2306* | 12     | ug/l     | < 12       |
| Chromium III, Dissolved         DETSC 2306*         1         ug/l         <1.0           Chromium, Hexavalent         DETSC 2203         0.007         mg/l         <0.007  | Cadmium, Dissolved         | DETSC 2306  | 0.03   | ug/l     | < 0.03     |
| Chromium, Hexavalent         DETSC 2203 $0.007$ $mg/l$ $< 0.007$ Copper, Dissolved         DETSC 2306 $0.4$ $ug/l$ $4.8$ Iron, Dissolved         DETSC 2306 $5.5$ $ug/l$ $4.8$ Iron, Dissolved         DETSC 2306 $0.09$ $ug/l$ $6.3$ Manganese, Dissolved         DETSC 2306 $0.02$ $ug/l$ $1.1$ Mercury, Dissolved         DETSC 2306 $0.01$ $ug/l$ $0.02$ Molybdenum, Dissolved         DETSC 2306 $0.5$ $ug/l$ $4.7$ Nickel, Dissolved         DETSC 2306 $0.5$ $ug/l$ $4.7$ Nickel, Dissolved         DETSC 2306 $0.5$ $ug/l$ $4.7$ Nickel, Dissolved         DETSC 2306 $0.4$ $ug/l$ $4.36$ Selenium, Dissolved         DETSC 2306 $0.4$ $ug/l$ $4.9$ Vanadium, Dissolved         DETSC 2306 $0.4$ $ug/l$ $4.5$ Cyanide, Total Low Level         DETSC 2131 $0.1$ $ug/l$ $4.5$ Cyanide, Free Low   | Chromium III, Dissolved    | DETSC 2306* | 1      | ug/l     | < 1.0      |
| Copper, Dissolved         DETSC 2306         0.4         ug/l         4.8           Iron, Dissolved         DETSC 2306         5.5         ug/l         <5.5   | Chromium, Hexavalent       | DETSC 2203  | 0.007  | mg/l     | < 0.007    |
| Iron, Dissolved         DETSC 2306         5.5         ug/l         < 5.5           Lead, Dissolved         DETSC 2306         0.09         ug/l         6.3           Manganese, Dissolved         DETSC 2306         0.22         ug/l         1.1           Mercury, Dissolved         DETSC 2306         0.01         ug/l         0.02           Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         4.7           Nickel, Dissolved         DETSC 2306         1.8         ug/l         36           Selenium, Dissolved         DETSC 2306         0.25         ug/l         2.3           Tin, Dissolved         DETSC 2306         0.4         ug/l         <0.4  | Copper, Dissolved          | DETSC 2306  | 0.4    | ug/l     | 4.8        |
| Lead, Dissolved         DETSC 2306         0.09         ug/l         6.3           Manganese, Dissolved         DETSC 2306         0.22         ug/l         1.1           Mercury, Dissolved         DETSC 2306         0.01         ug/l         0.02           Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         4.7           Nickel, Dissolved         DETSC 2306         0.5         ug/l         <0.5   | Iron, Dissolved            | DETSC 2306  | 5.5    | ug/l     | < 5.5      |
| Manganese, DissolvedDETSC 23060.22ug/l1.1Mercury, DissolvedDETSC 23060.01ug/l0.02Molybdenum, DissolvedDETSC 23061.1ug/l4.7Nickel, DissolvedDETSC 23060.5ug/l<0.5   | Lead, Dissolved            | DETSC 2306  | 0.09   | ug/l     | 6.3        |
| Mercury, Dissolved         DETSC 2306         0.01         ug/l         0.02           Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         4.7           Nickel, Dissolved         DETSC 2306         0.5         ug/l         <0.5  | Manganese, Dissolved       | DETSC 2306  | 0.22   | ug/l     | 1.1        |
| Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         4.7           Nickel, Dissolved         DETSC 2306         0.5         ug/l         < 0.5  | Mercury, Dissolved         | DETSC 2306  | 0.01   | ug/l     | 0.02       |
| Nickel, Dissolved         DETSC 2306         0.5         ug/l         < 0.5           Phosphorus as P, Dissolved         DETSC 2306         18         ug/l         36           Selenium, Dissolved         DETSC 2306         0.25         ug/l         2.3           Tin, Dissolved         DETSC 2306*         0.4         ug/l         < 0.4  | Molybdenum, Dissolved      | DETSC 2306  | 1.1    | ug/l     | 4.7        |
| Phosphorus as P, Dissolved         DETSC 2306         18         ug/l         36           Selenium, Dissolved         DETSC 2306         0.25         ug/l         2.3           Tin, Dissolved         DETSC 2306*         0.4         ug/l         <0.4   | Nickel, Dissolved          | DETSC 2306  | 0.5    | ug/l     | < 0.5      |
| Selenium, Dissolved         DETSC 2306         0.25         ug/l         2.3           Tin, Dissolved         DETSC 2306*         0.4         ug/l         < 0.4   | Phosphorus as P, Dissolved | DETSC 2306  | 18     | ug/l     | 36         |
| Tin, Dissolved         DETSC 2306*         0.4         ug/l         < 0.4           Vanadium, Dissolved         DETSC 2306         0.6         ug/l         19           Zinc, Dissolved         DETSC 2306         1.3         ug/l         3.5           Inorganics         pH         DETSC 2008         pH         10.8           Cyanide, Total Low Level         DETSC 2131         0.1         ug/l         4.5           Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2303         0.1         ug/l         160           Total Hardness as CaCO3         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         0.24           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10   | Selenium, Dissolved        | DETSC 2306  | 0.25   | ug/l     | 2.3        |
| Vanadium, Dissolved         DETSC 2306         0.6         ug/l         19           Zinc, Dissolved         DETSC 2306         1.3         ug/l         3.5           Inorganics         DETSC 2008         PH         10.8           Cyanide, Total Low Level         DETSC 2131         0.1         ug/l         4.5           Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2303         0.1         ug/l         160           Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         0.12           Nitrite as NO2         DETSC 2055         0.1         mg/l         0.02           Sulphate as SO4         DETSC 2055         0.1         mg/l         0.02    | Tin, Dissolved             | DETSC 2306* | 0.4    | ug/l     | < 0.4      |
| Zinc, Dissolved         DETSC 2306         1.3         ug/l         3.5           Inorganics         pH         DETSC 2008         pH         10.8           Cyanide, Total Low Level         DETSC 2131         0.1         ug/l         4.5           Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2130         20         ug/l         160           Total Hardness as CaCO3         DETSC 2003         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as N         DETSC 2055         0.1         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         0.12           Nitrite as NO2         DETSC 2055         0.1         mg/l         <0.10  | Vanadium, Dissolved        | DETSC 2306  | 0.6    | ug/l     | 19         |
| Inorganics         pH         DETSC 2008         pH         10.8           Cyanide, Total Low Level         DETSC 2131         0.1         ug/l         4.5           Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2130         20         ug/l         160           Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10   | Zinc, Dissolved            | DETSC 2306  | 1.3    | ug/l     | 3.5        |
| pH         DETSC 2008         pH         10.8           Cyanide, Total Low Level         DETSC 2131         0.1         ug/l         4.5           Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2130         20         ug/l         160           Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10  | Inorganics                 |             |        | 0,       |            |
| Cyanide, Total Low Level         DETSC 2131         0.1         ug/l         4.5           Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2130         20         ug/l         160           Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2007         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         0.14           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10   | pH                         | DETSC 2008  |        | Hq       | 10.8       |
| Cyanide, Free Low Level         DETSC 2131         0.1         ug/l         0.2           Thiocyanate         DETSC 2130         20         ug/l         160           Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10   | Cyanide, Total Low Level   | DETSC 2131  | 0.1    | ug/l     | 4.5        |
| Thiocyanate         DETSC 2130         20         ug/l         160           Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10   | Cyanide, Free Low Level    | DETSC 2131  | 0.1    | ug/l     | 0.2        |
| Total Hardness as CaCO3         DETSC 2303         0.1         mg/l         269           Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         0.14           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         0.12           Nitrite as NO2         DETSC 2055         0.1         mg/l         <0.10   | Thiocyanate                | DETSC 2130  | 20     | ug/l     | 160        |
| Ammoniacal Nitrogen as NH4         DETSC 2207         0.015         mg/l         0.30           Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         0.12           Nitrite as NO2         DETSC 2055         0.1         mg/l         <0.10  | Total Hardness as CaCO3    | DETSC 2303  | 0.1    | mg/l     | 269        |
| Ammoniacal Nitrogen as NH3         DETSC 2207         0.015         mg/l         0.29           Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055*         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         0.12           Nitrite as NO2         DETSC 2055         0.1         mg/l         <0.10   | Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015  | mg/l     | 0.30       |
| Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         0.24           Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055*         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         0.12           Nitrite as NO2         DETSC 2055         0.1         mg/l         < 0.10  | Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015  | mg/l     | 0.29       |
| Chloride         DETSC 2055         0.1         mg/l         1.4           Fluoride         DETSC 2055*         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         <0.10   | Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015  | mg/l     | 0.24       |
| Fluoride         DETSC 2055*         0.1         mg/l         0.12           Nitrate as NO3         DETSC 2055         0.1         mg/l         < 0.10   | Chloride                   | DETSC 2055  | 0.1    | mg/l     | 1.4        |
| Nitrate as NO3         DETSC 2055         0.1         mg/l         < 0.10           Nitrite as NO2         DETSC 2055         0.1         mg/l         < 0.10  | Fluoride                   | DETSC 2055* | 0.1    | mg/l     | 0.12       |
| Nitrite as NO2         DETSC 2055         0.1         mg/l         < 0.10           Ortho Phosphate as P         DETSC 2205         0.01         mg/l         0.02           Sulphate as SO4         DETSC 2055         0.1         mg/l         18  | Nitrate as NO3             | DETSC 2055  | 0.1    | mg/l     | < 0.10     |
| Ortho Phosphate as P         DETSC 2205         0.01         mg/l         0.02           Sulphate as SO4         DETSC 2055         0.1         mg/l         18  | Nitrite as NO2             | DETSC 2055  | 0.1    | mg/l     | < 0.10     |
| Sulphate as SO4DETSC 20550.1mg/l18   | Ortho Phosphate as P       | DETSC 2205  | 0.01   | mg/l     | 0.02       |
|  | Sulphate as SO4            | DETSC 2055  | 0.1    | mg/l     | 18         |
| Total Organic Carbon DFTSC 2085 1 1 mg/II 6 9  | Total Organic Carbon       | DETSC 2085  | 1      | mg/l     | 6.9        |



## **Leachate Samples**

|                         | Lab No            |         |          | 2058704    |
|-------------------------|-------------------|---------|----------|------------|
|                         |                   | .Sa     | mple ID  | F-BH102    |
|                         |                   |         | Depth    | 1.00       |
|                         |                   | C       | Other ID |            |
|                         |                   | Samp    | le Type  | ES         |
|                         |                   | Sampli  | ng Date  | 09/09/2022 |
|                         |                   | Sampliı | ng Time  | n/s        |
| Test                    | Method            | LOD     | Units    |            |
| PAHs                    |                   |         |          |            |
| Acenaphthene            | DETSC 3304        | 0.01    | ug/l     | 2.5        |
| Acenaphthylene          | DETSC 3304        | 0.01    | ug/l     | 0.17       |
| Anthracene              | DETSC 3304        | 0.01    | ug/l     | 0.66       |
| Benzo(a)anthracene      | DETSC 3304*       | 0.01    | ug/l     | 0.03       |
| Benzo(a)pyrene          | <b>DETSC 3304</b> | 0.01    | ug/l     | 0.03       |
| Benzo(b)fluoranthene    | DETSC 3304        | 0.01    | ug/l     | 0.04       |
| Benzo(g,h,i)perylene    | <b>DETSC 3304</b> | 0.01    | ug/l     | 0.02       |
| Benzo(k)fluoranthene    | DETSC 3304        | 0.01    | ug/l     | 0.03       |
| Chrysene                | DETSC 3304        | 0.01    | ug/l     | 0.04       |
| Dibenzo(a,h)anthracene  | DETSC 3304        | 0.01    | ug/l     | < 0.01     |
| Fluoranthene            | DETSC 3304        | 0.01    | ug/l     | 0.21       |
| Fluorene                | DETSC 3304        | 0.01    | ug/l     | 0.38       |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304        | 0.01    | ug/l     | 0.02       |
| Naphthalene             | DETSC 3304        | 0.05    | ug/l     | 0.44       |
| Phenanthrene            | DETSC 3304        | 0.01    | ug/l     | 0.90       |
| Pyrene                  | DETSC 3304        | 0.01    | ug/l     | 0.17       |
| PAH Total               | DETSC 3304        | 0.2     | ug/l     | 5.7        |
| Subcontracted Analysis  |                   |         |          |            |
| Hexavalent Chromium     | \$*               | <2      | ug/l     | <2         |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

Our Ref 22-18312 Client Ref 60678042 Contract Title

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst      |
|---------|--------------|---------------|--------|----------|--------------|
| 2058700 | F-BH102 1.00 | SOIL          | NAD    | none     | Pierce Booth |
| 2058701 | F-BH102 1.50 | SOIL          | NAD    | none     | Pierce Booth |
| 2058702 | F-BH102 6.60 | SOIL          | NAD    | none     | Pierce Booth |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Inappropriate

## Information in Support of the Analytical Results

Our Ref 22-18312 Client Ref 60678042 Contract

## **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2058700 | F-BH102 1.00 SOIL     | 09/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058701 | F-BH102 1.50 SOIL     | 09/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058702 | F-BH102 6.60 SOIL     | 09/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058703 | F-BH102 8.20 SOIL     | 09/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058704 | F-BH102 1.00 LEACHATE | 09/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



# Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

### List of HWOL Acronyms and Operators

## Det

| Aliphatic C5-C6      | HS 1D AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |

End of Report



Issued:

Certificate Number 22-18314

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-18314
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description One Soil sample.
  - Date Received 15-Sep-22
  - Date Started 15-Sep-22
- Date Completed 28-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lyemood

Kirk Bridgewood General Manager



28-Sep-22



|                                 |             |        | Lab No   | 2058711    |
|---------------------------------|-------------|--------|----------|------------|
|                                 |             | .Sa    | mple ID  | F-BH102    |
|                                 |             |        | Depth    | 14.50      |
|                                 |             | (      | Other ID |            |
|                                 |             | Sam    | ple Type | ES         |
|                                 |             | Sampl  | ing Date | 12/09/2022 |
|                                 |             | Sampli | ing Time | n/s        |
| Test                            | Method      | LOD    | Units    |            |
| Preparation                     |             |        |          |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 14         |
| Metals                          |             |        |          |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg    | 2500       |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 20         |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | < 0.2      |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 0.7        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | < 0.1      |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 5.6        |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 6.6        |
| Iron                            | DETSC 2301  | 25     | mg/kg    | 18000      |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 4.8        |
| Manganese                       | DETSC 2301# | 20     | mg/kg    | 320        |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    | 1.2        |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 6.6        |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 520        |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 0.6        |
| Tin                             | DETSC 2301  | 1      | mg/kg    | < 1.0      |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 22         |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 24         |
| Inorganics                      |             | L L    |          |            |
| рН                              | DETSC 2008# |        | pН       | 8.8        |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 0.5        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 2.0        |
| Chloride                        | DETSC 2055  | 1      | mg/kg    | 532        |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    | < 1.0      |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | < 1.0      |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | 0.52       |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 110        |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 36         |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | < 0.75     |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.05       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 0.09       |



|                                       |             | Lab No |           | 2058711    |
|---------------------------------------|-------------|--------|-----------|------------|
|                                       |             | .Sa    | mple ID   | F-BH102    |
|                                       |             |        | Depth     | 14.50      |
|                                       |             |        | Other ID  |            |
|                                       |             | Sam    | ole Type  | ES         |
|                                       |             | Sampl  | ing Date  | 12/09/2022 |
|                                       |             | Sampli | ing Time  | n/s        |
| Test                                  | Method      |        | Units     | , 5        |
| Petroleum Hydrocarbons                | methou      | 105    | 0         |            |
| Aliphatic C5-C6: HS 1D Al             | DFTSC 3321* | 0.01   | ma/ka     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01   | mg/kg     | < 0.01     |
| Aliphatic SEC10-EC12: EH 2D AL        | DETSC 2521# | 1 5    | mg/kg     | 1 92       |
| Aliphatic >EC12 EC16: EH_2D_AL        | DETSC 2521# | 1.5    | mg/kg     | 1.05       |
| Aliphatic >EC16 EC21; EH_2D_AL        | DETSC 3521# | 1.2    | mg/kg     | 1.40       |
| Aliphatic >EC10-EC21. EH_2D_AL        | DETSC 3521# | 1.5    | mg/kg     | < 1.50     |
| Aliphatic >EC21-EC35: EH_2D_AL        | DETSC 3521# | 3.4    | mg/kg     | < 3.40     |
| Aliphatic >EC35-EC40: EH_2D_AL        | DETSC 3521# | 3.4    | mg/kg     | < 3.40     |
| Aliphatic C5-C40: EH_2D+HS_1D_AL      | DETSC 3521* | 10     | mg/kg     | 12.86      |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg     | < 0.01     |
| Aromatic >EC10-EC12: EH_2D_AR         | DETSC 3521# | 0.9    | mg/kg     | < 0.90     |
| Aromatic >EC12-EC16: EH_2D_AR         | DETSC 3521# | 0.5    | mg/kg     | < 0.50     |
| Aromatic >EC16-EC21: EH_2D_AR         | DETSC 3521# | 0.6    | mg/kg     | 1.17       |
| Aromatic >EC21-EC35: EH_2D_AR         | DETSC 3521# | 1.4    | mg/kg     | < 1.40     |
| Aromatic >EC35-EC40: EH_2D_AR         | DETSC 3521* | 1.4    | mg/kg     | < 1.40     |
| Aromatic C5-C40: EH_2D+HS_1D_AR       | DETSC 3521* | 10     | mg/kg     | < 10.00    |
| TPH Ali/Aro C5-C40: EH_2D+HS_1D_Total | DETSC 3521* | 10     | mg/kg     | 18.92      |
| PAHs                                  |             |        |           |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg     | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg     | < 0.03     |
| PAH - USEPA 16. Total                 | DETSC 3303  | 0.1    | mg/kg     | < 0.10     |
| Phenols                               |             | 0.1    | סיי זסייי |            |
| Phenol - Monohydric                   | DETSC 2130# | 0.3    | mg/kg     | < 0.3      |


## Information in Support of the Analytical Results

*Our Ref* 22-18314 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|             |                         | Date     |                          | Holding time<br>exceeded for | Inappropriate container for |
|-------------|-------------------------|----------|--------------------------|------------------------------|-----------------------------|
| Lab No      | Sample ID               | Sampled  | Containers Received      | tests                        | tests                       |
| 2058711     | F-BH102 14.50 SOIL      | 12/09/22 | GJ 250ml, GJ 60ml, PT 1L |                              |                             |
| Kev: G-Glas | s P-Plastic J-Jar T-Tub |          |                          |                              |                             |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### Det

| Aliphatic C5-C6      | HS_1D_AL          |
|----------------------|-------------------|
| Aliphatic C6-C8      | HS_1D_AL          |
| Aliphatic C8-C10     | HS_1D_AL          |
| Aliphatic >EC10-EC12 | EH_2D_AL          |
| Aliphatic >EC12-EC16 | EH_2D_AL          |
| Aliphatic >EC16-EC21 | EH_2D_AL          |
| Aliphatic >EC21-EC35 | EH_2D_AL          |
| Aliphatic >EC35-EC40 | EH_2D_AL          |
| Aliphatic C5-C40     | EH_2D+HS_1D_AL    |
| Aromatic C5-C7       | HS_1D_AR          |
| Aromatic C7-C8       | HS_1D_AR          |
| Aromatic C8-C10      | HS_1D_AR          |
| Aromatic >EC10-EC12  | EH_2D_AR          |
| Aromatic >EC12-EC16  | EH_2D_AR          |
| Aromatic >EC16-EC21  | EH_2D_AR          |
| Aromatic >EC21-EC35  | EH_2D_AR          |
| Aromatic >EC35-EC40  | EH_2D_AR          |
| Aromatic C5-C40      | EH_2D+HS_1D_AR    |
| TPH Ali/Aro C5-C40   | EH_2D+HS_1D_Total |



Issued: 23-Sep-22

Certificate Number 22-18373 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-18373
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 2 Soil samples, 2 Leachate samples.
  - Date Received 08-Aug-22
  - Date Started 16-Sep-22
- Date Completed 23-Sep-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood.

Kirk Bridgewood General Manager





*Our Ref* 22-18373 *Client Ref* 60678042 *Contract Title* NZT FEED GI

|                          |             |       | Lab No   | 2058947    | 2058948    |
|--------------------------|-------------|-------|----------|------------|------------|
|                          |             | .Sa   | ample ID | F-BH120    | F-BH120    |
|                          |             |       | Depth    | 3.50       | 5.50       |
|                          |             |       | Other ID |            |            |
|                          |             | Sam   | ple Type | ES         | ES         |
|                          |             | Sampl | ing Date | 02/08/2022 | 02/08/2022 |
|                          |             | Sampl | ing Time | 1400       | 1500       |
| Test                     | Method      | LOD   | Units    |            |            |
| Metals                   |             |       |          |            |            |
| Aluminium                | DETSC 2301* | 1     | mg/kg    | 57000      | 3400       |
| Iron                     | DETSC 2301  | 25    | mg/kg    | 3200       | 8400       |
| Manganese                | DETSC 2301# | 20    | mg/kg    | 550        | 170        |
| Molybdenum               | DETSC 2301# | 0.4   | mg/kg    | 0.8        | 0.4        |
| Phosphorus               | DETSC 2301* | 1     | mg/kg    | 130        | 140        |
| Tin                      | DETSC 2301  | 1     | mg/kg    | < 1.0      | < 1.0      |
| Inorganics               |             |       |          |            |            |
| Ammoniacal Nitrogen as N | DETSC 2119# | 0.5   | mg/kg    | 3.2        | 1.7        |
| Chloride                 | DETSC 2055  | 1     | mg/kg    | 29.9       | 28.0       |
| Fluoride                 | DETSC 2055  | 1     | mg/kg    | 1.5        | 1.5        |
| Ortho Phosphate as P     | DETSC 2205* | 0.1   | mg/kg    | < 0.10     | 0.13       |

г



## Summary of Chemical Analysis Leachate Samples

|                            |                   | 2058949 | 2058950  |            |            |
|----------------------------|-------------------|---------|----------|------------|------------|
|                            |                   | .Sa     | ample ID | F-BH120    | F-BH120    |
|                            |                   |         | Depth    | 3.50       | 5.50       |
|                            |                   |         | Other ID |            |            |
|                            |                   | Sam     | ple Type | ES         | ES         |
|                            |                   | Samp    | ing Date | 02/08/2022 | 02/08/2022 |
|                            |                   | Sampl   | ing Time | 1400       | 1500       |
| Test                       | Method            | LOD     | Units    |            |            |
| Preparation                |                   |         |          |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |         |          | Y          | Y          |
| Metals                     |                   |         |          |            |            |
| Aluminium, Dissolved       | <b>DETSC 2306</b> | 10      | ug/l     | 18         | 350        |
| Beryllium, Dissolved       | DETSC 2306*       | 0.1     | ug/l     | < 0.1      | < 0.1      |
| Manganese, Dissolved       | DETSC 2306        | 0.22    | ug/l     | 5.6        | 1.5        |
| Molybdenum, Dissolved      | DETSC 2306        | 1.1     | ug/l     | 3.9        | 16         |
| Phosphorus as P, Dissolved | DETSC 2306        | 18      | ug/l     | 19         | 51         |
| Tin, Dissolved             | DETSC 2306*       | 0.4     | ug/l     | < 0.4      | < 0.4      |
| Vanadium, Dissolved        | <b>DETSC 2306</b> | 0.6     | ug/l     | 18         | 16         |
| Inorganics                 |                   |         |          |            |            |
| Chloride                   | DETSC 2055        | 0.1     | mg/l     | 3.1        | 3.4        |
| Fluoride                   | DETSC 2055*       | 0.1     | mg/l     | 0.36       | < 0.10     |
| Ortho Phosphate as P       | DETSC 2205        | 0.01    | mg/l     | 0.02       | 0.05       |



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-18373 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|                       | Date  |  |  | container for  |
|-----------------------|---|--|--|--|
| Sample ID             | Sampled   | <b>Containers Received</b>   | Holding time exceeded for tests  | tests  |
| F-BH120 3.50 SOIL     | 02/08/22  | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)   |  |
| F-BH120 5.50 SOIL     | 02/08/22  | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)   |  |
| F-BH120 3.50 LEACHATE | 02/08/22  | GJ 250ml, GJ 60ml, PT 1L   |  |  |
| F-BH120 5.50 LEACHATE | 02/08/22  | GJ 250ml, GJ 60ml, PT 1L   |  |  |
|                       | Sample ID   F-BH120 3.50 SOIL   F-BH120 5.50 SOIL   F-BH120 3.50 LEACHATE   F-BH120 5.50 LEACHATE | Date   Sample ID Sampled   F-BH120 3.50 SOIL 02/08/22   F-BH120 5.50 SOIL 02/08/22   F-BH120 3.50 LEACHATE 02/08/22   F-BH120 5.50 LEACHATE 02/08/22 | Date   Sample ID Sampled Containers Received   F-BH120 3.50 SOIL 02/08/22 GJ 250ml, GJ 60ml, PT 1L   F-BH120 5.50 SOIL 02/08/22 GJ 250ml, GJ 60ml, PT 1L   F-BH120 3.50 LEACHATE 02/08/22 GJ 250ml, GJ 60ml, PT 1L   F-BH120 5.50 LEACHATE 02/08/22 GJ 250ml, GJ 60ml, PT 1L | Date Holding time exceeded for tests   Sample ID Sampled Containers Received Holding time exceeded for tests   F-BH120 3.50 SOIL 02/08/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days)   F-BH120 5.50 SOIL 02/08/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days)   F-BH120 3.50 LEACHATE 02/08/22 GJ 250ml, GJ 60ml, PT 1L FOR THE CONTRACT OF THE CONTR |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Issued: 23-Sep-22

Certificate Number 22-18376 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-18376
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 7 Soil samples, 4 Leachate samples.
  - Date Received 11-Aug-22
  - Date Started 16-Sep-22
- Date Completed 23-Sep-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood.

Kirk Bridgewood General Manager





|                          |             |        | Lab No   | 2058956    | 2058957    | 2058958    | 2058959    | 2058960    | 2058961    | 2058962    |
|--------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|------------|
|                          |             | .Sa    | mple ID  | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH130    | F-BH130    | F-BH130    |
|                          |             |        | Depth    | 3.80       | 4.80       | 5.30       | 6.30       | 4.25       | 6.60       | 9.00       |
|                          |             | (      | Other ID |            |            |            |            |            |            |            |
|                          |             | Sam    | ple Type | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       | SOIL       |
|                          |             | Sampl  | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 |
|                          |             | Sampli | ing Time | 1000       | 1030       | 1100       | 1130       | 1300       | 1400       | 1500       |
| Test                     | Method      | LOD    | Units    |            |            |            |            |            |            |            |
| Metals                   |             |        |          |            |            |            |            |            |            |            |
| Aluminium                | DETSC 2301* | 1      | mg/kg    | 43000      | 5000       | 1700       | 9100       | 18000      | 1600       | 5600       |
| Iron                     | DETSC 2301  | 25     | mg/kg    | 5100       | 300000     | 10000      | 33000      | 43000      | 8500       | 14000      |
| Manganese                | DETSC 2301# | 20     | mg/kg    | 1500       | 3100       | 200        | 180        | 1300       | 230        | 140        |
| Molybdenum               | DETSC 2301# | 0.4    | mg/kg    | 0.9        | 1.0        | 0.5        | 1.2        | 2.8        | 0.6        | 1.6        |
| Phosphorus               | DETSC 2301* | 1      | mg/kg    | 200        | 18000      | 300        | 730        | 1500       | 190        | 300        |
| Tin                      | DETSC 2301  | 1      | mg/kg    | < 1.0      | 1.8        | < 1.0      | < 1.0      | 6.1        | < 1.0      | < 1.0      |
| Inorganics               |             |        |          |            |            |            |            |            |            |            |
| Ammoniacal Nitrogen as N | DETSC 2119# | 0.5    | mg/kg    | 0.58       | 1.0        | 0.69       | 24         | 1.9        | 2.6        | 4.7        |
| Chloride                 | DETSC 2055  | 1      | mg/kg    | 5.3        | 36.9       | 3.8        | 50.9       | 3.6        | 11.0       | 39.0       |
| Fluoride                 | DETSC 2055  | 1      | mg/kg    | 1.4        | 1.4        | 1.1        | < 1.0      | 1.5        | < 1.0      | 1.4        |
| Ortho Phosphate as P     | DETSC 2205* | 0.1    | mg/kg    | < 0.10     | 5.8        | 0.32       | 7.0        | 0.40       | 0.22       | 0.49       |



## Summary of Chemical Analysis Leachate Samples

|                            | Lab No      |       |          | 2058963    | 2058964    | 2058965    | 2058966    |
|----------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                            | .Sample ID  |       |          | F-BH125    | F-BH125    | F-BH130    | F-BH130    |
|                            |             |       | Depth    | 4.80       | 5.30       | 4.25       | 6.60       |
|                            |             |       | Other ID |            |            |            |            |
|                            |             | Sam   | ple Type | LEACHATE   | LEACHATE   | LEACHATE   | LEACHATE   |
|                            |             | Sampl | ing Date | 04/08/2022 | 04/08/2022 | 04/08/2022 | 04/08/2022 |
|                            |             | Sampl | ing Time | 1030       | 1100       | 1300       | 1400       |
| Test                       | Method      | LOD   | Units    |            |            |            |            |
| Preparation                |             |       |          |            |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |       |          | Y          | Y          | Y          | Y          |
| Metals                     |             |       |          |            |            |            |            |
| Aluminium, Dissolved       | DETSC 2306  | 10    | ug/l     | 760        | 610        | 79         | 51         |
| Beryllium, Dissolved       | DETSC 2306* | 0.1   | ug/l     | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Manganese, Dissolved       | DETSC 2306  | 0.22  | ug/l     | 0.75       | 0.28       | 36         | 24         |
| Molybdenum, Dissolved      | DETSC 2306  | 1.1   | ug/l     | 6.8        | 3.6        | 2.5        | 1.4        |
| Phosphorus as P, Dissolved | DETSC 2306  | 18    | ug/l     | 600        | 170        | 100        | 26         |
| Tin, Dissolved             | DETSC 2306* | 0.4   | ug/l     | < 0.4      | < 0.4      | < 0.4      | < 0.4      |
| Vanadium, Dissolved        | DETSC 2306  | 0.6   | ug/l     | 52         | 12         | 1.7        | < 0.6      |
| Inorganics                 |             |       |          | -          |            |            |            |
| Chloride                   | DETSC 2055  | 0.1   | mg/l     | 1.8        | 2.8        | 0.88       | 0.89       |
| Fluoride                   | DETSC 2055* | 0.1   | mg/l     | 0.16       | 0.18       | 2.4        | 0.25       |
| Ortho Phosphate as P       | DETSC 2205  | 0.01  | mg/l     | 0.04       | 0.03       | 0.02       | 0.02       |



Inappropriate

### Information in Support of the Analytical Results

*Our Ref* 22-18376 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2058956 | F-BH125 3.80 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058957 | F-BH125 4.80 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058958 | F-BH125 5.30 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058959 | F-BH125 6.30 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058960 | F-BH130 4.25 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058961 | F-BH130 6.60 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058962 | F-BH130 9.00 SOIL     | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058963 | F-BH125 4.80 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058964 | F-BH125 5.30 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058965 | F-BH130 4.25 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058966 | F-BH130 6.60 LEACHATE | 04/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
|         |                       |          |                            |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Issued:

26-Sep-22

Certificate Number 22-18377

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-18377
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
  - Description One Soil sample.
  - Date Received 11-Aug-22
  - Date Started 16-Sep-22
- Date Completed 26-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lyemood

Kirk Bridgewood General Manager





|                          |             |       | Lab No   | 2058967    |
|--------------------------|-------------|-------|----------|------------|
|                          |             | .Sa   | ample ID | F-BH125    |
|                          |             |       | Depth    | 14.80      |
|                          |             |       | Other ID |            |
|                          |             | Sam   | ple Type | SOIL       |
|                          |             | Sampl | ing Date | 05/08/2022 |
|                          |             | Sampl | ing Time | 1600       |
| Test                     | Method      | LOD   | Units    |            |
| Metals                   |             |       |          |            |
| Aluminium                | DETSC 2301* | 1     | mg/kg    | 17000      |
| Iron                     | DETSC 2301  | 25    | mg/kg    | 42000      |
| Manganese                | DETSC 2301# | 20    | mg/kg    | 560        |
| Molybdenum               | DETSC 2301# | 0.4   | mg/kg    | 1.1        |
| Phosphorus               | DETSC 2301* | 1     | mg/kg    | 560        |
| Tin                      | DETSC 2301  | 1     | mg/kg    | < 1.0      |
| Inorganics               |             |       |          |            |
| Ammoniacal Nitrogen as N | DETSC 2119# | 0.5   | mg/kg    | 2.4        |
| Chloride                 | DETSC 2055  | 1     | mg/kg    | 266        |
| Fluoride                 | DETSC 2055  | 1     | mg/kg    | < 1.0      |
| Ortho Phosphate as P     | DETSC 2205* | 0.1   | mg/kg    | 0.16       |



### Information in Support of the Analytical Results

*Our Ref* 22-18377 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|  |   | Date   |  |  | Inappropriate<br>container for  |
|--|---|--|--|--|---|
| Lab No   | Sample ID   | Sampled  | <b>Containers Received</b>   | Holding time exceeded for tests  | tests   |
| 2058967  | F-BH125 14.80 SOIL  | 05/08/22   | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)   |   |
| Key: G-Glas<br>DETS canno<br>be deviating<br>Deviating Sa<br>etc are devi<br>no sampled<br>this will pre | s P-Plastic J-Jar T-Tub<br>It be held responsible for th<br>g. Deviating Sample criteria<br>amples'. All samples receive<br>iating due to the reasons sta<br>date (soils) or date+time (v<br>vent samples being reporte | e integrity of sar<br>are based on Br<br>ed are listed abov<br>ated. This means<br>waters) has been<br>ed as deviating w | mples received whereby the labo<br>itish and International standards<br>ve. However, those samples that<br>that the analysis is accredited w<br>supplied then samples are devia<br>where specific hold times are not | ratory did not undertake the sampling. In this instan<br>and laboratory trials in conjunction with the UKAS n<br>have additional comments in relation to hold time, i<br>here applicable, but results may be compromised du<br>ting. However, if you are able to supply a sampled d<br>exceeded and where the container supplied is suitab | ce samples received may<br>ote 'Guidance on<br>nappropriate containers<br>Je to sample deviations. If<br>ate (and time for waters)<br>Ie. |

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Issued: 26-Sep-22

Certificate Number 22-18381 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-18381
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 5 Soil samples, 2 Leachate samples.
  - Date Received 17-Aug-22
- Date Started 16-Sep-22
- Date Completed 26-Sep-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood.

Kirk Bridgewood General Manager





|                          |             |       | Lab No   | 2058982    | 2058983    | 2058984    | 2058985    | 2058986    |
|--------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|
|                          |             | .Sa   | ample ID | F-BH119    | F-BH119    | F-BH133    | F-BH133    | F-BH133    |
|                          |             |       | Depth    | 2.90       | 4.30       | 0.70       | 2.70       | 5.00       |
|                          |             |       | Other ID |            |            |            |            |            |
|                          |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         |
|                          |             | Sampl | ing Date | 09/08/2022 | 09/08/2022 | 09/08/2022 | 09/08/2022 | 09/08/2022 |
|                          |             | Sampl | ing Time | 1000       | 1200       | 1400       | 1430       | 0930       |
| Test                     | Method      | LOD   | Units    |            |            |            |            |            |
| Metals                   |             |       |          |            |            |            |            |            |
| Aluminium                | DETSC 2301* | 1     | mg/kg    | 8400       | 1200       | 16000      | 56000      | 1400       |
| Iron                     | DETSC 2301  | 25    | mg/kg    | 96000      | 7300       | 130000     | 70000      | 8800       |
| Manganese                | DETSC 2301# | 20    | mg/kg    | 27000      | 200        | 14000      | 1700       | 270        |
| Molybdenum               | DETSC 2301# | 0.4   | mg/kg    | 3.1        | 0.4        | 4.5        | 1.5        | 0.6        |
| Phosphorus               | DETSC 2301* | 1     | mg/kg    | 18000      | 170        | 6000       | 3000       | 240        |
| Tin                      | DETSC 2301  | 1     | mg/kg    | 4.9        | < 1.0      | 14         | 1.1        | < 1.0      |
| Inorganics               |             |       |          |            |            |            |            |            |
| Ammoniacal Nitrogen as N | DETSC 2119# | 0.5   | mg/kg    | 1.2        | 1.4        | 1.7        | 2.3        | 2.0        |
| Chloride                 | DETSC 2055  | 1     | mg/kg    | 70.1       | 33.2       | 26.8       | 38.4       | 7.0        |
| Fluoride                 | DETSC 2055  | 1     | mg/kg    | 22         | 2.4        | 24         | 9.9        | 2.9        |
| Ortho Phosphate as P     | DETSC 2205* | 0.1   | mg/kg    | 0.25       | 0.12       | 1.0        | 0.20       | 0.87       |



## Summary of Chemical Analysis Leachate Samples

|                            |                   | 2058987 | 2058988  |            |            |
|----------------------------|-------------------|---------|----------|------------|------------|
|                            |                   | .Sa     | ample ID | F-BH119    | F-BH133    |
|                            |                   |         | Depth    | 2.90       | 0.70       |
|                            |                   |         | Other ID |            |            |
|                            |                   | Sam     | ple Type | ES         | ES         |
|                            |                   | Sampl   | ing Date | 09/08/2022 | 09/08/2022 |
|                            |                   | Sampl   | ing Time | 1000       | 1400       |
| Test                       | Method            | LOD     | Units    |            |            |
| Preparation                |                   |         |          |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |         |          | Y          | Y          |
| Metals                     |                   |         |          |            |            |
| Aluminium, Dissolved       | <b>DETSC 2306</b> | 10      | ug/l     | 1200       | 180        |
| Beryllium, Dissolved       | DETSC 2306*       | 0.1     | ug/l     | < 0.1      | < 0.1      |
| Manganese, Dissolved       | DETSC 2306        | 0.22    | ug/l     | 0.26       | 7.0        |
| Molybdenum, Dissolved      | DETSC 2306        | 1.1     | ug/l     | 2.3        | 5.2        |
| Phosphorus as P, Dissolved | DETSC 2306        | 18      | ug/l     | 47         | 110        |
| Tin, Dissolved             | DETSC 2306*       | 0.4     | ug/l     | < 0.4      | < 0.4      |
| Vanadium, Dissolved        | <b>DETSC 2306</b> | 0.6     | ug/l     | 7.1        | 47         |
| Inorganics                 |                   |         |          |            |            |
| Chloride                   | DETSC 2055        | 0.1     | mg/l     | 5.2        | 3.4        |
| Fluoride                   | DETSC 2055*       | 0.1     | mg/l     | 1.2        | 0.94       |
| Ortho Phosphate as P       | DETSC 2205        | 0.01    | mg/l     | < 0.01     | 0.14       |



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-18381 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2058982 | F-BH119 2.90 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058983 | F-BH119 4.30 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058984 | F-BH133 0.70 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058985 | F-BH133 2.70 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058986 | F-BH133 5.00 SOIL     | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2058987 | F-BH119 2.90 LEACHATE | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2058988 | F-BH133 0.70 LEACHATE | 09/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Issued: 26-Sep-22

Certificate Number 22-18398 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-18398
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 4 Soil samples, 1 Leachate sample.
  - Date Received 30-Aug-22
- Date Started 16-Sep-22
- Date Completed 26-Sep-22
- *Test Procedures* Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood.

Kirk Bridgewood General Manager





|                          |             |        | Lab No   | 2059038    | 2059039    | 2059040    | 2059041    |
|--------------------------|-------------|--------|----------|------------|------------|------------|------------|
|                          |             | .Sa    | mple ID  | F-BH104    | F-BH104    | F-BH104    | F-BH104    |
|                          |             |        | Depth    | 3.00       | 4.00       | 6.00       | 15.75      |
|                          |             | (      | Other ID |            |            |            |            |
|                          |             | Sam    | ple Type | ES         | ES         | ES         | ES         |
|                          |             | Sampl  | ing Date | 17/08/2022 | 17/08/2022 | 17/08/2022 | 18/08/2022 |
|                          |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                     | Method      | LOD    | Units    |            |            |            |            |
| Metals                   |             |        |          |            |            |            |            |
| Aluminium                | DETSC 2301* | 1      | mg/kg    | 8900       | 6500       | 820        | 20000      |
| Iron                     | DETSC 2301  | 25     | mg/kg    | 94000      | 62000      | 4800       | 37000      |
| Manganese                | DETSC 2301# | 20     | mg/kg    | 1400       | 68000      | 120        | 570        |
| Molybdenum               | DETSC 2301# | 0.4    | mg/kg    | 2.3        | 1.4        | < 0.4      | 1.0        |
| Phosphorus               | DETSC 2301* | 1      | mg/kg    | 1500       | 16000      | 120        | 490        |
| Tin                      | DETSC 2301  | 1      | mg/kg    | 1.9        | 2.3        | < 1.0      | 1.1        |
| Inorganics               |             |        |          |            |            |            |            |
| Ammoniacal Nitrogen as N | DETSC 2119# | 0.5    | mg/kg    | 1.8        | 1.4        | 1.5        | 3.2        |
| Chloride                 | DETSC 2055  | 1      | mg/kg    | 31.7       | 29.6       | 45.5       | 321        |
| Fluoride                 | DETSC 2055  | 1      | mg/kg    | 1.5        | 5.8        | 1.2        | 4.2        |
| Ortho Phosphate as P     | DETSC 2205* | 0.1    | mg/kg    | 0.16       | < 0.10     | < 0.10     | 0.18       |



## **Summary of Chemical Analysis Leachate Samples**

|                            |             |       | Lab No    | 2059042    |
|----------------------------|-------------|-------|-----------|------------|
|                            |             | .S    | ample ID  | F-BH104    |
|                            |             |       | Depth     | 4.00       |
|                            |             |       | Other ID  |            |
|                            |             | Sam   | ple Type  | ES         |
|                            |             | Samp  | ling Date | 17/08/2022 |
|                            |             | Sampl | ing Time  | n/s        |
| Test                       | Method      | LOD   | Units     |            |
| Preparation                |             |       |           |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |       |           | Y          |
| Metals                     |             |       |           |            |
| Aluminium, Dissolved       | DETSC 2306  | 10    | ug/l      | < 10       |
| Beryllium, Dissolved       | DETSC 2306* | 0.1   | ug/l      | < 0.1      |
| Manganese, Dissolved       | DETSC 2306  | 0.22  | ug/l      | < 0.22     |
| Molybdenum, Dissolved      | DETSC 2306  | 1.1   | ug/l      | < 1.1      |
| Phosphorus as P, Dissolved | DETSC 2306  | 18    | ug/l      | < 18       |
| Tin, Dissolved             | DETSC 2306* | 0.4   | ug/l      | < 0.4      |
| Vanadium, Dissolved        | DETSC 2306  | 0.6   | ug/l      | < 0.6      |
| Inorganics                 |             |       |           |            |
| Chloride                   | DETSC 2055  | 0.1   | mg/l      | 3.8        |
| Fluoride                   | DETSC 2055* | 0.1   | mg/l      | 0.69       |
| Ortho Phosphate as P       | DETSC 2205  | 0.01  | mg/l      | 0.02       |



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-18398 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2059038 | F-BH104 3.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2059039 | F-BH104 4.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2059040 | F-BH104 6.00 SOIL     | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2059041 | F-BH104 15.75 SOIL    | 18/08/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2059042 | F-BH104 4.00 LEACHATE | 17/08/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Issued:

23-Sep-22

Certificate Number 22-18458

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-18458
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 3 Soil samples.
  - Date Received 16-Sep-22
  - Date Started 16-Sep-22
- Date Completed 23-Sep-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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Kirk Bridgewood General Manager





|                    |             |             | Lab No    | 2059320    | 2059321     | 2059322     |
|--------------------|-------------|-------------|-----------|------------|-------------|-------------|
|                    |             | .Sa         | ample ID  | F-BH104    | F-BH104     | F-BH104     |
|                    |             |             | Depth     | 6.75       | 12.00-12.70 | 14.30-15.00 |
|                    |             |             | Other ID  |            |             |             |
|                    |             | Sample Type |           |            |             | В           |
|                    |             | Samp        | ling Date | 17/08/2022 | 17/08/2022  | 17/08/2022  |
|                    |             | Sampl       | ing Time  | n/s        | n/s         | n/s         |
| Test               | Method      | LOD         | Units     |            |             |             |
| Inorganics         |             |             |           |            |             |             |
| Organic matter     | DETSC 2002# | 0.1         | %         |            |             | 0.5         |
| Carbonate (as CO2) | DETSC 2005  | 1           | %         | 2.8        | 4.3         |             |



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-18458 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | Date     |                            |                                   | container for |
|---------|--------------------------|----------|----------------------------|-----------------------------------|---------------|
| Lab No  | Sample ID                | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests   | tests         |
| 2059320 | F-BH104 6.75 SOIL        | 17/08/22 | PT 1L                      | Carbonate (28 days)               |               |
| 2059321 | F-BH104 12.00-12.70 SOIL | 17/08/22 | PT 1L                      | Carbonate (28 days)               |               |
| 2059322 | F-BH104 14.30-15.00 SOIL | 17/08/22 | PT 1L                      | Organic Matter (Manual) (28 days) |               |
|         |                          |          |                            |                                   |               |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Certificate Number 22-18467

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-18467
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 2 Soil samples.
  - Date Received 16-Sep-22
  - Date Started 16-Sep-22
- Date Completed 23-Sep-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk 23-Sep-22

Issued:



|                    |             |       | Lab No   | 2059346    | 2059347    |
|--------------------|-------------|-------|----------|------------|------------|
|                    |             | .Sa   | ample ID | F-BH115    | F-BH115    |
|                    |             |       | Depth    | 6.00-6.75  | 9.80-10.50 |
|                    |             |       | Other ID |            |            |
|                    |             | Sam   | ple Type | В          | В          |
|                    |             | Samp  | ing Date | 25/08/2022 | 25/08/2022 |
|                    |             | Sampl | ing Time | 1300       | 1300       |
| Test               | Method      | LOD   | Units    |            |            |
| Inorganics         |             |       |          |            |            |
| Organic matter     | DETSC 2002# | 0.1   | %        | 0.5        | 0.2        |
| Carbonate (as CO2) | DETSC 2005  | 1     | %        | 3.3        | 3.0        |



## Information in Support of the Analytical Results

*Our Ref* 22-18467 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|               |                                   | Date            | •   | Holding time<br>exceeded for | Inappropriate container for |
|---------------|-----------------------------------|-----------------|---|------------------------------|-----------------------------|
| Lab No        | Sample ID                         | Sampled         | Containers Received   | tests                        | tests                       |
| 2059346       | F-BH115 6.00-6.75 SOIL            | 25/08/22        | PT 1L   |                              |                             |
| 2059347       | F-BH115 9.80-10.50 SOIL           | 25/08/22        | PT 1L   |                              |                             |
| Key: P-Plast  | tic T-Tub                         |                 |   |                              |                             |
| DETS canno    | ot be held responsible for the in | ntegrity of sar | nples received whereby the laboratory did not undertake the sampling.       | In this instance san         | nples received may          |
| be deviatin   | g. Deviating Sample criteria are  | e based on Bri  | itish and International standards and laboratory trials in conjunction with | th the UKAS note 'G          | uidance on                  |
| Deviating S   | amples'. All samples received a   | are listed abov | ve. However, those samples that have additional comments in relation t      | to hold time, inappr         | opriate containers          |
| etc are devi  | iating due to the reasons state   | d. This means   | that the analysis is accredited where applicable, but results may be cor    | mpromised due to s           | ample deviations. If        |
| no sampled    | date (soils) or date+time (wat    | ers) has been   | supplied then samples are deviating. However, if you are able to supply     | y a sampled date (a          | nd time for waters)         |
| this will pre | event samples being reported a    | as deviating w  | here specific hold times are not exceeded and where the container sup       | plied is suitable.           |                             |
|               |                                   |                 |   |                              |                             |

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



Issued: 05-Oct-22

Certificate Number 22-18803 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-18803
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - Description 5 Soil samples, 3 Leachate samples.
  - Date Received 22-Sep-22
  - Date Started 22-Sep-22
- Date Completed 05-Oct-22
- *Test Procedures* Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

legenood.

Kirk Bridgewood General Manager



# *i* DETS

## Summary of Chemical Analysis Soil Samples

|                                 |             |        | Lab No   | 2061468    | 2061469    | 2061470    | 2061471    | 2061472    |
|---------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|
|                                 |             | .Sa    | mple ID  | F-BH114    | F-BH114    | F-BH114    | F-BH114    | F-BH114    |
|                                 |             |        | Depth    | 0.50       | 1.80       | 2.80       | 3.80       | 5.80       |
|                                 |             | (      | Other ID |            |            |            |            |            |
|                                 |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         |
|                                 |             | Sampl  | ing Date | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 |
|                                 |             | Sampli | ing Time | 1000       | 0900       | 0930       | 1000       | 1103       |
| Test                            | Method      | LOD    | Units    |            |            |            |            |            |
| Asbestos Quantification         | DETSC 1102  | 0.001  | %        | 0.002      |            |            |            |            |
| Preparation                     |             |        |          |            |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 6.5        | 6.6        | 2.5        | 4.3        | 23         |
| Metals                          |             |        |          |            |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg    | 33000      | 21000      |            | 37000      |            |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 13         | 24         | 9.1        | 5.9        | 7.5        |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 3.6        | 2.3        | 0.2        | 5.8        | < 0.2      |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 7.7        | 2.3        | 0.4        | 7.6        | 0.8        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 0.4        | 0.4        | < 0.1      | < 0.1      | < 0.1      |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 42         | 120        | 6.8        | 9.9        | 3.3        |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 23         | 70         | 4.9        | 5.0        | 3.6        |
| Iron                            | DETSC 2301  | 25     | mg/kg    | 19000      | 42000      |            | 4100       |            |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 35         | 67         | 19         | 8.8        | 19         |
| Manganese                       | DETSC 2301# | 20     | mg/kg    | 16000      | 3800       |            | 1300       |            |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | 0.05       | < 0.05     | < 0.05     | < 0.05     | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    | 1.9        | 1.9        |            | 0.8        |            |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 7.5        | 20         | 4.2        | 1.4        | 3.1        |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 650        | 1900       |            | 92         |            |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 5.4        | 1.5        | < 0.5      | 3.0        | < 0.5      |
| Tin                             | DETSC 2301  | 1      | mg/kg    | 3.0        | 7.4        |            | 1.0        |            |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 150        | 270        | 30         | 37         | 12         |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 140        | 130        | 28         | 8.6        | 19         |
| Inorganics                      | 1           |        |          |            |            |            |            |            |
| рН                              | DETSC 2008# |        | рН       | 10.6       | 10.5       | 8.6        | 10.9       | 7.7        |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | 0.5        | 0.2        | < 0.1      | < 0.1      | 0.1        |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | 1.0        | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 0.7        | 1.7        | < 0.1      | 0.4        | 0.2        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 0.74       | 1.1        |            | 0.79       |            |
| Chloride                        | DETSC 2055  | 1      | mg/kg    | 363        | 87.6       |            | 9.6        |            |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    | < 1.0      | 4.1        |            | 4.8        |            |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | < 1.0      | 7.0        | 7.6        | < 1.0      | < 1.0      |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | 0.54       | 0.16       |            | 0.13       |            |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     |          | 1600       | 1200       | 83         | 630        | 160        |
| Sulphide                        | DETSC 2074* | 10     | mg/kg    | 1400       | 950        | 170        | 2100       | 160        |
| Sulphuc<br>Sulphur (free)       | DETSC 2024  | 0.75   | mg/kg    | 17         | 60         | 3.8        | 2100       | 2 5        |
| Sulphur as § Total              | DETSC 3330  | 0.75   | 0/       | 0.75       | 0.20       | 0.04       | 0.41       | 0.06       |
| Sulphoto og COA Totol           | DETSC 2320  | 0.01   | 70       | 0.75       | 0.59       | 0.04       | 0.41       | 0.00       |
| Sulphate as SO4, IOtal          | DEISC 2321# | 0.01   | %        | 2.8        | 1.4        | 0.12       | 0.91       | 0.13       |
| Aliphotia CE CE US 15 AL        |             | 0.01   | no - /1. | - 0.04     | - 0.04     | 10.04      | 10.04      | 10.04      |
|                                 | DEISC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL      | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |

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## **Summary of Chemical Analysis** Soil Samples

|                                       |             |        | Lab No         | 2061468    | 2061469    | 2061470    | 2061471    | 2061472    |
|---------------------------------------|-------------|--------|----------------|------------|------------|------------|------------|------------|
|                                       |             | .Sa    | mple ID        | F-BH114    | F-BH114    | F-BH114    | F-BH114    | F-BH114    |
|                                       |             |        | Depth          | 0.50       | 1.80       | 2.80       | 3.80       | 5.80       |
|                                       |             | (      | Other ID       |            |            |            |            |            |
|                                       |             | Sam    | ple Type       | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampl  | ing Date       | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 |
| Test                                  | Mathad      | Sampli | ng Time        | 1000       | 0900       | 0930       | 1000       | 1103       |
| Aliphatic C10 C12: EH CH 1D AL        |             | 1 5    | Units<br>ma/ka | < 1 E      | < 1 E      | < 1 E      | < 1 E      | < 1 E      |
|                                       | DETSC 3072# | 1.5    | mg/kg          | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
|                                       | DETSC 3072# | 1.2    | mg/kg          | < 1.2      | < 1.2      | < 1.2      | < 1.2      | < 1.2      |
|                                       | DETSC 3072# | 1.5    | mg/kg          | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
|                                       | DETSC 3072# | 3.4    | mg/кg          | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4    | mg/kg          | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10     | mg/kg          | < 10       | < 10       | < 10       | < 10       | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg          | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg          | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg          | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9    | mg/kg          | < 0.9      | < 0.9      | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5    | mg/kg          | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6    | mg/kg          | < 0.6      | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4    | mg/kg          | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4    | mg/kg          | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10     | mg/kg          | < 10       | < 10       | < 10       | < 10       | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10     | mg/kg          | < 10       | < 10       | < 10       | < 10       | < 10       |
| PAHs                                  |             |        |                |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg          | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg          | 0.03       | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg          | 0.10       | 0.06       | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg          | 0.30       | 0.31       | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg          | 0.17       | 0.25       | < 0.03     | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg          | 0.54       | 0.39       | < 0.03     | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg          | 0.14       | 0.10       | < 0.03     | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg          | 0.19       | 0.15       | < 0.03     | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg          | 0.49       | 0.36       | < 0.03     | < 0.03     | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg          | 0.04       | 0.03       | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg          | 1.5        | 0.73       | < 0.03     | < 0.03     | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg          | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg          | 0.15       | 0.10       | < 0.03     | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg          | 0.04       | 0.04       | < 0.03     | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg          | 0.97       | 0.29       | < 0.03     | < 0.03     | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg          | 0.93       | 0.66       | < 0.03     | < 0.03     | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg          | 5.6        | 3.4        | < 0.10     | < 0.10     | < 0.10     |



|                        | Lab No      |       | 2061468  | 2061469    | 2061470    | 2061471    | 2061472    |            |
|------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|
|                        |             | .Sa   | ample ID | F-BH114    | F-BH114    | F-BH114    | F-BH114    | F-BH114    |
|                        |             |       | Depth    | 0.50       | 1.80       | 2.80       | 3.80       | 5.80       |
|                        |             |       | Other ID |            |            |            |            |            |
|                        |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         |
|                        |             | Sampl | ing Date | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 |
| <b>T</b> = -4          |             | Sampl | ing Time | 1000       | 0900       | 0930       | 1000       | 1103       |
|                        | wiethod     | LOD   | Units    |            |            |            |            |            |
|                        | DETSC 2401# | 0.01  | ma/ka    | < 0.01     |            |            | < 0.01     |            |
|                        | DETSC 2401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 32                 | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
|                        | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 153                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 138                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 180                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| РСВ 77                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 81                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 105                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 114                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 118                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 123                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 126                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 156                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 157                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 167                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 169                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 189                | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| PCB 7 Total            | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            |            | < 0.01     |            |
| Phenols                | 1           |       |          |            |            |            |            |            |
| Phenol - Monohydric    | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      | < 0.3      | 0.7        | < 0.3      |
| Subcontracted Analysis | 1           |       |          |            |            |            |            |            |
| Benzene                | \$*         | <2    | ug/kg    | 5          |            | <2         |            | <2         |
| Toluene                | \$*         | <5    | ug/kg    | <5         |            | <5         |            | <5         |
| Ethylbenzene           | \$*         | <2    | ug/kg    | <2         |            | <2         |            | <2         |
| p & m-xylene           | \$*         | <2    | ug/kg    | <2         |            | <2         |            | <2         |
| o-xylene               | \$*         | <2    | ug/kg    | <2         |            | <2         |            | <2         |
| МТВЕ                   | \$*         | <5    | ug/kg    | <5         |            | <5         |            | <5         |
| ТАМЕ                   | \$*         | < 5   | ug/kg    | < 5        |            | <5         |            | <5         |



## Summary of Chemical Analysis

Leachate Samples Our Ref 22-18803 Client Ref 60678042

Contract Title NZT Feed GI

|                            |                   | Lab No<br>Sample ID.<br>Depth |              | 2061473    | 2061474    | 2061475    |
|----------------------------|-------------------|-------------------------------|--------------|------------|------------|------------|
|                            |                   |                               |              | F-BH114    | F-BH114    | F-BH114    |
|                            |                   |                               |              | 0.50       | 1.80       | 3.80       |
|                            |                   |                               | Other ID     |            |            |            |
|                            |                   | Sam                           | ple Type     | ES         | ES         | ES         |
|                            |                   | Samp                          | ling Date    | 16/09/2022 | 16/09/2022 | 16/09/2022 |
|                            |                   | Sampl                         | ling Time    | 1000       | 0900       | 1000       |
| Test                       | Method            | LOD                           | Units        |            |            |            |
| Preparation                |                   |                               |              |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |                               |              | Y          | Y          | Y          |
| Metals                     |                   | 10                            |              | r          |            | r          |
| Aluminium, Dissolved       | DETSC 2306        | 10                            | ug/I         | 2.2        | 280        | 1.0        |
| Arsenic, Dissolved         | DETSC 2306        | 0.16                          | ug/I         | 3.3        | 2.0        | 1.0        |
| Beryllium, Dissolved       | DETSC 2306*       | 0.1                           | ug/I         | 170        | < 0.1      | 120        |
| Boron, Dissolved           | DETSC 2306*       | 12                            | ug/I         | 1/0        | 64         | 120        |
| Cadmium, Dissolved         | DETSC 2306        | 0.03                          | ug/I         | < 0.03     | < 0.03     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306*       | 1                             | ug/l         | < 1.0      | 1.1        | 1.7        |
| Chromium, Hexavalent       | DETSC 2203        | 0.007                         | mg/l         | < 0.007    | < 0.007    | < 0.007    |
| Copper, Dissolved          | DETSC 2306        | 0.4                           | ug/l         | 11         | 5.0        | 2.8        |
| Iron, Dissolved            | DETSC 2306        | 5.5                           | ug/l         | < 5.5      | < 5.5      | < 5.5      |
| Lead, Dissolved            | DETSC 2306        | 0.09                          | ug/l         | 25         | 24         | 20         |
| Manganese, Dissolved       | DETSC 2306        | 0.22                          | ug/l         |            | 2.4        |            |
| Mercury, Dissolved         | DETSC 2306        | 0.01                          | ug/l         | 0.02       | 0.07       | 0.03       |
| Molybdenum, Dissolved      | DETSC 2306        | 1.1                           | ug/l         |            | 5.8        |            |
| Nickel, Dissolved          | DETSC 2306        | 0.5                           | ug/l         | < 0.5      | < 0.5      | < 0.5      |
| Phosphorus as P, Dissolved | DETSC 2306        | 18                            | ug/l         |            | 46         |            |
| Selenium. Dissolved        | DETSC 2306        | 0.25                          | ug/l         | 1.3        | 1.4        | 9.1        |
| Tin. Dissolved             | DETSC 2306*       | 0.4                           | ug/l         |            | < 0.4      |            |
| Vanadium, Dissolved        | DETSC 2306        | 0.6                           | ug/l         |            | 45         |            |
| Zinc Dissolved             | DETSC 2306        | 13                            |              | < 1 3      | < 1.3      | < 1 3      |
|                            | 021002000         | 1.0                           | ~8/ i        | 110        | . 1.0      | 12.0       |
| nH                         | DETSC 2008        |                               | nH           | 94         | 95         | 10.6       |
| Cvanide Total Low Level    | DETSC 2131        | 01                            | ייק<br>ווס/ו | 1.8        | 0.5        | 0.2        |
| Cvanide, Free Low Level    | DETSC 2131        | 0.1                           | روب<br>اروب  | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                | DETSC 2131        | 20                            | μσ/I         | 150        | 30         | < 20       |
| Total Hardness as CaCO3    | DETSC 2202        | 0.1                           | mg/l         | 516        | 257        | 126        |
| Ammoniacal Nitrogon as NH4 | DETSC 2303        | 0.1                           | mg/l         | 0.00       | 0.11       | < 0.02     |
|                            | DETSC 2207        | 0.015                         | mg/l         | 0.08       | 0.11       | < 0.02     |
|                            | DETSC 2207        | 0.015                         | mg/i         | 0.078      | 0.11       | < 0.015    |
| Ammoniacai Nitrogen as N   | DETSC 2207        | 0.015                         | mg/I         | 0.064      | 0.087      | < 0.015    |
| Chloride                   | DETSC 2055        | 0.1                           | mg/I         |            | 13         |            |
| Fluoride                   | DETSC 2055*       | 0.1                           | mg/l         |            | < 0.10     |            |
| Nitrate as NO3             | DETSC 2055        | 0.1                           | mg/l         | < 0.10     | 0.99       | < 0.10     |
| Nitrite as NO2             | DETSC 2055        | 0.1                           | mg/l         | 0.48       | < 0.10     | < 0.10     |
| Ortho Phosphate as P       | DETSC 2205        | 0.01                          | mg/l         |            | < 0.01     |            |
| Sulphate as SO4            | DETSC 2055        | 0.1                           | mg/l         | 560        | 310        | 22         |
| Total Organic Carbon       | <b>DETSC 2085</b> | 1                             | mg/l         | 11         | 6.2        | 5.6        |
| Petroleum Hydrocarbons     |                   |                               |              |            |            |            |
| Aliphatic C5-C6: HS_1D_AL  | DETSC 3322        | 0.1                           | ug/l         |            | < 0.1      |            |
| Aliphatic C6-C8: HS 1D AL  | DETSC 3322        | 0.1                           | ug/l         |            | < 0.1      |            |

# *i* DETS

## Summary of Chemical Analysis

## **Leachate Samples**

|   |             | Lab No                  |          | 2061473    | 2061474    | 2061475    |
|---|-------------|-------------------------|----------|------------|------------|------------|
|   |             | .S                      | ample ID | F-BH114    | F-BH114    | F-BH114    |
|   |             | Depth                   |          | 0.50       | 1.80       | 3.80       |
|   |             | Other ID<br>Sample Type |          |            |            |            |
|   |             |                         |          | ES         | ES         | ES         |
|   |             | Sampling Date           |          | 16/09/2022 | 16/09/2022 | 16/09/2022 |
| _   |             | Sampl                   | ing Time | 1000       | 0900       | 1000       |
| Test  | Method      | LOD                     | Units    |            |            |            |
| Aliphatic C8-C10: HS_1D_AL                  | DETSC 3322  | 0.1                     | ug/l     |            | < 0.1      |            |
| Aliphatic C10-C12: EH_CU_1D_AL              | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aliphatic C12-C16: EH_CU_1D_AL              | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aliphatic C16-C21: EH_CU_1D_AL              | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aliphatic C21-C35: EH_CU_1D_AL              | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aliphatic C5-C35: EH_CU+HS_1D_AL            | DETSC 3072* | 10                      | ug/l     |            | < 10       |            |
| Aromatic C5-C7: HS_1D_AR                    | DETSC 3322  | 0.1                     | ug/l     |            | < 0.1      |            |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3322  | 0.1                     | ug/l     |            | < 0.1      |            |
| Aromatic C8-C10: HS_1D_AR                   | DETSC 3322  | 0.1                     | ug/l     |            | < 0.1      |            |
| Aromatic C10-C12: EH_CU_1D_AR               | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aromatic C12-C16: EH_CU_1D_AR               | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aromatic C16-C21: EH_CU_1D_AR               | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aromatic C21-C35: EH_CU_1D_AR               | DETSC 3072* | 1                       | ug/l     |            | < 1.0      |            |
| Aromatic C5-C35: EH_CU+HS_1D_AR             | DETSC 3072* | 10                      | ug/l     |            | < 10       |            |
| TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total | DETSC 3072* | 10                      | ug/l     |            | < 10       |            |
| Benzene                                     | DETSC 3322  | 1                       | ug/l     |            | < 1.0      |            |
| Toluene                                     | DETSC 3322  | 1                       | ug/l     |            | < 1.0      |            |
| Ethylbenzene                                | DETSC 3322  | 1                       | ug/l     |            | < 1.0      |            |
| Xvlene                                      | DETSC 3322  | 1                       | ug/l     |            | < 1.0      |            |
| PAHs  |             |                         | 10       |            | _          |            |
| Acenaphthene                                | DETSC 3304  | 0.01                    | ug/l     | < 0.01     | 0.02       | < 0.01     |
| Acenaphthylene                              | DETSC 3304  | 0.01                    | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Anthracene                                  | DETSC 3304  | 0.01                    | ug/l     | 0.03       | 0.01       | < 0.01     |
| Benzo(a)anthracene                          | DETSC 3304* | 0.01                    | ug/l     | 0.02       | 0.03       | < 0.01     |
| Benzo(a)pyrene                              | DETSC 3304  | 0.01                    | ug/l     | 0.01       | 0.02       | < 0.01     |
| Benzo(b)fluoranthene                        | DETSC 3304  | 0.01                    | ug/l     | 0.02       | 0.04       | < 0.01     |
| Benzo(g.h.i)pervlene                        | DETSC 3304  | 0.01                    | ug/l     | 0.01       | 0.02       | < 0.01     |
| Benzo(k)fluoranthene                        | DETSC 3304  | 0.01                    | ug/l     | 0.01       | 0.03       | < 0.01     |
| Chrysene                                    | DETSC 3304  | 0.01                    | ug/l     | 0.02       | 0.03       | < 0.01     |
| Dibenzo(a.h)anthracene                      | DETSC 3304  | 0.01                    | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Fluoranthene                                | DETSC 3304  | 0.01                    | ug/l     | 0.06       | 0.06       | < 0.01     |
| Fluorene                                    | DETSC 3304  | 0.01                    | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Indeno(1,2,3-c,d)pvrene                     | DETSC 3304  | 0.01                    | ug/l     | < 0.01     | 0.01       | < 0.01     |
| Naphthalene                                 | DETSC 3304  | 0.05                    | ug/l     | 0.06       | < 0.05     | < 0.05     |
| Phenanthrene                                | DETSC 3304  | 0.01                    | ug/l     | 0.10       | 0.03       | < 0.01     |
| Pyrene                                      | DETSC 3304  | 0.01                    | ug/l     | 0.04       | 0.05       | < 0.01     |
| PAH Total                                   | DETSC 3304  | 0.2                     | ug/l     | 0.39       | 0.34       | < 0.20     |



## Summary of Chemical Analysis

## **Leachate Samples**

|                         |             | Lab No                           |          | 2061473    | 2061474    | 2061475    |
|-------------------------|-------------|----------------------------------|----------|------------|------------|------------|
|                         |             | .Sample ID                       |          | F-BH114    | F-BH114    | F-BH114    |
|                         |             | Depth<br>Other ID<br>Sample Type |          | 0.50       | 1.80       | 3.80       |
|                         |             |                                  |          |            |            |            |
|                         |             |                                  |          | ES         | ES         | ES         |
|                         |             | Samp                             | ing Date | 16/09/2022 | 16/09/2022 | 16/09/2022 |
| <b>_</b> .              |             | Sampl                            | ing Time | 1000       | 0900       | 1000       |
| Test                    | Method      | LOD                              | Units    |            |            |            |
| PCBS                    |             | 0.0                              |          |            |            |            |
| PCB 28 + PCB 31         | DETSC 3402  | 0.3                              | ug/i     |            | < 0.3      |            |
| PCB 52                  | DETSC 3402  | 0.2                              | ug/I     |            | < 0.2      |            |
| PCB 77                  | DETSC 3402  | 0.3                              | ug/l     |            | < 0.3      |            |
| PCB 81                  | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 101                 | DETSC 3402  | 0.3                              | ug/l     |            | < 0.3      |            |
| PCB 105                 | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 114                 | DETSC 3402  | 0.3                              | ug/l     |            | < 0.3      |            |
| PCB 118 + PCB 123       | DETSC 3402  | 0.6                              | ug/l     |            | < 0.6      |            |
| PCB 126                 | DETSC 3402  | 0.5                              | ug/l     |            | < 0.5      |            |
| PCB 138                 | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 153                 | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 156                 | DETSC 3402  | 0.3                              | ug/l     |            | < 0.3      |            |
| PCB 157                 | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 167                 | DETSC 3402  | 0.3                              | ug/l     |            | < 0.3      |            |
| PCB 169                 | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 180                 | DETSC 3402  | 0.2                              | ug/l     |            | < 0.2      |            |
| PCB 189                 | DETSC 3402  | 0.3                              | ug/l     |            | < 0.3      |            |
| PCB 12                  | DETSC 3402  | 1                                | ug/l     |            | < 1.0      |            |
| PCB 7 Total             | DETSC 3402  | 1                                | ug/l     |            | < 1.0      |            |
| Phenols                 |             |                                  |          |            |            |            |
| Phenol                  | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| p-cresol                | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.1                              | ug/l     |            | < 0.10     |            |

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## Summary of Asbestos Analysis Soil Samples

Our Ref 22-18803 Client Ref 60678042 Contract Title NZT Feed GI

| Lab No  | Sample ID    | Material Type | Result  | Comment*                         | Analyst   |
|---------|--------------|---------------|---------|----------------------------------|-----------|
| 2061468 | F-BH114 0.50 | SOIL          | Amosite | Amosite present as fibre bundles | Josh Best |
| 2061469 | F-BH114 1.80 | SOIL          | NAD     | none                             | Josh Best |
| 2061470 | F-BH114 2.80 | SOIL          | NAD     | none                             | Josh Best |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* -not included in laboratory scope of accreditation.



## Summary of Asbestos Quantification Analysis Soil Samples

*Our Ref* 22-18803 *Client Ref* 60678042 *Contract Title* NZT Feed GI

|   |            | 2061468    |            |  |  |
|---|------------|------------|------------|--|--|
|   |            | F-BH114    |            |  |  |
|   |            | 0.50       |            |  |  |
|   |            | Other ID   |            |  |  |
|   | Sar        | nple Type  | ES         |  |  |
|   | Sam        | pling Date | 16/09/2022 |  |  |
|   | Sam        | oling Time | 1000       |  |  |
| Test  | Method     | Units      |            |  |  |
| Total Mass% Asbestos (a+b+c)  | DETSC 1102 | Mass %     | 0.002      |  |  |
| Gravimetric Quantification (a)  | DETSC 1102 | Mass %     | na         |  |  |
| Detailed Gravimetric Quantification (b)                               | DETSC 1102 | Mass %     | 0.002      |  |  |
| Quantification by PCOM (c)  | DETSC 1102 | Mass %     | na         |  |  |
| Potentially Respirable Fibres (d)                                     | DETSC 1102 | Fibres/g   | na         |  |  |
| Breakdown of Gravimetric Analysis (a)                                 |            |            |            |  |  |
| Mass of Sample  |            | g          | 26.51      |  |  |
| ACMs present*   |            | type       |            |  |  |
| Mass of ACM in sample   |            | g          |            |  |  |
| % ACM by mass   |            | %          |            |  |  |
| % asbestos in ACM   |            | %          |            |  |  |
| % asbestos in sample  |            | %          |            |  |  |
| Breakdown of Detailed Gravimetric Analysis (b)                        |            |            |            |  |  |
| % Amphibole bundles in sample   |            | Mass %     | 0.002      |  |  |
| % Chrysotile bundles in sample  |            | Mass %     | na         |  |  |
| Breakdown of PCOM Analysis (c)  |            |            |            |  |  |
| % Amphibole fibres in sample  |            | Mass %     | na         |  |  |
| % Chrysotile fibres in sample   |            | Mass %     | na         |  |  |
| Breakdown of Potentially Respirable Fibre Analysis (d)                |            |            |            |  |  |
| Amphibole fibres  |            | Fibres/g   | na         |  |  |
| Chrysotile fibres   |            | Fibres/g   | na         |  |  |
| * Denotes test or material description outside of UKAS accreditation. |            |            |            |  |  |

% asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264. Recommended sample size for quantification is approximately 1kg

# denotes deviating sample


Inappropriate

## Information in Support of the Analytical Results

Our Ref 22-18803 Client Ref 60678042 Contract NZT Feed GI

## **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2061468 | F-BH114 0.50 SOIL     | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  | Ammonia (3 days)                |               |
| 2061469 | F-BH114 1.80 SOIL     | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  | Ammonia (3 days)                |               |
| 2061470 | F-BH114 2.80 SOIL     | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  |                                 |               |
| 2061471 | F-BH114 3.80 SOIL     | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  | Ammonia (3 days)                |               |
| 2061472 | F-BH114 5.80 SOIL     | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  |                                 |               |
| 2061473 | F-BH114 0.50 LEACHATE | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  |                                 |               |
| 2061474 | F-BH114 1.80 LEACHATE | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  |                                 |               |
| 2061475 | F-BH114 3.80 LEACHATE | 16/09/22 | GJ 250ml, GJ 500ml, PT 1L  |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

## List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

## Det

Aliphatic C5-C6 Aliphatic C6-C8 Aliphatic C8-C10 Aliphatic C10-C12 Aliphatic C12-C16 Aliphatic C16-C21 Aliphatic C21-C35 Aliphatic C35-C40 Aliphatic C5-C40 Aromatic C5-C7 Aromatic C7-C8 Aromatic C8-C10 Aromatic C10-C12 Aromatic C12-C16 Aromatic C16-C21 Aromatic C21-C35 Aromatic C35-C40 Aromatic C5-C40 TPH Ali/Aro C5-C40 Aliphatic C5-C35 Aromatic C5-C35 TPH Ali/Aro Total C5-C35 Acronym HS 1D AL HS\_1D\_AL HS 1D AL EH\_CU\_1D\_AL EH\_CU\_1D\_AL EH CU 1D AL EH\_CU\_1D\_AL EH CU 1D AL EH\_CU+HS\_1D\_AL HS\_1D\_AR HS\_1D\_AR HS\_1D\_AR EH\_CU\_1D\_AR EH\_CU\_1D\_AR EH\_CU\_1D\_AR EH CU 1D AR EH CU 1D AR EH\_CU+HS\_1D\_AR EH\_CU+HS\_1D\_Total EH\_CU+HS\_1D\_AL EH\_CU+HS\_1D\_AR EH\_CU+HS\_1D\_Total

End of Report



Issued:

20-Oct-22

Certificate Number 22-19109

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-19109
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 4 Soil samples.
  - Date Received 27-Sep-22
  - Date Started 27-Sep-22
- Date Completed 20-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

hurod

Kirk Bridgewood General Manager



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|                                 |             |        | Lab No   | 2063354    | 2063355    | 2063356    | 2065445    |
|---------------------------------|-------------|--------|----------|------------|------------|------------|------------|
|                                 |             | .Sa    | ample ID | F-BH114    | CR-TP112   | CR-TP112   | F-BH114    |
|                                 |             |        | Depth    | 13.20      | 0.30       | 2.30       | 20.30      |
|                                 |             |        | Other ID |            |            |            |            |
|                                 |             | Sam    | ple Type | ES         | ES         | ES         | ES         |
|                                 |             | Sampl  | ing Date | 20/09/2022 | 20/09/2022 | 20/09/2022 | 20/09/2022 |
|                                 |             | Sampli | ing Time | 1200       | n/s        | n/s        | 1500       |
| Test                            | Method      | LOD    | Units    |            |            |            |            |
| Preparation                     |             |        |          |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 26         | 7.1        |            | 11         |
| Metals                          |             |        |          |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg    |            |            |            | 12000      |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 9.1        | 13         |            | 8.5        |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 1.0        | 0.5        |            | 0.6        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 5.9        | 0.8        |            | 2.8        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 0.1        | 0.5        |            | < 0.1      |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 37         | 36         |            | 17         |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      |            | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 21         | 38         |            | 21         |
| Iron                            | DETSC 2301  | 25     | mg/kg    |            |            |            | 21000      |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 21         | 74         |            | 5.9        |
| Manganese                       | DETSC 2301# | 20     | mg/kg    |            |            |            | 450        |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05     | < 0.05     |            | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    |            |            |            | 0.5        |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 33         | 22         |            | 21         |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    |            |            |            | 890        |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | < 0.5      | 4.0        |            | < 0.5      |
| Tin                             | DETSC 2301  | 1      | mg/kg    |            |            |            | 1.0        |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 59         | 69         |            | 21         |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 80         | 190        |            | 24         |
| Inorganics                      |             |        |          |            |            |            |            |
| рН                              | DETSC 2008# |        | рН       | 8.5        | 8.2        |            | 9.1        |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | 0.2        | 0.6        |            | 0.3        |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      |            | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | 0.9        | < 0.6      |            | 4.1        |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 3.3        | 0.5        |            | 1.2        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    |            |            |            | 6.2        |
| Chloride                        | DETSC 2055  | 1      | mg/kg    |            |            |            | 75.5       |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    |            |            |            | 36         |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | < 1.0      | < 1.0      |            | 17         |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    |            |            |            | 0.15       |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 450        | 730        |            | 260        |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 76         | 160        |            | 24         |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 2.8        | 1.1        |            | < 0.75     |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.56       | 0.11       |            | 0.53       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 0.18       | 0.30       |            | 0.10       |

# *Iib***ETS**

# Summary of Chemical Analysis Soil Samples

| Sample ID         F-BH114         CR-TP112         F-BH114           Depth         13.20         0.30         2.30           Other ID           Sample Type         ES         ES         20/09/2022         20   |
|--|
| Depth<br>Other ID         13.20         0.30         2.30         20.30           Sample Type         ES         ES         ES         ES         ES           Sampling Date<br>Sampling Time         1200         n/s         n/s         1500           Test         Method         LOD         Units         0.01         <0.01   |
| Other ID         Other ID         Es         Main         Januard         Januard </td   |
| Sample Type<br>Sampling Date<br>Sampling Date<br>Sampling Date<br>Sampling Time         Es         Date<br>Sampling Time         Sampling Time <th< td=""></th<> |
| Sampling Date<br>Sampling Time         20/09/2022         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01         20/01  |
| Sampling Time         1200         n/s         n/s         1500           Test         Method         LOD         Units           Petroleum Hydrocarbons         Aliphatic C5-C6: HS_1D_AL         DETSC 3321*         0.01         mg/kg         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01         <0.01  |
| Test         Method         LOD         Units           Petroleum Hydrocarbons         Aliphatic C5-C6: HS_1D_AL         DETSC 3321*         0.01         mg/kg         < 0.01   |
| Petroleum Hydrocarbons           Aliphatic CS-C6: HS_1D_AL         DETSC 3321*         0.01         mg/kg         < 0.01   |
| Aliphatic CS-C6: HS_1D_AL         DETSC 3321*         0.01         mg/kg         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01         < 0.01   |
| Aliphatic C6-C8: HS_1D_AL       DETSC 3321*       0.01       mg/kg       < 0.01  |
| Aliphatic C8-C10: HS_1D_AL       DETSC 3321*       0.01       mg/kg       < 0.01   |
| Aliphatic C10-C12: EH_CU_1D_AL       DETSC 3072#       1.5       mg/kg       < 1.5   |
| Aliphatic C12-C16: EH_CU_1D_AL       DETSC 3072#       1.2       mg/kg       < 1.2   |
| Aliphatic C16-C21: EH_CU_1D_AL       DETSC 3072#       1.5       mg/kg       < 1.5   |
| Aliphatic C21-C35: EH_CU_1D_AL       DETSC 3072#       3.4       mg/kg       < 3.4       190       < 3.4         Aliphatic C35-C40: EH_CU_1D_AL       DETSC 3072*       3.4       mg/kg       < 3.4  |
| Aliphatic C35-C40: EH_CU_1D_AL       DETSC 3072*       3.4       mg/kg       < 3.4   |
| Aliphatic C5-C40: EH_CU+HS_1D_AL       DETSC 3072*       10       mg/kg       < 10   |
| Aromatic C5-C7: HS_1D_ARDETSC 3321*0.01mg/kg< 0.01< 0.01< 0.01< 0.01Aromatic C7-C8: HS_1D_ARDETSC 3321*0.01mg/kg< 0.01   |
| Aromatic C7-C8: HS_1D_ARDETSC 3321*0.01mg/kg< 0.01< 0.01< 0.01< 0.01Aromatic C8-C10: HS_1D_ARDETSC 3321*0.01mg/kg< 0.01  |
| Aromatic C8-C10: HS_1D_ARDETSC 3321*0.01mg/kg< 0.01< 0.01< 0.01< 0.01< 0.01Aromatic C10-C12: EH_CU_1D_ARDETSC 3072#0.9mg/kg< 0.9   |
| Aromatic C10-C12: EH_CU_1D_AR       DETSC 3072#       0.9       mg/kg       < 0.9  |
| Aromatic C12-C16: EH_CU_1D_AR       DETSC 3072#       0.5       mg/kg       < 0.5  |
| Aromatic C16-C21: EH_CU_1D_ARDETSC 3072#0.6mg/kg< 0.6< 0.6290< 0.6Aromatic C21-C35: EH_CU_1D_ARDETSC 3072#1.4mg/kg< 1.4  |
| $\begin{array}{ c c c c c c c c c c c c c c c c c c c$   |
| Aromatic C35-C40: EH_CU_1D_AR       DETSC 3072*       1.4       mg/kg       < 1.4       < 1.4       < 1.4       < 1.4       < 1.4         Aromatic C5-C40: EH_CU+HS_1D_AR       DETSC 3072*       10       mg/kg       < 10  |
| Aromatic C5-C40: EH_CU+HS_1D_AR         DETSC 3072*         10         mg/kg         <10         <10         680         <10           TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total         DETSC 3072*         10         mg/kg         <10  |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total         DETSC 3072*         10         mg/kg         < 10         < 10         2100         < 10           PAHs         Acenaphthene         DETSC 3303#         0.03         mg/kg         < 0.03   |
| PAHs           Acenaphthene         DETSC 3303#         0.03         mg/kg         < 0.03  |
| Acenaphthene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03 <th< td=""></th<>  |
| Acenaphthylene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03           Anthracene         DETSC 3303         0.03         mg/kg         < 0.03  |
| Anthracene         DETSC 3303         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         < 0.03         <   |
| Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         < 0.03         0.05         < 0.03   |
|  |
| Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         < 0.03         0.03         < 0.03   |
| Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         < 0.03         0.06         < 0.03   |
| Benzo(g,h,i)perylene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03  |
| Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03  |
| Chrysene         DETSC 3303         0.03         mg/kg         < 0.03         0.05         < 0.03  |
| Dibenzo(a,h)anthracene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03         < 0.03  |
| Fluoranthene         DETSC 3303#         0.03         mg/kg         < 0.03         0.09         < 0.03   |
| Fluorene         DETSC 3303         0.03         mg/kg         < 0.03         < 0.03         < 0.03  |
| Indeno(1,2,3-c,d)pyrene DETSC 3303# 0.03 mg/kg < 0.03 < 0.03 < 0.03  |
| Naphthalene         DETSC 3303#         0.03         mg/kg         < 0.03         < 0.03         < 0.03  |
| Phenanthrene         DETSC 3303#         0.03         mg/kg         < 0.03         0.03         < 0.03   |
| Pyrene         DETSC 3303#         0.03         mg/kg         < 0.03         0.08         < 0.03   |
| PAH - USEPA 16, Total         DETSC 3303         0.1         mg/kg         < 0.10         0.39         < 0.10  |



|                         |             |       | Lab No   | 2063354    | 2063355    | 2063356    | 2065445    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-BH114    | CR-TP112   | CR-TP112   | F-BH114    |
|                         |             |       | Depth    | 13.20      | 0.30       | 2.30       | 20.30      |
|                         |             |       | Other ID |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 20/09/2022 | 20/09/2022 | 20/09/2022 | 20/09/2022 |
|                         |             | Sampl | ing Time | 1200       | n/s        | n/s        | 1500       |
| Test                    | Method      | LOD   | Units    |            |            |            |            |
| Phenols                 | -           |       |          |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | 0.4        | < 0.3      |            | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |
| Benzene                 | \$*         | <2    | ug/kg    | <2         |            | <2         |            |
| Toluene                 | \$*         | <5    | ug/kg    | <5         |            | <5         |            |
| Ethylbenzene            | \$*         | <2    | ug/kg    | <2         |            | <2         |            |
| p & m-xylene            | \$*         | <2    | ug/kg    | <2         |            | <2         |            |
| o-xylene                | \$*         | <2    | ug/kg    | <2         |            | <2         |            |
| МТВЕ                    | \$*         | <5    | ug/kg    | <5         |            | <5         |            |
| ТАМЕ                    | \$*         | < 5   | ug/kg    | < 5        |            | < 5        |            |



# Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            |             |        | Lab No   | 2063354    | 2063356    |
|----------------------------|-------------|--------|----------|------------|------------|
|                            |             | .Sa    | mple ID  | F-BH114    | CR-TP112   |
|                            |             |        | Depth    | 13.20      | 2.30       |
|                            |             |        | Other ID |            |            |
|                            |             | Sam    | ple Type | ES         | ES         |
|                            |             | Sampl  | ing Date | 20/09/2022 | 20/09/2022 |
|                            |             | Sampli | ing Time | 1200       | n/s        |
| Test                       | Method      | LOD    | Units    |            |            |
| VOCs                       |             |        |          |            |            |
| Vinyl Chloride             | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,1-dichloroethane         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 2,2-dichloropropane        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Bromochloromethane         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Chloroform                 | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,1-dichloropropene        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Carbon tetrachloride       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Benzene                    | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dichloroethane         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Trichloroethylene          | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dichloropropane        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Dibromomethane             | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Bromodichloromethane       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Toluene                    | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Tetrachloroethylene        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,3-dichloropropane        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Dibromochloromethane       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dibromoethane          | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Chlorobenzene              | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Ethylbenzene               | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| m+p-Xylene                 | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| o-Xylene                   | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Styrene                    | DETSC 3431* | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Bromotorm                  | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Isopropylbenzene           | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| Bromobenzene               | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| n-propylbenzene            | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 2-chlorotoluene            | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |
| 4-chlorotoluene            | DFTSC 3431  | 0.01   | mg/kg    | < 0.01     | < 0.01     |



# Summary of Chemical Analysis Soil VOC/SVOC Samples

|                             | Lab No      |       |          |            | 2063356    |
|-----------------------------|-------------|-------|----------|------------|------------|
|                             |             | .Sa   | ample ID | F-BH114    | CR-TP112   |
|                             |             |       | Depth    | 13.20      | 2.30       |
|                             |             |       | Other ID |            |            |
|                             |             | Sam   | ple Type | ES         | ES         |
|                             |             | Samp  | ing Date | 20/09/2022 | 20/09/2022 |
|                             |             | Sampl | ing Time | 1200       | n/s        |
| Test                        | Method      | LOD   | Units    |            |            |
| Tert-butylbenzene           | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2,4-trimethylbenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| sec-butylbenzene            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| p-isopropyltoluene          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| n-butylbenzene              | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Hexachlorobutadiene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| Naphthalene                 | DETSC 3431  | 0.01  | mg/kg    |            | < 0.01     |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| MTBE                        | DETSC 3431* | 0.01  | mg/kg    | < 0.01     | < 0.01     |
| SVOCs                       |             |       |          |            |            |
| Phenol                      | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| Aniline                     | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Chlorophenol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Benzyl Alcohol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Methylphenol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 3&4-Methylphenol            | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | 0.3        |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Acenaphthylene              | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| 3-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Acenaphthene                | DETSC 3433  | 0.1   | mg/kg    |            | < 0.1      |
| 4-Nitrophenol               | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Dibenzofuran                | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | 0.1        |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |



# Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            | 2063354     | 2063356 |          |            |            |
|----------------------------|-------------|---------|----------|------------|------------|
|                            |             | .Sa     | ample ID | F-BH114    | CR-TP112   |
|                            |             |         | Depth    | 13.20      | 2.30       |
|                            |             |         | Other ID |            |            |
|                            |             | Sam     | ple Type | ES         | ES         |
|                            |             | Sampl   | ing Date | 20/09/2022 | 20/09/2022 |
|                            |             | Sampl   | ing Time | 1200       | n/s        |
| Test                       | Method      | LOD     | Units    |            |            |
| 2,3,4,6-Tetrachlorophenol  | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Diethylphthalate           | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| 4-Chlorophenylphenylether  | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Fluorene                   | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| 4-Nitroaniline             | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| 2-Methyl-4,6-Dinitrophenol | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Diphenylamine              | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| 4-Bromophenylphenylether   | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Hexachlorobenzene          | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Pentachlorophenol          | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Phenanthrene               | DETSC 3433  | 0.1     | mg/kg    |            | 0.5        |
| Anthracene                 | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Di-n-butylphthalate        | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Fluoranthene               | DETSC 3433  | 0.1     | mg/kg    |            | 0.3        |
| Pyrene                     | DETSC 3433  | 0.1     | mg/kg    |            | 0.2        |
| Butylbenzylphthalate       | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Benzo(a)anthracene         | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Chrysene                   | DETSC 3433  | 0.1     | mg/kg    |            | 0.1        |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Di-n-octylphthalate        | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Benzo(b)fluoranthene       | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Benzo(k)fluoranthene       | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Benzo(a)pyrene             | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Indeno(123cd)pyrene        | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Dibenzo(ah)anthracene      | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| Benzo(ghi)perylene         | DETSC 3433  | 0.1     | mg/kg    |            | < 0.1      |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Dimethylphthalate          | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Azobenzene                 | DETSC 3433  | 0.1     | mg/kg    | < 0.1      | < 0.1      |
| Carbazole                  | DETSC 3433* | 0.1     | mg/kg    | < 0.1      | < 0.1      |

# *i* DETS

# Summary of Asbestos Analysis Soil Samples

| Lab No  | Sample ID     | Material Type | Result | Comment* | Analyst     |
|---|---------------|---------------|--------|----------|-------------|
| 2063355   | CR-TP112 0.30 | SOIL          | NAD    | none     | Michael Kay |
| Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos.<br>Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos<br>Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: * ·<br>not included in laboratory scope of accreditation. |               |               |        |          |             |



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-19109 *Client Ref* 60678042 *Contract* NZT Feed GI

## **Containers Received & Deviating Samples**

|         |                    | Date     |                            |  | container for |
|---------|--------------------|----------|----------------------------|--|---------------|
| Lab No  | Sample ID          | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                  | tests         |
| 2063354 | F-BH114 13.20 SOIL | 20/09/22 | GJ 250ml, GJ 500ml, PT 1L  |  |               |
| 2063355 | CR-TP112 0.30 SOIL | 20/09/22 | GJ 250ml, GJ 500ml, PT 1L  |  |               |
| 2063356 | CR-TP112 2.30 SOIL | 20/09/22 | GJ 250ml, GJ 500ml, PT 1L  |  |               |
| 2065445 | F-BH114 20.30 SOIL | 20/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days), Sulphur (free) (7 days), Total |               |
|         |                    |          |                            | Sulphur ICP (7 days), pH + Conductivity (7 days) |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

#### List of HWOL Acronyms and Operators

## Det

| Det                | Acronym           |
|--------------------|-------------------|
| Aliphatic C5-C6    | HS_1D_AL          |
| Aliphatic C6-C8    | HS_1D_AL          |
| Aliphatic C8-C10   | HS_1D_AL          |
| Aliphatic C10-C12  | EH_CU_1D_AL       |
| Aliphatic C12-C16  | EH_CU_1D_AL       |
| Aliphatic C16-C21  | EH_CU_1D_AL       |
| Aliphatic C21-C35  | EH_CU_1D_AL       |
| Aliphatic C35-C40  | EH_CU_1D_AL       |
| Aliphatic C5-C40   | EH_CU+HS_1D_AL    |
| Aromatic C5-C7     | HS_1D_AR          |
| Aromatic C7-C8     | HS_1D_AR          |
| Aromatic C8-C10    | HS_1D_AR          |
| Aromatic C10-C12   | EH_CU_1D_AR       |
| Aromatic C12-C16   | EH_CU_1D_AR       |
| Aromatic C16-C21   | EH_CU_1D_AR       |
| Aromatic C21-C35   | EH_CU_1D_AR       |
| Aromatic C35-C40   | EH_CU_1D_AR       |
| Aromatic C5-C40    | EH_CU+HS_1D_AR    |
| TPH Ali/Aro C5-C40 | EH CU+HS 1D Total |

End of Report



Issued:

04-Oct-22

Certificate Number 22-19275

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-19275
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 8 Soil samples.
  - Date Received 28-Sep-22
  - Date Started 28-Sep-22
- Date Completed 04-Oct-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood

Kirk Bridgewood General Manager





## **Soil Samples**

|                                 |               |       | Lab No   | 2064390    | 2064391    | 2064392    | 2064393     | 2064394     | 2064395     | 2064396     | 2064397     |
|---------------------------------|---------------|-------|----------|------------|------------|------------|-------------|-------------|-------------|-------------|-------------|
|                                 |               | .Sa   | ample ID | F-BH116    | F-BH116    | F-BH116    | F-BH116     | F-BH116     | F-BH116     | F-BH116     | F-BH116     |
|                                 |               |       | Depth    | 4.50-4.93  | 6.00-6.70  | 9.00-9.70  | 11.02-11.53 | 12.00-12.53 | 12.88-13.50 | 14.00-14.45 | 14.55-15.00 |
|                                 |               |       | Other ID |            |            |            |             |             |             |             |             |
|                                 |               | Sam   | ple Type | В          | В          | В          | В           | В           | В           | В           | В           |
|                                 |               | Sampl | ing Date | 02/09/2022 | 02/09/2022 | 02/09/2022 | 05/09/2022  | 05/09/2022  | 05/09/2002  | 05/09/2022  | 05/09/2022  |
|                                 |               | Sampl | ing Time | 0900       | 0900       | 0900       | 1000        | 1000        | 1000        | 1000        | 1000        |
| Test                            | Method        | LOD   | Units    |            |            |            |             |             |             |             |             |
| Inorganics                      |               |       |          |            |            |            |             |             |             |             |             |
| рН                              | DETSC 2008#   |       | рН       | 12.0       |            | 11.7       |             |             |             |             |             |
| Organic matter                  | DETSC 2002#   | 0.1   | %        |            |            |            | 2.2         | 1.8         |             | 2.5         | 5.4         |
| Carbonate (as CO2)              | DETSC 2005    | 1     | %        |            | 3.4        |            |             |             | 4.5         |             |             |
| Chloride Aqueous Extract        | DETSC 2055    | 1     | mg/l     | 100        |            | 24         |             |             |             |             |             |
| Sulphate Aqueous Extract as SO4 | DETSC 2076#   | 10    | mg/l     | 38         |            | 41         |             |             |             |             |             |
| Sulphur as S, Total             | DETSC 2320    | 0.01  | %        | 0.22       |            | 0.03       |             |             |             |             |             |
| Sulphate as SO4 Total           | DETCC 2224 // | 0.01  | 0/       | 0.00       |            | 0.00       |             |             |             |             |             |



## Information in Support of the Analytical Results

*Our Ref* 22-19275 *Client Ref* 60678042 *Contract* NZT Feed GI

## **Containers Received & Deviating Samples**

|         |                          | Date     |                            |  | Inappropriate container for |
|---------|--------------------------|----------|----------------------------|--|-----------------------------|
| Lab No  | Sample ID                | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests                        | tests                       |
| 2064390 | F-BH116 4.50-4.93 SOIL   | 02/09/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |                             |
| 2064391 | F-BH116 6.00-6.70 SOIL   | 02/09/22 | PT 1L                      |  |                             |
| 2064392 | F-BH116 9.00-9.70 SOIL   | 02/09/22 | PT 1L                      | Total Sulphur ICP (7 days), pH + Conductivity (7 days) |                             |
| 2064393 | F-BH116 11.02-11.53 SOIL | 05/09/22 | PT 1L                      |  |                             |
| 2064394 | F-BH116 12.00-12.53 SOIL | 05/09/22 | PT 1L                      |  |                             |
| 2064395 | F-BH116 12.88-13.50 SOIL | 05/09/02 | PT 1L                      | Carbonate (28 days)                                    |                             |
| 2064396 | F-BH116 14.00-14.45 SOIL | 05/09/22 | PT 1L                      |  |                             |
| 2064397 | F-BH116 14.55-15.00 SOIL | 05/09/22 | PT 1L                      |  |                             |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued:

10-Oct-22

Certificate Number 22-19347

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-19347
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - Description 5 Soil samples, 1 Leachate sample.
  - Date Received 28-Sep-22
- Date Started 28-Sep-22
- Date Completed 10-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk



|                                 |             |         | Lab No   | 2064596    | 2064597    | 2064598    | 2064599    |
|---------------------------------|-------------|---------|----------|------------|------------|------------|------------|
|                                 |             | .Sa     | ample ID | F-TP114    | F-TP114    | F-TP114    | F-TP114    |
|                                 |             |         | Depth    | 1.00       | 3.30       | 4.00       | 4.30       |
|                                 |             | (       | Other ID |            |            |            |            |
|                                 |             | Sam     | ple Type | ES         | ES         | ES         | ES         |
|                                 |             | Sampl   | ing Date | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 |
|                                 |             | Sampli  | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                            | Method      | LOD     | Units    |            |            |            |            |
| Preparation                     |             | · • • • |          |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1     | %        | 4.4        | 8.2        | 6.4        | 3.9        |
| Metals                          |             | · •     | 4        |            |            | 1500       |            |
| Aluminium                       | DETSC 2301* | 1       | mg/kg    | 9900       | 10000      | 4500       | 2700       |
| Arsenic                         | DETSC 2301# | 0.2     | mg/kg    | 6.8        | 16         | 7.0        | 8.1        |
| Beryllium                       | DETSC 2301# | 0.2     | mg/kg    | 0.8        | 1.6        | 0.5        | 0.3        |
| Boron, Water Soluble            | DETSC 2311# | 0.2     | mg/kg    | 1.5        | 1.2        | 0.9        | 0.5        |
| Cadmium                         | DETSC 2301# | 0.1     | mg/kg    | 0.3        | 0.7        | 0.3        | 0.2        |
| Chromium III                    | DETSC 2301* | 0.15    | mg/kg    | 1300       | 540        | 310        | 63         |
| Chromium, Hexavalent            | DETSC 2204* | 1       | mg/kg    | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2     | mg/kg    | 52         | 54         | 27         | 14         |
| Iron                            | DETSC 2301  | 25      | mg/kg    | 83000      | 55000      | 42000      | 24000      |
| Lead                            | DETSC 2301# | 0.3     | mg/kg    | 31         | 130        | 61         | 47         |
| Manganese                       | DETSC 2301# | 20      | mg/kg    | 22000      | 9300       | 5700       | 1800       |
| Mercury                         | DETSC 2325# | 0.05    | mg/kg    | < 0.05     | < 0.05     | < 0.05     | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4     | mg/kg    | 5.6        | 4.0        | 1.7        | 0.9        |
| Nickel                          | DETSC 2301# | 1       | mg/kg    | 9.1        | 19         | 11         | 7.4        |
| Phosphorus                      | DETSC 2301* | 1       | mg/kg    | 18000      | 9200       | 6000       | 1400       |
| Selenium                        | DETSC 2301# | 0.5     | mg/kg    | 7.0        | 2.5        | 1.9        | < 0.5      |
| Tin                             | DETSC 2301  | 1       | mg/kg    | 6.4        | 7.0        | 2.4        | 1.8        |
| Vanadium                        | DETSC 2301# | 0.8     | mg/kg    | 2500       | 1200       | 800        | 170        |
| Zinc                            | DETSC 2301# | 1       | mg/kg    | 59         | 140        | 61         | 51         |
| Inorganics                      |             |         |          |            |            |            |            |
| рН                              | DETSC 2008# |         | pН       | 11.7       | 11.6       | 11.2       | 11.3       |
| Cyanide, Total                  | DETSC 2130# | 0.1     | mg/kg    | 0.1        | 0.2        | < 0.1      | < 0.1      |
| Cyanide, Free                   | DETSC 2130# | 0.1     | mg/kg    | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6     | mg/kg    | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1     | %        | 0.5        | 1.2        | 1.0        | 0.3        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5     | mg/kg    | 0.50       | 0.63       | 1.4        | 0.82       |
| Chloride                        | DETSC 2055  | 1       | mg/kg    | 54.9       | 56.4       | 77.4       | 33.0       |
| Fluoride                        | DETSC 2055  | 1       | mg/kg    | 11         | 23         | 9.7        | 21         |
| Nitrate as NO3                  | DETSC 2055  | 1       | mg/kg    | 3.6        | 9.7        | 7.9        | 3.7        |
| Ortho Phosphate as P            | DETSC 2205* | 0.1     | mg/kg    | < 0.10     | < 0.10     | 0.15       | 0.15       |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10      | mg/l     | 69         | 75         | 90         | 47         |
| Sulphide                        | DETSC 2024* | 10      | mg/kg    | 420        | 530        | 330        | 110        |
| Sulphur (free)                  | DETSC 3049# | 0.75    | mg/kg    | 1.2        | 0.97       | < 0.75     | < 0.75     |
| Sulphur as S. Total             | DFTSC 2320  | 0.01    | %        | 0.22       | 0.13       | 0.07       | 0.03       |
| Sulphate as SO4 Total           | DFTSC 2321# | 0.01    | %        | 0.25       | 0.20       | 0.14       | 0.08       |
|                                 | DEIGCEGEIN  | 0.01    | ,,,      | 0.25       | 0.20       | 0.11       | 0.00       |



|                                       |             |          | Lab No   | 2064596    | 2064597    | 2064598                                      | 2064599    |
|---------------------------------------|-------------|----------|----------|------------|------------|--|------------|
|                                       |             | .Sa      | ample ID | F-TP114    | F-TP114    | F-TP114                                      | F-TP114    |
|                                       |             |          | Depth    | 1.00       | 3.30       | 4.00   | 4.30       |
|                                       |             |          | Other ID |            |            |  |            |
|                                       |             | Sam      | ple Type | ES         | ES         | ES   | ES         |
|                                       |             | Sampl    | ing Date | 22/09/2022 | 22/09/2022 | 22/09/2022                                   | 22/09/2022 |
|                                       |             | Sampli   | ing Time | n/s        | n/s        | n/s  | n/s        |
| Test                                  | Method      | LOD      | Units    |            |            |  |            |
| Petroleum Hydrocarbons                |             |          |          |            |            |  |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01                                       | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01                                       | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01                                       | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5      | mg/kg    | < 1.5      | < 1.5      | < 1.5  | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2      | mg/kg    | < 1.2      | < 1.2      | < 1.2  | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5      | mg/kg    | < 1.5      | < 1.5      | < 1.5  | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4      | mg/kg    | < 3.4      | < 3.4      | < 3.4  | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4      | mg/kg    | < 3.4      | < 3.4      | < 3.4  | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10       | mg/kg    | < 10       | < 10       | < 10   | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01                                       | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01                                       | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01     | mg/kg    | < 0.01     | < 0.01     | < 0.01                                       | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9      | mg/kg    | < 0.9      | < 0.9      | < 0.9  | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5      | mg/kg    | < 0.5      | < 0.5      | < 0.5  | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6      | mg/kg    | < 0.6      | < 0.6      | < 0.6  | < 0.6      |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4      | mg/kg    | < 1.4      | < 1.4      | < 1.4  | < 1.4      |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4      | mg/kg    | < 1.4      | < 1.4      | < 1.4  | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10       | mg/kg    | < 10       | < 10       | < 10   | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10       | mg/kg    | < 10       | < 10       | < 10   | < 10       |
| PAHs                                  |             | <u> </u> |          |            |            | <u>.                                    </u> |            |
| Acenaphthene                          | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | < 0.03     | < 0.03                                       | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | < 0.03     | < 0.03                                       | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03     | mg/kg    | < 0.03     | 0.05       | < 0.03                                       | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.26       | 0.07   | 0.06       |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.19       | 0.05   | 0.06       |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.38       | 0.10   | 0.09       |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.17       | 0.04   | 0.04       |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.18       | 0.04   | 0.04       |
| Chrysene                              | DETSC 3303  | 0.03     | mg/kg    | < 0.03     | 0.29       | 0.09   | 0.07       |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.03       | < 0.03                                       | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.47       | 0.13   | 0.10       |
| Fluorene                              | DETSC 3303  | 0.03     | mg/kg    | < 0.03     | < 0.03     | < 0.03                                       | < 0.03     |
| Indeno(1.2.3-c.d)pyrene               | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.14       | 0.04   | 0.03       |
| Naphthalene                           | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.03       | < 0.03                                       | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.31       | 0.09   | 0.09       |
| Pvrene                                | DETSC 3303# | 0.03     | mg/kg    | < 0.03     | 0.39       | 0.11   | 0.09       |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1      | mg/kg    | < 0.10     | 2.9        | 0.77   | 0.64       |
|                                       |             | -        | 0, 0,    |            |            |  |            |



|                         |             |       | Lab No   | 2064596    | 2064597    | 2064598    | 2064599    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP114    | F-TP114    | F-TP114    | F-TP114    |
|                         |             |       | Depth    | 1.00       | 3.30       | 4.00       | 4.30       |
|                         |             |       | Other ID |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |
| Phenols                 |             |       |          |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            |            |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |
| Benzene                 | \$*         | <2    | ug/kg    | 40         |            | 41         |            |
| Toluene                 | \$*         | <5    | ug/kg    | 11         |            | 12         |            |
| Ethylbenzene            | \$*         | <2    | ug/kg    | 38         |            | 124        |            |
| p & m-xylene            | \$*         | <2    | ug/kg    | 35         |            | 103        |            |
| o-xylene                | \$*         | <2    | ug/kg    | 11         |            | 26         |            |
| МТВЕ                    | \$*         | <5    | ug/kg    | <5         |            | <5         |            |
| ТАМЕ                    | \$*         | < 5   | ug/kg    | < 5        |            | < 5        |            |



## **Leachate Samples**

|                            |             |           | Lab No         | 2064600                               |
|----------------------------|-------------|-----------|----------------|---------------------------------------|
|                            |             | .Sa       | F-TP114        |                                       |
|                            |             |           | Depth          | 1.00                                  |
|                            |             | (         | Other ID       |                                       |
|                            |             | Sam       | ple Type       | ES                                    |
|                            |             | Sampl     | ing Date       | 22/09/2022                            |
|                            |             | Sampli    | ng Time        | n/s                                   |
| Test                       | Method      | LOD       | Units          | · · · · · · · · · · · · · · · · · · · |
| Preparation                |             |           |                |                                       |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |           |                | Y                                     |
| Metals                     |             |           |                |                                       |
| Aluminium, Dissolved       | DETSC 2306  | 10        | ug/l           | 630                                   |
| Arsenic, Dissolved         | DETSC 2306  | 0.16      | ug/l           | 1.8                                   |
| Beryllium, Dissolved       | DETSC 2306* | 0.1       | ug/l           | < 0.1                                 |
| Boron, Dissolved           | DETSC 2306* | 12        | ug/l           | 34                                    |
| Cadmium, Dissolved         | DETSC 2306  | 0.03      | ug/l           | < 0.03                                |
| Chromium III, Dissolved    | DETSC 2306* | 1         | ug/l           | 4.2                                   |
| Chromium, Hexavalent       | DETSC 2203  | 0.007     | mg/l           | 0.034                                 |
| Copper, Dissolved          | DETSC 2306  | 0.4       | ug/l           | 2.6                                   |
| Iron, Dissolved            | DETSC 2306  | 5.5       | ug/l           | < 5.5                                 |
| Lead, Dissolved            | DETSC 2306  | 0.09      | ug/l           | 0.89                                  |
| Manganese, Dissolved       | DETSC 2306  | 0.22      | ug/l           | 0.35                                  |
| Mercury. Dissolved         | DETSC 2306  | 0.01      | ug/l           | 0.07                                  |
| Molvbdenum. Dissolved      | DETSC 2306  | 1.1       | ug/l           | 1.2                                   |
| Nickel. Dissolved          | DETSC 2306  | 0.5       | ug/l           | < 0.5                                 |
| Phosphorus as P. Dissolved | DETSC 2306  | 18        | ug/l           | 24                                    |
| Selenium, Dissolved        | DETSC 2306  | 0.25      | ug/l           | 0.32                                  |
| Tin. Dissolved             | DFTSC 2306* | 0.4       | ug/l           | < 0.4                                 |
| Vanadium. Dissolved        | DETSC 2306  | 0.6       | ug/l           | 48                                    |
| Zinc Dissolved             | DETSC 2306  | 13        |                | 1 7                                   |
| Inorganics                 | 521362300   | 1.0       | 4 <u>8</u> / 1 | 1.7                                   |
| ne gamee                   | DETSC 2008  |           | рH             | 9.0                                   |
| Cvanide Total Low Level    | DETSC 2000  | 0.1       | بر<br>ارهر     | < 0.1                                 |
| Cvanide, Free Low Level    | DETSC 2131  | 0.1       | رون<br>ارون    | < 0.1                                 |
| Thiocyanate                | DETSC 2131  | 20        |                | < 20                                  |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1       | mg/l           | 48.1                                  |
| Ammoniacal Nitrogen as NH4 | DETSC 2303  | 0.1       | mg/l           | 0.12                                  |
| Ammoniacal Nitrogen as NH2 | DETSC 2207  | 0.015     | ma/l           | 0.12                                  |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015     | m_/I           | 0.12                                  |
| Chloride                   |             | 0.013     | mg/I           | 0.095<br>A 0                          |
| Eluoride                   | DETSC 2000  | 0.1       | ma/l           | 4.0<br>0 // 7                         |
| Nitrate as NO2             |             | 0.1       |                | 0.47                                  |
| Nitrito as NO2             | DE 13C 2055 | 0.1       | mg/1           | 0.51                                  |
| Ortho Phosphate as P       | DE ISC 2055 | 0.1       | mg/1           | 0.10                                  |
| Sulphate as SO4            | DE13C 2205  | 0.01      | 111g/1         | 0.02                                  |
| Suprate as SU4             | DETSC 2055  | 0.1       | mg/l           | 9.4                                   |
| Dalla                      | DE15C 2085  | L I       | mg/I           | 1.8                                   |
| rans<br>Aconomhthono       |             | 0.01      |                | < 0.01                                |
|                            | 10=150.3304 | i U.U.I.I | 116/1          | $\leq 0.01$                           |



## **Leachate Samples**

|                         |             |       | Lab No   | 2064600    |
|-------------------------|-------------|-------|----------|------------|
|                         |             | .Sa   | ample ID | F-TP114    |
|                         |             |       | Depth    | 1.00       |
|                         |             |       | Other ID |            |
|                         |             | Sam   | ple Type | ES         |
|                         |             | Sampl | ing Date | 22/09/2022 |
|                         |             | Sampl | ing Time | n/s        |
| Test                    | Method      | LOD   | Units    |            |
| Acenaphthylene          | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Anthracene              | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Benzo(a)anthracene      | DETSC 3304* | 0.01  | ug/l     | < 0.01     |
| Benzo(a)pyrene          | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Benzo(b)fluoranthene    | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Benzo(g,h,i)perylene    | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Benzo(k)fluoranthene    | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Chrysene                | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Dibenzo(a,h)anthracene  | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Fluoranthene            | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Fluorene                | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Naphthalene             | DETSC 3304  | 0.05  | ug/l     | 0.09       |
| Phenanthrene            | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| Pyrene                  | DETSC 3304  | 0.01  | ug/l     | < 0.01     |
| PAH Total               | DETSC 3304  | 0.2   | ug/l     | < 0.20     |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

Our Ref 22-19347 Client Ref 60678042 Contract Title NZT Feed GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst       |
|---------|--------------|---------------|--------|----------|---------------|
| 2064595 | F-TP114 0.30 | SOIL          | NAD    | none     | Vicky Convery |
| 2064596 | F-TP114 1.00 | SOIL          | NAD    | none     | Vicky Convery |
| 2064597 | F-TP114 3.30 | SOIL          | NAD    | none     | Vicky Convery |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-19347 *Client Ref* 60678042 *Contract* NZT Feed GI

## **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2064595 | F-TP114 0.30 SOIL     | 22/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2064596 | F-TP114 1.00 SOIL     | 22/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064597 | F-TP114 3.30 SOIL     | 22/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064598 | F-TP114 4.00 SOIL     | 22/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064599 | F-TP114 4.30 SOIL     | 22/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064600 | F-TP114 1.00 LEACHATE | 22/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

#### List of HWOL Acronyms and Operators

## Det

| Det                | Acronym           |
|--------------------|-------------------|
| Aliphatic C5-C6    | HS_1D_AL          |
| Aliphatic C6-C8    | HS_1D_AL          |
| Aliphatic C8-C10   | HS_1D_AL          |
| Aliphatic C10-C12  | EH_CU_1D_AL       |
| Aliphatic C12-C16  | EH_CU_1D_AL       |
| Aliphatic C16-C21  | EH_CU_1D_AL       |
| Aliphatic C21-C35  | EH_CU_1D_AL       |
| Aliphatic C35-C40  | EH_CU_1D_AL       |
| Aliphatic C5-C40   | EH_CU+HS_1D_AL    |
| Aromatic C5-C7     | HS_1D_AR          |
| Aromatic C7-C8     | HS_1D_AR          |
| Aromatic C8-C10    | HS_1D_AR          |
| Aromatic C10-C12   | EH_CU_1D_AR       |
| Aromatic C12-C16   | EH_CU_1D_AR       |
| Aromatic C16-C21   | EH_CU_1D_AR       |
| Aromatic C21-C35   | EH_CU_1D_AR       |
| Aromatic C35-C40   | EH_CU_1D_AR       |
| Aromatic C5-C40    | EH_CU+HS_1D_AR    |
| TPH Ali/Aro C5-C40 | EH CU+HS 1D Total |

End of Report



Issued:

10-Oct-22

Certificate Number 22-19349

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-19349
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - Description 5 Soil samples, 1 Leachate sample.
  - Date Received 28-Sep-22
- Date Started 28-Sep-22
- Date Completed 10-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logmood

Kirk Bridgewood General Manager



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## **Soil Samples**

|                                 |             |       | Lab No   | 2064602    | 2064604    | 2064605    | 2064606    |
|---------------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                                 |             | .Sa   | ample ID | F-TP113    | F-TP113    | F-TP113    | F-TP113    |
|                                 |             |       | Depth    | 0.20       | 2.50       | 3.30       | 4.50       |
|                                 |             |       | Other ID |            |            |            |            |
|                                 |             | Sam   | ple Type | SOIL       | SOIL       | SOIL       | SOIL       |
|                                 |             | Sampl | ing Date | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 |
|                                 |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                            | Method      | LOD   | Units    |            |            |            |            |
| Preparation                     |             |       |          |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1   | %        | 7.3        | 7.7        | 11         | 4.4        |
| Metals                          |             |       |          |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1     | mg/kg    | 10000      | 23000      | 13000      |            |
| Arsenic                         | DETSC 2301# | 0.2   | mg/kg    | 2.5        | 16         | 39         | 9.9        |
| Beryllium                       | DETSC 2301# | 0.2   | mg/kg    | 1.2        | 2.9        | 1.9        | < 0.2      |
| Boron, Water Soluble            | DETSC 2311# | 0.2   | mg/kg    | 4.7        | 1.3        | 1.2        | 0.3        |
| Cadmium                         | DETSC 2301# | 0.1   | mg/kg    | 0.1        | 0.7        | 5.5        | 0.1        |
| Chromium III                    | DETSC 2301* | 0.15  | mg/kg    | 64         | 150        | 97         | 3.8        |
| Chromium, Hexavalent            | DETSC 2204* | 1     | mg/kg    | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2   | mg/kg    | 10         | 79         | 160        | 6.7        |
| Iron                            | DETSC 2301  | 25    | mg/kg    | 8600       | 37000      | 73000      |            |
| Lead                            | DETSC 2301# | 0.3   | mg/kg    | 9.6        | 130        | 3900       | 57         |
| Manganese                       | DETSC 2301# | 20    | mg/kg    | 1700       | 4200       | 2300       |            |
| Mercury                         | DETSC 2325# | 0.05  | mg/kg    | < 0.05     | 0.08       | 0.13       | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4   | mg/kg    | 1.4        | 2.4        | 3.3        |            |
| Nickel                          | DETSC 2301# | 1     | mg/kg    | 3.0        | 15         | 37         | 3.1        |
| Phosphorus                      | DETSC 2301* | 1     | mg/kg    | 850        | 1600       | 1800       |            |
| Selenium                        | DETSC 2301# | 0.5   | mg/kg    | 0.9        | 2.1        | < 0.5      | < 0.5      |
| lin                             | DETSC 2301  | 1     | mg/kg    | 1.2        | 11         | 24         | 45         |
| Vanadium                        | DETSC 2301# | 0.8   | mg/kg    | 130        | 250        | 230        | 15         |
| Zinc                            | DETSC 2301# | 1     | mg/kg    | 19         | 270        | 1300       | 56         |
| inorganics                      |             |       |          | 10 7       | 44.2       | 10.0       |            |
| pH                              | DETSC 2008# |       | рн       | 10.7       | 11.2       | 10.2       | 9.8        |
| Cyanide, Iotal                  | DETSC 2130# | 0.1   | mg/kg    | < 0.1      | < 0.1      | 16         | 0.1        |
| Cyanide, Free                   | DETSC 2130# | 0.1   | mg/kg    | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6   | mg/kg    | < 0.6      | 3.1        | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1   | %        | 0.5        | 2.0        | 1.4        | 0.4        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5   | mg/kg    | 0.74       | 0.76       | 0.81       |            |
| Chloride                        | DETSC 2055  | 1     | mg/kg    | 25.2       | 50.1       | 78.3       |            |
| Fluoride                        | DETSC 2055  | 1     | mg/kg    | 4.6        | 6.3        | 23         |            |
| Nitrate as NO3                  | DETSC 2055  | 1     | mg/kg    | 3.8        | 8.1        | 2.8        | 2.8        |
| Ortho Phosphate as P            | DETSC 2205* | 0.1   | mg/kg    | < 0.10     | 0.15       | 0.14       |            |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l     | 810        | 130        | 100        | 24         |
| Sulphide                        | DETSC 2024* | 10    | mg/kg    | 870        | 2000       | 420        | 200        |
| Sulphur (free)                  | DETSC 3049# | 0.75  | mg/kg    | 19         | < 0.75     | < 0.75     | < 0.75     |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %        | 0.18       | 0.33       | 0.14       | 0.02       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %        | 0.65       | 0.33       | 0.14       | 0.33       |



## Soil Samples

|                                       | Lab No      |       |          | 2064602    | 2064604    | 2064605    | 2064606    |
|---------------------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                                       | .Sample ID  |       | F-TP113  | F-TP113    | F-TP113    | F-TP113    |            |
|                                       |             |       | Depth    | 0.20       | 2.50       | 3.30       | 4.50       |
|                                       |             |       | Other ID |            |            |            |            |
|                                       |             | Sam   | ple Type | SOIL       | SOIL       | SOIL       | SOIL       |
|                                       |             | Samp  | ing Date | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 |
|                                       |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD   | Units    |            |            |            |            |
| Petroleum Hydrocarbons                |             |       |          |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5   | mg/kg    | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2   | mg/kg    | < 1.2      | < 1.2      | < 1.2      | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5   | mg/kg    | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4   | mg/kg    | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4   | mg/kg    | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10    | mg/kg    | < 10       | < 10       | < 10       | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS 1D AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH CU 1D AR         | DETSC 3072# | 0.9   | mg/kg    | < 0.9      | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH CU 1D AR         | DETSC 3072# | 0.5   | mg/kg    | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6   | mg/kg    | < 0.6      | 7.9        | 22         | < 0.6      |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4   | mg/kg    | < 1.4      | 26         | 54         | < 1.4      |
| Aromatic C35-C40: FH_CU_1D_AR         | DETSC 3072* | 1.4   | mg/kg    | < 1.4      | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C5-C40: FH_CU+HS_1D_AR       | DETSC 3072* | 10    | mg/kg    | < 10       | 34         | 76         | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10    | mg/kg    | < 10       | 34         | 76         | < 10       |
| PAHs                                  | 52100 0072  | 10    |          | . 10       | 0.         |            | . 10       |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | 0.06       | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.09       | 0.07       | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | 0.36       | 0.57       | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | 0.04       | 2.2        | 1.9        | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 1.8        | 1.2        | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | 0.06       | 2.4        | 1.7        | < 0.03     |
| Benzo(g,h,i)pervlene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.83       | 0.49       | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 1.1        | 0.74       | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | 0.06       | 1.8        | 14         | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.25       | 0.15       | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | 0.10       | 4.6        | 5.1        | 0.03       |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | 0.07       | 0.18       | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DFTSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.88       | 0.56       | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.09       | 0.07       | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | 0.04       | 13         | 2.2        | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | 0.01       | 3.7        | 3.9        | < 0.03     |
| PAH - USEPA 16 Total                  | DETSC 3303  | 0.03  | mg/kg    | 0.10       | 21         | 20         | < 0.00     |
| PCBs                                  | DEISC 5505  | 0.1   | 116/16   | 0.55       |            | 20         | , 0.10     |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 52                                | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 101                               | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 118                               | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 152                               | DETSC 2401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 133                               | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 130                               | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
|                                       | DETSC 3401# | 0.01  | mg/kg    |            | < 0.01     |            |            |
|                                       | DETSC 3401* | 0.01  | ma /li-  |            | < 0.01     |            |            |
|                                       | DEISC 3401* | 0.01  | mg/Kg    |            | < 0.01     |            |            |
|                                       | DEISC 3401* | 0.01  | rng/kg   |            | < 0.01     |            |            |
| PCB 114                               | DEISC 3401* | 0.01  | mg/kg    |            | < 0.01     |            |            |
| PCB 118                               | DEISC 3401* | 0.01  | mg/kg    |            | < 0.01     |            |            |



## **Soil Samples**

|                         |             | Lab No |          | 2064602    | 2064604    | 2064605    | 2064606    |
|-------------------------|-------------|--------|----------|------------|------------|------------|------------|
|                         |             | .Sa    | ample ID | F-TP113    | F-TP113    | F-TP113    | F-TP113    |
|                         |             |        | Depth    | 0.20       | 2.50       | 3.30       | 4.50       |
|                         |             |        | Other ID |            |            |            |            |
|                         |             | Sam    | ple Type | SOIL       | SOIL       | SOIL       | SOIL       |
|                         |             | Sampl  | ing Date | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 |
|                         |             | Sampl  | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD    | Units    |            |            |            |            |
| PCB 123                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 126                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 156                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 157                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 167                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 169                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 189                 | DETSC 3401* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| PCB 7 Total             | DETSC 3401# | 0.01   | mg/kg    |            | < 0.01     |            |            |
| Phenols                 |             |        |          |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3    | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| p-cresol                | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01   | mg/kg    |            | < 0.01     |            |            |
| Subcontracted Analysis  |             |        |          |            |            |            |            |
| Benzene                 | \$*         | <2     | ug/kg    | 41         | <2         |            |            |
| Toluene                 | \$*         | <5     | ug/kg    | 12         | <85        |            |            |
| Ethylbenzene            | \$*         | <2     | ug/kg    | 41         | <2         |            |            |
| p & m-xylene            | \$*         | <2     | ug/kg    | 33         | <2         |            |            |
| o-xylene                | \$*         | <2     | ug/kg    | 10         | <2         |            |            |
| МТВЕ                    | \$*         | <5     | ug/kg    | <5         | <5         |            |            |
| TAME                    | Ś*          | < 5    | ug/kg    | < 5        | <5         |            |            |



## **Leachate Samples**

|                            |              | 2064607 |              |                |  |
|----------------------------|--------------|---------|--------------|----------------|--|
|                            |              | .Sa     | F-TP113      |                |  |
|                            |              |         | Depth        | 2.50           |  |
|                            |              | (       | Other ID     |                |  |
|                            |              | Sam     | ple Type     | LEACHATE       |  |
|                            |              | Sampl   | ing Date     | 23/09/2022     |  |
|                            |              | Sampli  | ing Time     | n/s            |  |
| Test                       | Method       | LOD     | Units        |                |  |
| Preparation                |              |         |              |                |  |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*  |         |              | Y              |  |
| Metals                     |              |         |              |                |  |
| Aluminium, Dissolved       | DETSC 2306   | 10      | ug/l         | 450            |  |
| Arsenic, Dissolved         | DETSC 2306   | 0.16    | ug/l         | 2.8            |  |
| Beryllium, Dissolved       | DETSC 2306*  | 0.1     | ug/l         | < 0.1          |  |
| Boron, Dissolved           | DETSC 2306*  | 12      | ug/l         | 17             |  |
| Cadmium, Dissolved         | DETSC 2306   | 0.03    | ug/l         | < 0.03         |  |
| Chromium III, Dissolved    | DETSC 2306*  | 1       | ug/l         | < 1.0          |  |
| Chromium, Hexavalent       | DETSC 2203   | 0.007   | mg/l         | 0.018          |  |
| Copper, Dissolved          | DETSC 2306   | 0.4     | ug/l         | 5.8            |  |
| Iron, Dissolved            | DETSC 2306   | 5.5     | ug/l         | 190            |  |
| Lead, Dissolved            | DETSC 2306   | 0.09    | ug/l         | 3.8            |  |
| Manganese, Dissolved       | DETSC 2306   | 0.22    | ug/l         | 7.4            |  |
| Mercury, Dissolved         | DETSC 2306   | 0.01    | ug/l         | 0.04           |  |
| Molybdenum, Dissolved      | DETSC 2306   | 1.1     | ug/l         | < 1.1          |  |
| Nickel, Dissolved          | DETSC 2306   | 0.5     | ug/l         | 0.6            |  |
| Phosphorus as P. Dissolved | DETSC 2306   | 18      | ug/l         | 38             |  |
| Selenium. Dissolved        | DETSC 2306   | 0.25    | ug/l         | 0.46           |  |
| Tin. Dissolved             | DETSC 2306*  | 0.4     | ug/l         | < 0.4          |  |
| Vanadium. Dissolved        | DETSC 2306   | 0.6     | ug/l         | 14             |  |
| Zinc Dissolved             | DETSC 2306   | 13      |              | 6.4            |  |
| Inorganics                 |              |         | 87           |                |  |
| Н                          | DETSC 2008   |         | нa           | 8.7            |  |
| Cvanide Total Low Level    | DETSC 2131   | 01      | ייק<br>וופ/ו | 0.1            |  |
| Cvanide Free Low Level     | DETSC 2131   | 0.1     | ug/l         | < 0.1          |  |
| Thiocyanate                | DETSC 2130   | 20      |              | < 20           |  |
| Total Hardness as CaCO3    | DETSC 2303   | 0.1     | mg/l         | 15.6           |  |
| Ammoniacal Nitrogen as NH4 | DETSC 2303   | 0.015   | mg/l         | 0.19           |  |
| Ammoniacal Nitrogen as NH3 | DETSC 2207   | 0.015   | mg/l         | 0.13           |  |
| Ammoniacal Nitrogen as N   | DETSC 2207   | 0.015   | mg/l         | 0.10           |  |
| Chloride                   | DETSC 2207   | 0.013   | mg/l         | 1.14           |  |
| Eluoride                   | DETSC 2055*  | 0.1     | mg/l         | 4.4            |  |
|                            |              | 0.1     | mg/l         | 0.44           |  |
|                            |              | 0.1     | ma/l         | 0.20           |  |
| Ortho Phoenbate as P       |              | 0.1     | ma/l         | < 0.10<br>0.02 |  |
|                            |              | 0.01    | ma/          | 0.02           |  |
| Supriate as SU4            | DE ISC 2055  | 0.1     | mg/l         |                |  |
|                            | DE15C 2085   | 1       | mg/I         | 4.6            |  |
| rans                       |              | 0.01    |              | 0.01           |  |
| ACEUDUITIETE               | 1011150.3304 | I U.U.I | 1/9/1        | 0.01           |  |



## **Leachate Samples**

|                         |             |       | 2064607  |            |
|-------------------------|-------------|-------|----------|------------|
|                         |             | .Sa   | ample ID | F-TP113    |
|                         |             |       | 2.50     |            |
|                         |             |       | Other ID |            |
|                         |             | Sam   | ple Type | LEACHATE   |
|                         |             | Samp  | ing Date | 23/09/2022 |
|                         |             | Sampl | ing Time | n/s        |
| Test                    | Method      | LOD   | Units    |            |
| Acenaphthylene          | DETSC 3304  | 0.01  | ug/l     | 0.05       |
| Anthracene              | DETSC 3304  | 0.01  | ug/l     | 0.03       |
| Benzo(a)anthracene      | DETSC 3304* | 0.01  | ug/l     | 0.08       |
| Benzo(a)pyrene          | DETSC 3304  | 0.01  | ug/l     | 0.08       |
| Benzo(b)fluoranthene    | DETSC 3304  | 0.01  | ug/l     | 0.11       |
| Benzo(g,h,i)perylene    | DETSC 3304  | 0.01  | ug/l     | 0.08       |
| Benzo(k)fluoranthene    | DETSC 3304  | 0.01  | ug/l     | 0.04       |
| Chrysene                | DETSC 3304  | 0.01  | ug/l     | 0.09       |
| Dibenzo(a,h)anthracene  | DETSC 3304  | 0.01  | ug/l     | 0.02       |
| Fluoranthene            | DETSC 3304  | 0.01  | ug/l     | 0.23       |
| Fluorene                | DETSC 3304  | 0.01  | ug/l     | 0.01       |
| Indeno(1,2,3-c,d)pyrene | DETSC 3304  | 0.01  | ug/l     | 0.08       |
| Naphthalene             | DETSC 3304  | 0.05  | ug/l     | 0.09       |
| Phenanthrene            | DETSC 3304  | 0.01  | ug/l     | 0.06       |
| Pyrene                  | DETSC 3304  | 0.01  | ug/l     | 0.20       |
| PAH Total               | DETSC 3304  | 0.2   | ug/l     | 1.3        |

# *I* DETS

# Summary of Asbestos Analysis Soil Samples

Our Ref 22-19349 Client Ref 60678042 Contract Title NZT Feed GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst   |
|---------|--------------|---------------|--------|----------|-----------|
| 2064603 | F-TP113 0.50 | SOIL          | NAD    | none     | Josh Best |
| 2064604 | F-TP113 2.50 | SOIL          | NAD    | none     | Josh Best |
| 2064605 | F-TP113 3.30 | SOIL          | NAD    | none     | Josh Best |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Inappropriate

## Information in Support of the Analytical Results

*Our Ref* 22-19349 *Client Ref* 60678042 *Contract* NZT Feed GI

## **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2064602 | F-TP113 0.20 SOIL     | 23/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064603 | F-TP113 0.50 SOIL     | 23/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2064604 | F-TP113 2.50 SOIL     | 23/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064605 | F-TP113 3.30 SOIL     | 23/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2064606 | F-TP113 4.50 SOIL     | 23/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2064607 | F-TP113 2.50 LEACHATE | 23/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

## **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



## Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |

#### List of HWOL Acronyms and Operators

## Det

| Det                | Acronym           |
|--------------------|-------------------|
| Aliphatic C5-C6    | HS_1D_AL          |
| Aliphatic C6-C8    | HS_1D_AL          |
| Aliphatic C8-C10   | HS_1D_AL          |
| Aliphatic C10-C12  | EH_CU_1D_AL       |
| Aliphatic C12-C16  | EH_CU_1D_AL       |
| Aliphatic C16-C21  | EH_CU_1D_AL       |
| Aliphatic C21-C35  | EH_CU_1D_AL       |
| Aliphatic C35-C40  | EH_CU_1D_AL       |
| Aliphatic C5-C40   | EH_CU+HS_1D_AL    |
| Aromatic C5-C7     | HS_1D_AR          |
| Aromatic C7-C8     | HS_1D_AR          |
| Aromatic C8-C10    | HS_1D_AR          |
| Aromatic C10-C12   | EH_CU_1D_AR       |
| Aromatic C12-C16   | EH_CU_1D_AR       |
| Aromatic C16-C21   | EH_CU_1D_AR       |
| Aromatic C21-C35   | EH_CU_1D_AR       |
| Aromatic C35-C40   | EH_CU_1D_AR       |
| Aromatic C5-C40    | EH_CU+HS_1D_AR    |
| TPH Ali/Aro C5-C40 | EH CU+HS 1D Total |

End of Report



Issued:

11-Oct-22

Certificate Number 22-19513

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-19513
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - Description 4 Soil samples, 1 Leachate sample.
  - Date Received 30-Sep-22
- Date Started 30-Sep-22
- Date Completed 11-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logmood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk



|                                 |             |       | Lah No                         | 2065520            | 2065521            | 2065522            |
|---------------------------------|-------------|-------|--------------------------------|--------------------|--------------------|--------------------|
|                                 |             | ¢,    |                                | 2005529<br>F-TP112 | 2005531<br>F_TD112 | 2005532<br>F-TD112 |
|                                 |             | .30   | Donth                          | 0.20               | 2.00               | 1-11112            |
|                                 |             |       | Other ID                       | 0.30               | 2.00               | 3.70               |
|                                 |             | Com   |                                |                    |                    | 50                 |
|                                 |             | Sam   | pie Type                       | ES                 | ES                 | ES                 |
|                                 |             | Sampi | ing Date                       | 26/09/2022         | 26/09/2022         | 26/09/2022         |
| Tost                            | Mothod      | JOD   |                                | n/s                | n/s                | n/s                |
| Propagation                     | Wethou      | 100   | Units                          |                    |                    |                    |
| Moisture Content                | DETSC 1004  | 0.1   | %                              | 2.2                | 15                 | 13                 |
| Motals                          | DE13C 1004  | 0.1   | 70                             | 5.5                | 4.5                | 4.5                |
| Aluminium                       | DFTSC 2301* | 1     | mg/kg                          | 1900               | 8400               | 2200               |
| Arsenic                         | DETSC 2301# | 02    | mg/kg                          | 3.6                | 2 7                | 83                 |
| Beryllium                       | DETSC 2301# | 0.2   | mg/kg                          | < 0.2              | 0.9                | 0.3                |
| Boron Water Soluble             | DETSC 2301# | 0.2   | mg/kg                          | 0.2                | 1.5                | 0.5                |
| Cadmium                         | DETSC 2301# | 0.1   | mg/kg                          | < 0.1              | 0.3                | < 0.1              |
| Chromium III                    | DETSC 2301* | 0.1   | mg/kg                          | 19                 | 1300               | 22                 |
| Chromium Hexavalent             | DETSC 2204* | 1     | mg/kg                          | < 1.0              | < 1.0              | < 1.0              |
| Copper                          | DETSC 2301# | 0.2   | mg/kg                          | 82                 | 41                 | 8.0                |
| Iron                            | DETSC 2301  | 25    | mg/kg                          | 44000              | 100000             | 10000              |
| Lead                            | DETSC 2301# | 03    | mg/kg                          | 73                 | 18                 | 15                 |
| Manganese                       | DETSC 2301# | 20    | mg/kg                          | 600                | 29000              | 370                |
| Mercury                         | DETSC 2325# | 0.05  | mg/kg                          | < 0.05             | < 0.05             | < 0.05             |
| Molybdenum                      | DETSC 2323# | 0.03  | mg/kg                          | 1.6                | 6.2                | < 0.03             |
| Nickel                          | DETSC 2301# | 0.4   | mg/kg                          | 4.6                | 5.8                | 61                 |
| Phosphorus                      | DETSC 2301* | 1     | mg/kg                          | 140                | 22000              | 340                |
| Selenium                        | DETSC 2301# | 0.5   | mg/kg                          | < 0.5              | 7.0                | < 0.5              |
| Tin                             | DETSC 2301  | 1     | mg/kg                          | < 1.0              | 7.1                | < 1.0              |
| Vanadium                        | DETSC 2301# | 0.8   |                                | 19                 | 2600               | 48                 |
| Zinc                            | DETSC 2301# | 1     | mg/kg                          | 85                 | 73                 | 34                 |
| Inorganics                      |             |       |                                |                    |                    |                    |
| pH                              | DFTSC 2008# |       | рН                             | 9.3                | 11.1               | 9.1                |
| Cvanide, Total                  | DFTSC 2130# | 0.1   | mg/kg                          | 0.2                | < 0.1              | < 0.1              |
| Cvanide, Free                   | DFTSC 2130# | 0.1   | mg/kg                          | < 0.1              | < 0.1              | < 0.1              |
| Thiocyanate                     | DFTSC 2130# | 0.6   | mg/kg                          | < 0.6              | < 0.6              | < 0.6              |
| Organic matter                  | DFTSC 2002# | 0.0   | %                              | 0.8                | 0.7                | 03                 |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.1   | mg/kg                          | 1.2                | 0.62               | 0.64               |
| Chloride                        | DETSC 2055  | 0.5   | mg/kg                          | 51.9               | 41.6               | 0.04<br>4 1        |
| Eluoride                        | DETSC 2055  | 1     | mg/kg                          | 2.4                | 13                 | 1.1                |
| Nitrate as NO3                  | DETSC 2055  | 1     | mg/kg                          | 2.4                | 11                 | 2.2                |
| Ortho Phosphate as P            | DETSC 2005* | 01    | mg/kg                          | < 0.10             | < 0.10             | 0.20               |
| Sulphate Aqueous Extract as SOA | DETSC 2205  | 10    | mg/l                           | 840                | 23                 | 30                 |
| Sulphido                        |             | 10    | ma/ka                          | 0+0                | 510                | 200                |
| Sulphur (free)                  | DETSC 2024  | 0.75  | mg/kg                          | 030                | 510                | 200                |
| Sulphur as S. Total             | DETSC 3049# | 0.75  | тт <u>е</u> / к <u>е</u><br>0/ | 5.0                | < 0.75             | < 0.75             |
|                                 | DETSC 2320  | 0.01  | %                              | 0.08               | 0.19               | 0.03               |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %                              | 0.70               | 0.30               | 0.08               |



|                                       |             | Lab No |          | 2065529    | 2065531    | 2065532    |
|---------------------------------------|-------------|--------|----------|------------|------------|------------|
|                                       |             | .Sa    | ample ID | F-TP112    | F-TP112    | F-TP112    |
|                                       |             |        | Depth    | 0.30       | 2.00       | 3.70       |
|                                       |             |        | Other ID |            |            |            |
|                                       |             | Sam    | ple Type | ES         | ES         | ES         |
|                                       |             | Samp   | ing Date | 26/09/2022 | 26/09/2022 | 26/09/2022 |
|                                       |             | Sampl  | ing Time | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD    | Units    |            |            |            |
| Petroleum Hydrocarbons                |             | 1 1    |          | [          |            | ſ          |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5    | mg/kg    | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2    | mg/kg    | < 1.2      | < 1.2      | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5    | mg/kg    | < 1.5      | 1.8        | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4    | mg/kg    | < 3.4      | 12         | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4    | mg/kg    | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10     | mg/kg    | < 10       | 16         | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9    | mg/kg    | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5    | mg/kg    | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6    | mg/kg    | < 0.6      | < 0.6      | < 0.6      |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4    | mg/kg    | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4    | mg/kg    | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10     | mg/kg    | < 10       | < 10       | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10     | mg/kg    | < 10       | 16         | < 10       |
| PAHs                                  |             |        |          |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.07       | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.11       | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | 0.03       | 0.14       | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.08       | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.08       | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg    | 0.04       | 0.10       | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg    | 0.06       | 0.13       | < 0.03     |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.05       | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg    | 0.04       | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg    | 0.08       | 0.05       | < 0.03     |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg    | 0.05       | 0.12       | < 0.03     |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg    | 0.30       | 0.93       | < 0.10     |


|                        |             |       | 2065529  | 2065531    | 2065532    |            |
|------------------------|-------------|-------|----------|------------|------------|------------|
|                        |             | .Sa   | ample ID | F-TP112    | F-TP112    | F-TP112    |
|                        |             |       | Depth    | 0.30       | 2.00       | 3.70       |
|                        |             |       | Other ID |            |            |            |
|                        |             | Sam   | ple Type | ES         | ES         | ES         |
|                        |             | Sampl | ing Date | 26/09/2022 | 26/09/2022 | 26/09/2022 |
|                        |             | Sampl | ing Time | n/s        | n/s        | n/s        |
| Test                   | Method      | LOD   | Units    |            |            |            |
| Phenols                |             |       |          |            |            |            |
| Phenol - Monohydric    | DETSC 2130# | 0.3   | mg/kg    | 0.5        | < 0.3      | < 0.3      |
| Subcontracted Analysis |             |       |          |            |            |            |
| Benzene                | \$*         | <2    | ug/kg    | <2         | <2         |            |
| Toluene                | \$*         | <5    | ug/kg    | <5         | <5         |            |
| Ethylbenzene           | \$*         | <2    | ug/kg    | <2         | <2         |            |
| p & m-xylene           | \$*         | <2    | ug/kg    | <2         | <2         |            |
| o-xylene               | \$*         | <2    | ug/kg    | <2         | <2         |            |
| МТВЕ                   | \$*         | <5    | ug/kg    | <5         | <5         |            |
| TAME                   | \$*         | < 5   | ug/kg    | < 5        | < 5        |            |



#### **Leachate Samples**

|                            |                   | Lab No |          |            |  |
|----------------------------|-------------------|--------|----------|------------|--|
|                            |                   | .Sa    | F-TP112  |            |  |
|                            |                   |        | Depth    | 2.00       |  |
|                            |                   | (      | Other ID |            |  |
|                            |                   | Sam    | ple Type | ES         |  |
|                            |                   | Sampl  | ing Date | 26/09/2022 |  |
|                            |                   | Sampli | ing Time | n/s        |  |
| Test                       | Method            | LOD    | Units    |            |  |
| Preparation                |                   |        |          |            |  |
| Leachate 2:1 250g Non-WAC  | DETSC 1009*       |        |          | Y          |  |
| Metals                     |                   |        |          |            |  |
| Aluminium, Dissolved       | <b>DETSC 2306</b> | 10     | ug/l     | 840        |  |
| Arsenic, Dissolved         | <b>DETSC 2306</b> | 0.16   | ug/l     | 2.3        |  |
| Beryllium, Dissolved       | DETSC 2306*       | 0.1    | ug/l     | < 0.1      |  |
| Boron, Dissolved           | DETSC 2306*       | 12     | ug/l     | 20         |  |
| Cadmium, Dissolved         | DETSC 2306        | 0.03   | ug/l     | < 0.03     |  |
| Chromium III, Dissolved    | DETSC 2306*       | 1      | ug/l     | < 1.0      |  |
| Chromium, Hexavalent       | DETSC 2203        | 0.007  | mg/l     | 0.022      |  |
| Copper, Dissolved          | DETSC 2306        | 0.4    | ug/l     | 2.5        |  |
| Iron, Dissolved            | DETSC 2306        | 5.5    | ug/l     | 16         |  |
| Lead, Dissolved            | DETSC 2306        | 0.09   | ug/l     | 3.1        |  |
| Manganese, Dissolved       | DETSC 2306        | 0.22   | ug/l     | < 0.22     |  |
| Mercury, Dissolved         | DETSC 2306        | 0.01   | ug/l     | 0.04       |  |
| Molybdenum, Dissolved      | DETSC 2306        | 1.1    | ug/l     | 1.1        |  |
| Nickel, Dissolved          | DETSC 2306        | 0.5    | ug/l     | < 0.5      |  |
| Phosphorus as P, Dissolved | DETSC 2306        | 18     | ug/l     | 22         |  |
| Selenium, Dissolved        | DETSC 2306        | 0.25   | ug/l     | 0.26       |  |
| Tin, Dissolved             | DETSC 2306*       | 0.4    | ug/l     | < 0.4      |  |
| Vanadium, Dissolved        | DETSC 2306        | 0.6    | ug/l     | 21         |  |
| Zinc, Dissolved            | DETSC 2306        | 1.3    | ug/l     | 3.8        |  |
| Inorganics                 |                   | I      |          |            |  |
| рН                         | DETSC 2008        |        | pН       | 10.8       |  |
| Cyanide, Total Low Level   | DETSC 2131        | 0.1    | ug/l     | < 0.1      |  |
| Cyanide, Free Low Level    | DETSC 2131        | 0.1    | ug/l     | < 0.1      |  |
| Thiocyanate                | DETSC 2130        | 20     | ug/l     | < 20       |  |
| Total Hardness as CaCO3    | DETSC 2303        | 0.1    | mg/l     | 78.8       |  |
| Ammoniacal Nitrogen as NH4 | DETSC 2207        | 0.015  | mg/l     | 0.04       |  |
| Ammoniacal Nitrogen as NH3 | DETSC 2207        | 0.015  | mg/l     | 0.040      |  |
| Ammoniacal Nitrogen as N   | DETSC 2207        | 0.015  | mg/l     | 0.033      |  |
| Chloride                   | DETSC 2055        | 0.1    | mg/l     | 4.1        |  |
| Fluoride                   | DETSC 2055*       | 0.1    | mg/l     | 0.43       |  |
| Nitrate as NO3             | DETSC 2055        | 0.1    | mg/l     | 2.3        |  |
| Nitrite as NO2             | DETSC 2055        | 0.1    | mg/l     | 2.0        |  |
| Ortho Phosphate as P       | DETSC 2205        | 0.01   | mg/l     | < 0.01     |  |
| Sulphate as SO4            | DETSC 2055        | 0.1    | mg/l     | 22         |  |
| Total Organic Carbon       | DETSC 2085        | 1      | mg/l     | 43         |  |



#### **Leachate Samples**

|   |             |            | 2065533          |            |  |
|---|-------------|------------|------------------|------------|--|
|   |             | .Sample ID |                  |            |  |
|   |             |            | Depth            | 2.00       |  |
|   |             | C          | Other ID         |            |  |
|   |             | Samp       | ole Type         | ES         |  |
|   |             | Sampli     | ng Date          | 26/09/2022 |  |
|   |             | Sampli     | ng Time          | n/s        |  |
| Test  | Method      | LOD        | Units            |            |  |
| Petroleum Hydrocarbons                      |             |            |                  |            |  |
| Aliphatic C5-C6: HS 1D AL                   | DETSC 3322  | 0.1        | ug/l             | < 0.1      |  |
| Aliphatic C6-C8: HS_1D_AI                   | DETSC 3322  | 0.1        | ug/l             | < 0.1      |  |
| Aliphatic C8-C10: HS_1D_AI                  | DETSC 3322  | 0.1        | ug/l             | < 0.1      |  |
| Aliphatic C10-C12: FH_CU_1D_AL              | DETSC 3072* | 1          | σ/I              | < 1.0      |  |
| Aliphatic C12-C16: FH_CU_1D_AL              | DETSC 3072* | 1          | ισ/I             | < 1.0      |  |
| Aliphatic C16-C21: EH_CU_1D_AL              | DETSC 2072* | 1          | ug/1             | < 1.0      |  |
| Aliphatic C10-C21: EII_C0_1D_AL             | DETSC 3072  | 1          | ug/i             | < 1.0      |  |
| Aliphatic C21-C55. EH_CU_US_1D_AL           | DETSC 3072* | 10         | ug/i             | < 1.0      |  |
|   | DETSC 3072* | 10         | ug/i             | < 10       |  |
| Aromatic C5-C7: HS_ID_AR                    | DETSC 3322  | 0.1        | ug/I             | < 0.1      |  |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3322  | 0.1        | ug/I             | < 0.1      |  |
| Aromatic C8-C10: HS_1D_AR                   | DETSC 3322  | 0.1        | ug/l             | < 0.1      |  |
| Aromatic C10-C12: EH_CU_1D_AR               | DETSC 3072* | 1          | ug/l             | < 1.0      |  |
| Aromatic C12-C16: EH_CU_1D_AR               | DETSC 3072* | 1          | ug/l             | < 1.0      |  |
| Aromatic C16-C21: EH_CU_1D_AR               | DETSC 3072* | 1          | ug/l             | < 1.0      |  |
| Aromatic C21-C35: EH_CU_1D_AR               | DETSC 3072* | 1          | ug/l             | < 1.0      |  |
| Aromatic C5-C35: EH_CU+HS_1D_AR             | DETSC 3072* | 10         | ug/l             | < 10       |  |
|   |             |            |                  |            |  |
| TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total | DETSC 3072* | 10         | ug/l             | < 10       |  |
| Benzene                                     | DETSC 3322  | 1          | ug/l             | < 1.0      |  |
| Toluene                                     | DETSC 3322  | 1          | ug/l             | < 1.0      |  |
| Ethylbenzene                                | DETSC 3322  | 1          | ug/l             | < 1.0      |  |
| Xylene                                      | DETSC 3322  | 1          | ug/l             | < 1.0      |  |
| PAHs  |             |            |                  |            |  |
| Acenaphthene                                | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Acenaphthylene                              | DETSC 3304  | 0.01       | ug/l             | 0.01       |  |
| Anthracene                                  | DETSC 3304  | 0.01       | ug/l             | 0.01       |  |
| Benzo(a)anthracene                          | DETSC 3304* | 0.01       | ug/l             | < 0.01     |  |
| Benzo(a)pyrene                              | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Benzo(b)fluoranthene                        | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Benzo(g,h,i)perylene                        | DETSC 3304  | 0.01       | ug/l             | 0.01       |  |
| Benzo(k)fluoranthene                        | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Chrysene                                    | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Dibenzo(a,h)anthracene                      | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Fluoranthene                                | DETSC 3304  | 0.01       | ug/l             | 0.03       |  |
| Fluorene                                    | DETSC 3304  | 0.01       | ug/l             | < 0.01     |  |
| Indeno(1.2.3-c.d)pyrene                     | DETSC 3304  | 0.01       | י,יפ∼<br>ו\סוו   | < 0.01     |  |
| Nanhthalene                                 | DETSC 3304  | 0.05       | ر روبی<br>ار میں | 0.01       |  |
| Phenanthrene                                | DETSC 2204  | 0.05       | ug/1             | 0.03       |  |
| Dyrono                                      | DETSC 2204  | 0.01       | ug/1             | 0.02       |  |
| ryielle                                     | DE13C 3304  | 0.01       | ug/I             | 0.02       |  |



#### **Leachate Samples**

|           |            |          | Lab No   | 2065533    |
|-----------|------------|----------|----------|------------|
|           |            | .Sa      | mple ID  | F-TP112    |
|           |            |          | Depth    | 2.00       |
|           |            | C        | Other ID |            |
|           |            | ole Type | ES       |            |
|           |            | Sampli   | ng Date  | 26/09/2022 |
|           |            | Sampli   | n/s      |            |
| Test      | Method     | LOD      | Units    |            |
| PAH Total | DETSC 3304 | 0.2      | ug/l     | < 0.20     |



#### **Leachate Samples**

|                         |             |        | 2065533  |            |
|-------------------------|-------------|--------|----------|------------|
|                         |             | .Sa    | F-TP112  |            |
|                         |             |        | Depth    | 2.00       |
|                         |             | C      | Other ID |            |
|                         |             | Samp   | le Type  | ES         |
|                         |             | Sampli | ng Date  | 26/09/2022 |
|                         |             | Sampli | ng Time  | n/s        |
| Test                    | Method      | LOD    | Units    |            |
| PCBs                    |             |        |          |            |
| PCB 28 + PCB 31         | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 52                  | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| РСВ 77                  | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 81                  | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 101                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 105                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 114                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 118 + PCB 123       | DETSC 3402  | 0.6    | ug/l     | < 0.6      |
| PCB 126                 | DETSC 3402  | 0.5    | ug/l     | < 0.5      |
| PCB 138                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 153                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 156                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 157                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 167                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 169                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 180                 | DETSC 3402  | 0.2    | ug/l     | < 0.2      |
| PCB 189                 | DETSC 3402  | 0.3    | ug/l     | < 0.3      |
| PCB 12                  | DETSC 3402  | 1      | ug/l     | < 1.0      |
| PCB 7 Total             | DETSC 3402  | 1      | ug/l     | < 1.0      |
| Phenols                 |             |        |          |            |
| Phenol                  | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| p-cresol                | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.1    | ug/l     | < 0.10     |
| Subcontracted Analysis  |             |        |          |            |
| Hexavalent Chromium     | \$*         | <2     | ug/l     | 20         |

# *I* DETS

## Summary of Asbestos Analysis Soil Samples

Our Ref 22-19513 Client Ref 60678042 Contract Title NZT Feed GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst   |
|---------|--------------|---------------|--------|----------|-----------|
| 2065529 | F-TP112 0.30 | SOIL          | NAD    | none     | Josh Best |
| 2065530 | F-TP112 1.00 | SOIL          | NAD    | none     | Josh Best |
| 2065531 | F-TP112 2.00 | SOIL          | NAD    | none     | Josh Best |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Inappropriate

#### Information in Support of the Analytical Results

*Our Ref* 22-19513 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2065529 | F-TP112 0.30 SOIL     | 26/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2065530 | F-TP112 1.00 SOIL     | 26/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2065531 | F-TP112 2.00 SOIL     | 26/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2065532 | F-TP112 3.70 SOIL     | 26/09/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2065533 | F-TP112 2.00 LEACHATE | 26/09/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



#### Information in Support of the Analytical Results

|         | , ,   |
|---------|---|
| Acronym | Description   |
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

Acronym

#### List of HWOL Acronyms and Operators

#### Det

| Aliphatic C5-C6          | HS_1D_AL          |
|--------------------------|-------------------|
| Aliphatic C6-C8          | HS_1D_AL          |
| Aliphatic C8-C10         | HS_1D_AL          |
| Aliphatic C10-C12        | EH_CU_1D_AL       |
| Aliphatic C12-C16        | EH_CU_1D_AL       |
| Aliphatic C16-C21        | EH_CU_1D_AL       |
| Aliphatic C21-C35        | EH_CU_1D_AL       |
| Aliphatic C35-C40        | EH_CU_1D_AL       |
| Aliphatic C5-C40         | EH_CU+HS_1D_AL    |
| Aromatic C5-C7           | HS_1D_AR          |
| Aromatic C7-C8           | HS_1D_AR          |
| Aromatic C8-C10          | HS_1D_AR          |
| Aromatic C10-C12         | EH_CU_1D_AR       |
| Aromatic C12-C16         | EH_CU_1D_AR       |
| Aromatic C16-C21         | EH_CU_1D_AR       |
| Aromatic C21-C35         | EH_CU_1D_AR       |
| Aromatic C35-C40         | EH_CU_1D_AR       |
| Aromatic C5-C40          | EH_CU+HS_1D_AR    |
| TPH Ali/Aro C5-C40       | EH_CU+HS_1D_Total |
| Aliphatic C5-C35         | EH_CU+HS_1D_AL    |
| Aromatic C5-C35          | EH_CU+HS_1D_AR    |
| TPH Ali/Aro Total C5-C35 | EH_CU+HS_1D_Total |

End of Report



Issued:

13-Oct-22

Certificate Number 22-19762

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-19762
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT FEED GI
    - Description 12 Soil samples, 5 Leachate samples.
  - Date Received 04-Oct-22
- Date Started 04-Oct-22
- Date Completed 13-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

legenood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

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|                                 |             |        | Lab No   | 2066853    | 2066854    | 2066855    | 2066856    | 2066857    | 2066858    |
|---------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|
|                                 |             | .Sa    | mple ID  | F-TP115    | F-TP115    | F-TP115    | F-TP117    | F-TP117    | F-TP117    |
|                                 |             |        | Depth    | 0.30       | 1.50       | 2.30       | 0.50       | 1.50       | 2.50       |
|                                 |             | (      | Other ID |            |            |            |            |            |            |
|                                 |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                                 |             | Sampl  | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                                 |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                            | Method      | LOD    | Units    |            |            |            |            |            |            |
| Asbestos Quantification         | DETSC 1102  | 0.001  | %        | 0.003      | 0.003      | 0.003      |            |            |            |
| Preparation                     |             |        |          |            |            |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 8.5        |            | 9.7        | 8.7        | 11         | 6.6        |
| Metals                          |             |        |          |            |            |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg    | 9600       |            | 11000      | 5800       | 4200       | 4900       |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 14         |            | 14         | 50         | 19         | 20         |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 1.1        |            | 1.4        | 0.9        | 0.5        | 0.5        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 2.2        |            | 2.4        | 1.7        | 1.1        | 1.2        |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 0.5        |            | 0.5        | 0.8        | 0.4        | 0.2        |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 120        |            | 240        | 110        | 240        | 160        |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      |            | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 41         |            | 38         | 72         | 37         | 28         |
| Iron                            | DETSC 2301  | 25     | mg/kg    | 35000      |            | 38000      | 58000      | 50000      | 52000      |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 70         |            | 85         | 110        | 76         | 15         |
| Manganese                       | DETSC 2301# | 20     | mg/kg    | 3600       |            | 5900       | 7300       | 10000      | 11000      |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | 0.14       |            | < 0.05     | < 0.05     | < 0.05     | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    | 1.6        |            | 2.0        | 1.2        | 1.0        | 0.7        |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 22         |            | 13         | 25         | 19         | 14         |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 2700       |            | 3300       | 2400       | 5300       | 4800       |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 2.2        |            | 2.4        | 3.2        | 4.5        | 4.5        |
| Tin                             | DETSC 2301  | 1      | mg/kg    | 4.3        |            | 5.8        | 4.9        | 4.8        | 2.8        |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 330        |            | 460        | 420        | 860        | 640        |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 170        |            | 160        | 160        | 54         | 28         |
| Inorganics                      |             |        |          |            |            |            |            |            |            |
| рН                              | DETSC 2008# |        | рН       | 10.9       |            | 11.7       | 9.2        | 11.4       | 10.3       |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | 0.2        |            | 0.8        | 0.2        | < 0.1      | < 0.1      |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      |            | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | < 0.6      |            | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 2.6        |            | 12         | 2.8        | 2.8        | 0.2        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 0.90       |            | 1.4        | 0.80       | 0.65       | 1.1        |
| Chloride                        | DETSC 2055  | 1      | mg/kg    | 89.5       |            | 63.9       | 371        | 334        | 64.5       |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    | 22         |            | 46         | 2.5        | 8.9        | < 1.0      |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | 5.1        |            | 10         | 17         | 34         | 13         |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | 0.23       |            | 0.22       | 0.95       | 0.29       | 1.6        |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 18         |            | 410        | 390        | 790        | 1000       |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 920        |            | 1300       | 1100       | 310        | 700        |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 8.9        |            | 3.1        | 10         | 0.94       | 2.1        |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.20       |            | 0.21       | 0.17       | 0.10       | 0.11       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 0.34       |            | 0.78       | 0.42       | 0.42       | 0.50       |
| Petroleum Hydrocarbons          | 1           |        |          |            | 1          | _          |            |            |            |



|                                       |             |                                       | Lab No   | 2066853    | 2066854    | 2066855    | 2066856    | 2066857    | 2066858    |
|---------------------------------------|-------------|---------------------------------------|----------|------------|------------|------------|------------|------------|------------|
|                                       |             | .Sa                                   | ample ID | F-TP115    | F-TP115    | F-TP115    | F-TP117    | F-TP117    | F-TP117    |
|                                       |             |                                       | Depth    | 0.30       | 1.50       | 2.30       | 0.50       | 1.50       | 2.50       |
|                                       |             |                                       | Other ID |            |            |            |            |            |            |
|                                       |             | Sam                                   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampl                                 | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                                       |             | Sampl                                 | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD                                   | Units    |            |            |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01                                  | mg/kg    | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01                                  | mg/kg    | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01                                  | mg/kg    | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5                                   | mg/kg    | < 1.5      |            | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2                                   | mg/kg    | 11         |            | < 1.2      | < 1.2      | < 1.2      | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5                                   | mg/kg    | 35         |            | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4                                   | mg/kg    | 200        |            | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4                                   | mg/kg    | < 3.4      |            | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10                                    | mg/kg    | 250        |            | < 10       | < 10       | < 10       | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01                                  | mg/kg    | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01                                  | mg/kg    | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01                                  | mg/kg    | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9                                   | mg/kg    | < 0.9      |            | < 0.9      | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5                                   | mg/kg    | 9.0        |            | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6                                   | mg/kg    | 50         |            | 6.7        | 23         | < 0.6      | 4.7        |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4                                   | mg/kg    | 460        |            | 42         | 85         | < 1.4      | 39         |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4                                   | mg/kg    | 89         |            | 12         | 6.6        | < 1.4      | 6.6        |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10                                    | mg/kg    | 610        |            | 61         | 120        | < 10       | 50         |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10                                    | mg/kg    | 850        |            | 61         | 120        | < 10       | 50         |
| PAHs                                  |             |                                       |          | -          |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03                                  | mg/kg    | 0.03       |            | < 0.03     | 0.05       | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03                                  | mg/kg    | 0.03       |            | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03                                  | mg/kg    | 0.16       |            | 0.11       | 0.32       | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03                                  | mg/kg    | 0.45       |            | 0.36       | 1.4        | < 0.03     | 0.07       |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03                                  | mg/kg    | 0.32       |            | 0.25       | 1.0        | < 0.03     | 0.04       |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03                                  | mg/kg    | 0.56       |            | 0.50       | 1.6        | 0.05       | 0.08       |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03                                  | mg/kg    | 0.20       |            | 0.17       | 0.51       | 0.04       | 0.03       |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03                                  | mg/kg    | 0.27       |            | 0.22       | 0.62       | < 0.03     | 0.03       |
| Chrysene                              | DETSC 3303  | 0.03                                  | mg/kg    | 0.57       |            | 0.49       | 1.7        | 0.05       | 0.11       |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03                                  | mg/kg    | 0.06       |            | 0.04       | 0.18       | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03                                  | mg/kg    | 1.3        |            | 0.99       | 3.2        | 0.06       | 0.17       |
| Fluorene                              | DETSC 3303  | 0.03                                  | mg/kg    | 0.05       |            | < 0.03     | 0.04       | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03                                  | mg/kg    | 0.17       |            | 0.16       | 0.46       | 0.04       | 0.03       |
| Naphthalene                           | DETSC 3303# | 0.03                                  | mg/kg    | 0.03       |            | 0.03       | 0.05       | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03                                  | mg/kg    | 0.49       |            | 0.40       | 1.6        | 0.04       | 0.10       |
| Pyrene                                | DETSC 3303# | 0.03                                  | mg/kg    | 1.2        |            | 0.97       | 2.4        | 0.04       | 0.11       |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1                                   | mg/kg    | 5.8        |            | 4.7        | 15         | 0.32       | 0.74       |
| PCBs                                  |             |                                       | 0        |            |            |            | 1          |            |            |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01                                  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 52                                | DETSC 3401# | 0.01                                  | mg/kg    |            |            |            | < 0.01     |            |            |
|                                       | 1           | · · · · · · · · · · · · · · · · · · · |          |            | -          |            |            |            |            |



|                         |             |       | Lab No   | 2066853    | 2066854    | 2066855    | 2066856    | 2066857    | 2066858    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP115    | F-TP115    | F-TP115    | F-TP117    | F-TP117    | F-TP117    |
|                         |             |       | Depth    | 0.30       | 1.50       | 2.30       | 0.50       | 1.50       | 2.50       |
|                         |             |       | Other ID |            |            |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |            |            |
| PCB 101                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 118                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 153                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 138                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 180                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 77                  | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 81                  | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 105                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 114                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 118                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 123                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 126                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 156                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 157                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 167                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 169                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 189                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| PCB 7 Total             | DETSC 3401# | 0.01  | mg/kg    |            |            |            | < 0.01     |            |            |
| Phenols                 |             |       |          |            |            |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | < 0.3      |            | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            | < 0.01     |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |            |            |
| Benzene                 | \$*         | <2    | ug/kg    | <2         |            |            | 5          |            | 6          |
| Toluene                 | \$*         | <5    | ug/kg    | <5         |            |            | <5         |            | <5         |
| Ethylbenzene            | \$*         | <2    | ug/kg    | <2         |            |            | <2         |            | <2         |
| p & m-xylene            | \$*         | <2    | ug/kg    | <2         |            |            | <2         |            | <2         |
| o-xylene                | \$*         | <2    | ug/kg    | <2         |            |            | <2         |            | <2         |
| МТВЕ                    | \$*         | <5    | ug/kg    | <5         |            |            | <5         |            | <5         |
| ТАМЕ                    | \$*         | < 5   | ug/kg    | < 5        |            |            | < 5        |            | < 5        |



| Sample ID     F7113     F7113<  |                                 |             |        | Lab No   | 2066859    | 2066860    | 2066861    | 2066862    | 2066863    | 2066864    |
|---|---------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|
| Depth<br>Other     0.20     0.70     1.70     2.70     3.00     4.00       Sample Type<br>Sampling Date<br>2709/022     270     7.0     12     A     12   |                                 |             | .Sa    | ample ID | F-TP119    | F-TP119    | F-TP119    | F-TP119    | F-TP119    | F-TP119    |
| Other ID     Sample Type     Stample Type     Stample Type     Stample Type     Stample Type     Stample Type      |                                 |             |        | Depth    | 0.20       | 0.70       | 1.70       | 2.70       | 3.00       | 4.00       |
| Sample Type     Es   |                                 |             | (      | Other ID |            |            |            |            |            |            |
| Sampling Date     2//09/2022     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//09/202     2//00     2//00     2//00     2//00     2//00      2//00     <  |                                 |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
| sampling Time (n/s     (n/s)  |                                 |             | Sampl  | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
| Test     Method     LOD     Units       Asbestos Quantification     DETSC 1102     0.001     %     0.004     0.015     Image: Construct |                                 |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Asbestos Quantífication     DETSC 1102     0.001     %     0.004     0.015     Image: Content       Preparation     Netsure Content     DETSC 1004     0.1     %     6.7     5.5     12     7.0     12       Metais     Net/Sc 2301*     1     mg/kg     3700     14000     14000     3900       Assenic     DETSC 2301*     0.2     mg/kg     0.3     0.6     1.5     1.7     0.4       Boron, Water Soluble     DETSC 2301*     0.1     mg/kg     1.0     1.0     <<<.2     1.1     0.9       Chromium, Heavalent     DETSC 2301*     0.1     mg/kg     1.0     1.0     <     <<.10     <     <<.10     <     <<.10     <     <<.10     <     <<.10     <     <<.10     <<.10     <<.10     <     <<.10     <     <<.10     <     <<.10     <     <.10     <     <.100     <<.100     <<.100     <<.100     <<.10     <<.10     <<.10     <     <.10     <<.10     <.10     <.10  | Test                            | Method      | LOD    | Units    |            |            |            |            |            |            |
| Preparation     Moisture Content     DETSC 1004     0.1     %     6.7     S.5     1.2     7.0     1.2       Metals        1     mg/kg     3700     14000     14000     3900       Arsenic     DETSC 2301#     0.2     mg/kg     6.2     1.3     9.5     5.1     5.6       Beryllium     DETSC 2301#     0.2     mg/kg     1.0     1.0     <0.2     1.1     0.9       Cadmium     DETSC 2301#     0.1     mg/kg     1.0     1.5     1.0     0.4     <0.1       Chromium, Hexavalent     DETSC 2301#     0.15     mg/kg     31     290     240     230     200       Copper     DETSC 2301#     0.3     mg/kg     2100     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0  | Asbestos Quantification         | DETSC 1102  | 0.001  | %        | 0.004      |            | 0.015      |            |            |            |
| Moisture Content     DETSC 1004     0.1     %     6.7     5.5     1.2     7.0     1.2       Metals            3.00  | Preparation                     |             |        |          |            |            |            |            |            |            |
| Metals     DETSC 2301*     1     mg/kg     3700     14000     <   | Moisture Content                | DETSC 1004  | 0.1    | %        | 6.7        | 5.5        |            | 12         | 7.0        | 12         |
| Aluminium   DETSC 2301*   1   mg/kg   3700   14000   14000   3900     Arsenic   DETSC 2301*   0.2   mg/kg   6.2   13   9.5   5.1   5.0     Boron, Water Soluble   DETSC 2301*   0.2   mg/kg   1.0   1.0   <0.2  | Metals                          |             |        |          |            |            |            |            |            |            |
| Arsenic   DETSC 2301#   0.2   mg/kg   6.2   13   9.5   5.1   5.6     Beryllium   DETSC 2301#   0.2   mg/kg   1.0   0.4   0.2   1.1   0.9     Cadmium   DETSC 2301#   0.1   mg/kg   1.0   1.0   0.4   0.1   0.4   0.1     Chromium III   DETSC 2301#   0.1   mg/kg   1.0   1.0   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.4   0.1   0.0   0.4   0.1   0.0   0.4   0.1   0.0   0.1   0.0   | Aluminium                       | DETSC 2301* | 1      | mg/kg    | 3700       |            |            | 14000      | 14000      | 3900       |
| Beryllium     DETSC 2301#     O.2     mg/kg     O.3     O.6     I.5     I.7     O.4       Boron, Water Soluble     DETSC 2311#     O.2     mg/kg     1.0     I.0     <<0.2  | Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 6.2        | 13         |            | 9.5        | 5.1        | 5.6        |
| Boron, Water Soluble     DETSC 2311#     0.2     mg/kg     1.0     < 0.2     1.1     0.9       Cadmium     DETSC 2301#     0.1     mg/kg     1.0     1.0     0.4     <0.1   | Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 0.3        | 0.6        |            | 1.5        | 1.7        | 0.4        |
| Cadmium     DETSC 2301#     0.1     mg/kg     1.0     1.0     0.4     <0.1       Chromium III     DETSC 2301*     0.15     mg/kg     31     290     240     230     200       Chromium, Hexavalent     DETSC 2301     1     mg/kg     210     <1.0  | Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 1.0        | 1.0        |            | < 0.2      | 1.1        | 0.9        |
| Chromium III     DETSC 2301*     0.15     mg/kg     31     290     240     230     200       Chromium, Hexavalent     DETSC 2301*     0.2     mg/kg     <1.0  | Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 1.0        | 1.5        |            | 1.0        | 0.4        | < 0.1      |
| Chromium, Hexavalent     DETSC 2204*     1     mg/kg     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0     <1.0   | Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 31         | 290        |            | 240        | 230        | 20         |
| Copper     DETSC 2301 #     0.2     mg/kg     29     45     57     24     3.1       Iron     DETSC 2301 Z5     mg/kg     140000     72000     50000     6300       Lead     DETSC 2301 #     0.3     mg/kg     1400     11000     10000     560       Marganese     DETSC 2301 #     0.4     mg/kg     4.00     0.07     <0.05  | Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      |            | < 1.0      | < 1.0      | < 1.0      |
| Iron     DETSC 2301     25     mg/kg     140000     72000     50000     6300       Lead     DETSC 2301#     0.3     mg/kg     26     30     130     26     170       Manganese     DETSC 2301#     20     mg/kg     400     11000     10000     560       Molybdenum     DETSC 2301#     0.4     mg/kg     2.5     2.7     2.1     <0.4   | Copper                          | DETSC 2301# | 0.2    | mg/kg    | 29         | 45         |            | 57         | 24         | 3.1        |
| Lead     DETSC 2301#     0.3     mg/kg     26     30     130     26     17       Manganese     DETSC 2301#     20     mg/kg     1400     11000     10000     560       Morpdenum     DETSC 2301#     0.05     mg/kg     2.0.5     0.0.7     <0.05   | Iron                            | DETSC 2301  | 25     | mg/kg    | 140000     |            |            | 72000      | 50000      | 6300       |
| Manganese     DETS C 2301#     20     mg/kg     1400     11000     10000     560       Mercury     DETS C 2325#     0.05     mg/kg     <0.05  | Lead                            | DETSC 2301# | 0.3    | mg/kg    | 26         | 30         |            | 130        | 26         | 17         |
| Mercury     DETSC 2325#     0.05     mg/kg     < 0.05     < 0.05     0.07     < 0.05     < 0.05       Molybdenum     DETSC 2301#     0.4     mg/kg     2.5     2.7     2.1     < 0.4       Nickel     DETSC 2301#     1     mg/kg     400     2700     1700     2700       Selenium     DETSC 2301#     0.5     mg/kg     1.0     3.1     3.5     3.8     < 0.5       Tin     DETSC 2301#     0.5     mg/kg     6.3     710     790     810     455       Zinc     DETSC 2301#     0.8     mg/kg     63     710     190     71     19       Inorganics     pH     DETSC 2100#     0.1     mg/kg     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1     <0.1 </td <td>Manganese</td> <td>DETSC 2301#</td> <td>20</td> <td>mg/kg</td> <td>1400</td> <td></td> <td></td> <td>11000</td> <td>10000</td> <td>560</td>  | Manganese                       | DETSC 2301# | 20     | mg/kg    | 1400       |            |            | 11000      | 10000      | 560        |
| Molybdenum     DETSC 2301#     0.4     mg/kg     2.5     2.7     2.1     <0.4       Nickel     DETSC 2301#     1     mg/kg     19     22     17     8.0     2.1       Phosphorus     DETSC 2301#     1     mg/kg     10     3.1     3.5     3.8     <0.5  | Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05     | < 0.05     |            | 0.07       | < 0.05     | < 0.05     |
| Nickel     DETSC 2301#     1     mg/kg     19     22     17     8.0     2.1       Phosphorus     DETSC 2301*     1     mg/kg     400     2700     1700     270       Selenium     DETSC 2301*     0.5     mg/kg     1.0     3.1     3.5     3.8     <0.5  | Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    | 2.5        |            |            | 2.7        | 2.1        | < 0.4      |
| Phosphorus     DETSC 2301*     1     mg/kg     400     2700     1700     270       Selenium     DETSC 2301#     0.5     mg/kg     1.0     3.1     3.5     3.8     <0.5  | Nickel                          | DETSC 2301# | 1      | mg/kg    | 19         | 22         |            | 17         | 8.0        | 2.1        |
| Selenium     DETSC 2301#     0.5     mg/kg     1.0     3.1     3.5     3.8     < 0.5       Tin     DETSC 2301     1     mg/kg     2.8     6.7     3.0     < 1.0   | Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 400        |            |            | 2700       | 1700       | 270        |
| Tin     DETSC 2301     1     mg/kg     2.8     6.7     3.0     <1.0       Vanadium     DETSC 2301#     0.8     mg/kg     63     710     790     810     455       Zinc     DETSC 2301#     1     mg/kg     170     110     190     71     199       Inorganics       PH     0.6     11.6     11.8     12.0     11.1       Cyanide, Total     DETSC 2103#     0.1     mg/kg     <0.1   | Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 1.0        | 3.1        |            | 3.5        | 3.8        | < 0.5      |
| Vanadium     DETSC 2301#     0.8     mg/kg     63     710     790     810     45       Zinc     DETSC 2301#     1     mg/kg     170     110     190     71     19       Inorganics      pH     DETSC 2008#     pH     10.6     11.6     11.8     12.0     11.1       Cyanide, Total     DETSC 2130#     0.1     mg/kg     < 0.1   | Tin                             | DETSC 2301  | 1      | mg/kg    | 2.8        |            |            | 6.7        | 3.0        | < 1.0      |
| Zinc     DETSC 2301#     1     mg/kg     170     110     190     71     19       Inorganics     PH     DETSC 2008#     PH     10.6     11.6     11.8     12.0     11.1       Cyanide, Total     DETSC 2130#     0.1     mg/kg     < 0.1     < < 0.1     < < 0.1     0.3     0.4     < < 0.1       Cyanide, Free     DETSC 2130#     0.1     mg/kg     < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1     < < 0.1   | Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 63         | 710        |            | 790        | 810        | 45         |
| Inorganics     DETSC 2008#     PH     OH     OLO     OLI  | Zinc                            | DETSC 2301# | 1      | mg/kg    | 170        | 110        |            | 190        | 71         | 19         |
| pH     DETSC 2008#     pH     10.6     11.6     11.8     12.0     11.1       Cyanide, Total     DETSC 2130#     0.1     mg/kg     < 0.1   | Inorganics                      |             |        |          |            |            |            |            |            |            |
| Cyanide, Total     DETSC 2130#     0.1     mg/kg     < 0.1     < 0.1     0.3     0.4     < 0.1       Cyanide, Free     DETSC 2130#     0.1     mg/kg     < 0.1  | рН                              | DETSC 2008# |        | рН       | 10.6       | 11.6       |            | 11.8       | 12.0       | 11.1       |
| Cyanide, Free     DETSC 2130#     0.1     mg/kg     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1     < 0.1   | Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      |            | 0.3        | 0.4        | < 0.1      |
| Thiocyanate   DETSC 2130#   0.6   mg/kg   < 0.6   < 0.6   < 0.6   1.8   < 0.6     Organic matter   DETSC 2002#   0.1   %   < 0.1  | Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      |            | < 0.1      | < 0.1      | < 0.1      |
| Organic matter     DETSC 2002#     0.1     %     < 0.1     0.7     7.9     < 0.1     0.7       Ammoniacal Nitrogen as N     DETSC 2119#     0.5     mg/kg     0.66     0.63     0.79     0.68       Chloride     DETSC 2055     1     mg/kg     140     172     552     22.2       Fluoride     DETSC 2055     1     mg/kg     2.4     13     3.5     4.8       Nitrate as NO3     DETSC 2055     1     mg/kg     33     16     13     3.4     9.3       Ortho Phosphate as P     DETSC 2076#     10     mg/kg     0.35     0.21     0.19     0.24       Sulphate Aqueous Extract as SO4     DETSC 2076#     10     mg/kg     140     280     580     1100     240       Sulphide     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     <0.75   | Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | < 0.6      | < 0.6      |            | < 0.6      | 1.8        | < 0.6      |
| Ammoniacal Nitrogen as N   DETSC 2119#   0.5   mg/kg   0.66   0.63   0.79   0.68     Chloride   DETSC 2055   1   mg/kg   140   172   552   22.2     Fluoride   DETSC 2055   1   mg/kg   2.4   13   3.5   4.8     Nitrate as NO3   DETSC 2055   1   mg/kg   33   16   13   3.4   9.3     Ortho Phosphate as P   DETSC 205*   0.1   mg/kg   0.35   0.21   0.19   0.24     Sulphate Aqueous Extract as SO4   DETSC 2024*   10   mg/kg   140   280   580   1100   240     Sulphur (free)   DETSC 2024*   10   mg/kg   2.0   3.1   20   5.6   < 0.75   | Organic matter                  | DETSC 2002# | 0.1    | %        | < 0.1      | 0.7        |            | 7.9        | < 0.1      | 0.7        |
| Chloride     DETSC 2055     1     mg/kg     140     172     552     22.2       Fluoride     DETSC 2055     1     mg/kg     2.4     13     3.5     4.8       Nitrate as NO3     DETSC 2055     1     mg/kg     33     16     13     3.4     9.3       Ortho Phosphate as P     DETSC 205*     0.1     mg/kg     0.35     0.21     0.19     0.24       Sulphate Aqueous Extract as SO4     DETSC 2076#     10     mg/kg     140     280     580     1100     240       Sulphide     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     < 0.75  | Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 0.66       |            |            | 0.63       | 0.79       | 0.68       |
| Fluoride   DETSC 2055   1   mg/kg   2.4   13   3.5   4.8     Nitrate as NO3   DETSC 2055   1   mg/kg   33   16   13   3.4   9.3     Ortho Phosphate as P   DETSC 2205*   0.1   mg/kg   0.35   0.21   0.19   0.24     Sulphate Aqueous Extract as SO4   DETSC 2076#   10   mg/kg   140   280   580   1100   240     Sulphide   DETSC 2024*   10   mg/kg   140   280   580   1100   240     Sulphur (free)   DETSC 3049#   0.75   mg/kg   2.0   3.1   20   5.6   < 0.75   | Chloride                        | DETSC 2055  | 1      | mg/kg    | 140        |            |            | 172        | 552        | 22.2       |
| Nitrate as NO3     DETSC 2055     1     mg/kg     33     16     13     3.4     9.3       Ortho Phosphate as P     DETSC 2205*     0.1     mg/kg     0.35     0.21     0.19     0.24       Sulphate Aqueous Extract as SO4     DETSC 2076#     10     mg/kg     140     280     210     130     240       Sulphide     DETSC 2024*     10     mg/kg     140     280     580     1100     240       Sulphur (free)     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     <0.75  | Fluoride                        | DETSC 2055  | 1      | mg/kg    | 2.4        |            |            | 13         | 3.5        | 4.8        |
| Ortho Phosphate as P     DETSC 2205*     0.1     mg/kg     0.35     0.21     0.19     0.24       Sulphate Aqueous Extract as SO4     DETSC 2076#     10     mg/l     420     290     210     130     240       Sulphide     DETSC 2024*     10     mg/kg     140     280     580     1100     240       Sulphur (free)     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     < 0.75   | Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | 33         | 16         |            | 13         | 3.4        | 9.3        |
| Sulphate Aqueous Extract as SO4     DETSC 2076#     10     mg/l     420     290     210     130     240       Sulphide     DETSC 2024*     10     mg/kg     140     280     580     1100     240       Sulphur (free)     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     < 0.75  | Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | 0.35       |            |            | 0.21       | 0.19       | 0.24       |
| Sulphide     DETSC 2024*     10     mg/kg     140     280     580     1100     240       Sulphur (free)     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     < 0.75  | Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 420        | 290        |            | 210        | 130        | 240        |
| Sulphur (free)     DETSC 3049#     0.75     mg/kg     2.0     3.1     20     5.6     < 0.75       Sulphur as S, Total     DETSC 2320     0.01     %     0.04     0.10     0.20     0.24     0.06       Sulphate as SO4, Total     DETSC 2321#     0.01     %     0.19     0.37     0.60     0.78     0.19   | Sulphide                        | DETSC 2024* | 10     | mg/kg    | 140        | 280        |            | 580        | 1100       | 240        |
| Sulphur as S, Total     DETSC 2320     0.01     %     0.04     0.10     0.20     0.24     0.06       Sulphate as SO4, Total     DETSC 2321#     0.01     %     0.19     0.37     0.60     0.78     0.19   | Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 2.0        | 3.1        |            | 20         | 5.6        | < 0.75     |
| Sulphate as SO4, Total     DETSC 2321#     0.01     %     0.19     0.37     0.60     0.78     0.19  | Sulphur as S. Total             | DETSC 2320  | 0.01   | <u> </u> | 0.04       | 0.10       |            | 0.20       | 0.24       | 0.06       |
|   | Sulphate as SO4. Total          | DETSC 2321# | 0.01   | %        | 0.19       | 0.37       |            | 0.60       | 0.78       | 0.19       |
| Petroleum Avarocarbons  | Petroleum Hydrocarbons          |             |        | ,0       | 0.20       | 0.07       |            | 0.00       | 00         | 0.20       |



|                                       |             |        | Lab No   | 2066859    | 2066860    | 2066861    | 2066862    | 2066863    | 2066864    |
|---------------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|
|                                       |             | .Sa    | ample ID | F-TP119    | F-TP119    | F-TP119    | F-TP119    | F-TP119    | F-TP119    |
|                                       |             |        | Depth    | 0.20       | 0.70       | 1.70       | 2.70       | 3.00       | 4.00       |
|                                       |             | (      | Other ID |            |            |            |            |            |            |
|                                       |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampl  | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                                       |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD    | Units    |            |            |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5    | mg/kg    | < 1.5      | < 1.5      |            | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2    | mg/kg    | < 1.2      | 7.9        |            | < 1.2      | 11         | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5    | mg/kg    | < 1.5      | 13         |            | < 1.5      | 13         | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4    | mg/kg    | < 3.4      | 20         |            | < 3.4      | 14         | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4    | mg/kg    | < 3.4      | < 3.4      |            | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10     | mg/kg    | < 10       | 41         |            | < 10       | 39         | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01   | mg/kg    | < 0.01     | < 0.01     |            | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9    | mg/kg    | < 0.9      | < 0.9      |            | 2.4        | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5    | mg/kg    | < 0.5      | < 0.5      |            | 17         | 2.0        | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6    | mg/kg    | < 0.6      | < 0.6      |            | 77         | 18         | < 0.6      |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4    | mg/kg    | < 1.4      | < 1.4      |            | 140        | 25         | < 1.4      |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4    | mg/kg    | < 1.4      | < 1.4      |            | 16         | < 1.4      | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10     | mg/kg    | < 10       | < 10       |            | 260        | 44         | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10     | mg/kg    | < 10       | 41         |            | 260        | 83         | < 10       |
| PAHs                                  |             |        |          |            |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | 0.60       | 0.86       | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | 0.03       | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03   | mg/kg    | 0.03       | 0.05       |            | 1.4        | 1.5        | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03   | mg/kg    | 0.04       | 0.05       |            | 3.2        | 1.7        | < 0.03     |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03   | mg/kg    | 0.05       | 0.05       |            | 2.3        | 1.2        | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | 0.06       | 0.09       |            | 3.3        | 2.2        | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.04       |            | 1.1        | 0.73       | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.04       |            | 1.3        | 0.89       | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03   | mg/kg    | 0.08       | 0.11       |            | 3.5        | 2.4        | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | 0.27       | 0.19       | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03   | mg/kg    | 0.14       | 0.24       |            | 12         | 7.9        | 0.06       |
| Fluorene                              | DETSC 3303  | 0.03   | mg/kg    | < 0.03     | < 0.03     |            | 0.36       | 0.78       | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03   | mg/kg    | < 0.03     | 0.04       |            | 0.89       | 0.60       | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03   | mg/kg    | 0.09       | 0.05       |            | 0.10       | 0.38       | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03   | mg/kg    | 0.14       | 0.15       |            | 7.8        | 8.0        | 0.03       |
| Pyrene                                | DETSC 3303# | 0.03   | mg/kg    | 0.10       | 0.17       |            | 11         | 6.4        | 0.04       |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1    | mg/kg    | 0.71       | 1.1        |            | 48         | 36         | < 0.10     |
| PCBs                                  | •           | · ·    |          |            |            |            |            |            |            |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01   | mg/kg    |            |            |            |            |            |            |
| PCB 52                                | DETSC 3401# | 0.01   | mg/kg    |            |            |            |            |            |            |



|                         |             |       | Lab No   | 2066859    | 2066860    | 2066861    | 2066862    | 2066863    | 2066864    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP119    | F-TP119    | F-TP119    | F-TP119    | F-TP119    | F-TP119    |
|                         |             |       | Depth    | 0.20       | 0.70       | 1.70       | 2.70       | 3.00       | 4.00       |
|                         |             |       | Other ID |            |            |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                         |             | Samp  | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |            |            |
| PCB 101                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 118                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 153                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 138                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 180                 | DETSC 3401# | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 77                  | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 81                  | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 105                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 114                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 118                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 123                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 126                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 156                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 157                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 167                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 169                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 189                 | DETSC 3401* | 0.01  | mg/kg    |            |            |            |            |            |            |
| PCB 7 Total             | DETSC 3401# | 0.01  | mg/kg    |            |            |            |            |            |            |
| Phenols                 |             |       |          |            |            |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      |            | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    |            |            |            |            |            |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |            |            |
| Benzene                 | \$*         | <2    | ug/kg    |            | <2         |            | 5          | 4          |            |
| Toluene                 | \$*         | <5    | ug/kg    |            | <5         |            | <5         | <5         |            |
| Ethylbenzene            | \$*         | <2    | ug/kg    |            | <2         |            | <2         | <2         |            |
| p & m-xylene            | \$*         | <2    | ug/kg    |            | <2         |            | <2         | <2         |            |
| o-xylene                | \$*         | <2    | ug/kg    |            | <2         |            | <2         | <2         |            |
| МТВЕ                    | \$*         | <5    | ug/kg    |            | <5         |            | <5         | <5         |            |
| ТАМЕ                    | \$*         | < 5   | ug/kg    |            | < 5        |            | < 5        | < 5        |            |



## Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            |             |       | Lab No   | 2066856    |
|----------------------------|-------------|-------|----------|------------|
|                            |             | .Sa   | ample ID | F-TP117    |
|                            |             |       | Depth    | 0.50       |
|                            |             |       | Other ID |            |
|                            |             | Sam   | ple Type | ES         |
|                            |             | Sampl | ing Date | 27/09/2022 |
|                            |             | Sampl | ing Time | n/s        |
| Test                       | Method      | LOD   | Units    | -          |
| VOCs                       |             |       |          |            |
| Vinyl Chloride             | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,1-dichloroethane         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 2,2-dichloropropane        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Bromochloromethane         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Chloroform                 | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,1-dichloropropene        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Carbon tetrachloride       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Benzene                    | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2-dichloroethane         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Trichloroethylene          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2-dichloropropane        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Dibromomethane             | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Bromodichloromethane       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Toluene                    | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Tetrachloroethylene        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,3-dichloropropane        | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Dibromochloromethane       | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2-dibromoethane          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Chlorobenzene              | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Ethylbenzene               | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| m+p-Xylene                 | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| o-Xylene                   | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Styrene                    | DETSC 3431* | 0.01  | mg/kg    | < 0.01     |
| Bromoform                  | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Isopropylbenzene           | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Bromobenzene               | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| n-propylbenzene            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 2-chlorotoluene            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 4-chlorotoluene            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |



## Summary of Chemical Analysis Soil VOC/SVOC Samples

|                             |             |        | Lab No   | 2066856    |
|-----------------------------|-------------|--------|----------|------------|
|                             |             | .Sa    | ample ID | F-TP117    |
|                             |             |        | Depth    | 0.50       |
|                             |             | (      | Other ID |            |
|                             |             | Sam    | ple Type | ES         |
|                             |             | Sampl  | ing Date | 27/09/2022 |
|                             |             | Sampli | ing Time | n/s        |
| Test                        | Method      | LOD    | Units    |            |
| Tert-butylbenzene           | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2,4-trimethylbenzene      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| sec-butylbenzene            | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| p-isopropyltoluene          | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| n-butylbenzene              | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Hexachlorobutadiene         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| MTBE                        | DETSC 3431* | 0.01   | mg/kg    | < 0.01     |
| SVOCs                       |             |        |          |            |
| Phenol                      | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| Aniline                     | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| 2-Chlorophenol              | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| Benzyl Alcohol              | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2-Methylphenol              | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 3&4-Methylphenol            | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2,4-Dimethylphenol          | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2,4-Dichlorophenol          | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 4-Chloro-3-methylphenol     | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1    | mg/kg    | 0.2        |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| 2,4,6-Trichlorophenol       | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2-Nitroaniline              | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| 3-Nitroaniline              | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| 4-Nitrophenol               | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| Dibenzofuran                | DETSC 3433  | 0.1    | mg/kg    | 0.2        |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |
| Diethylphthalate            | DETSC 3433  | 0.1    | mg/kg    | < 0.1      |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1    | mg/kg    | < 0.1      |



## Summary of Chemical Analysis Soil VOC/SVOC Samples

|                            |             |       | Lab No   | 2066856    |
|----------------------------|-------------|-------|----------|------------|
|                            |             | .Sa   | ample ID | F-TP117    |
|                            |             |       | Depth    | 0.50       |
|                            |             |       | Other ID |            |
|                            |             | Sam   | ple Type | ES         |
|                            |             | Samp  | ing Date | 27/09/2022 |
|                            |             | Sampl | ing Time | n/s        |
| Test                       | Method      | LOD   | Units    |            |
| 4-Nitroaniline             | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2-Methyl-4,6-Dinitrophenol | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Diphenylamine              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 4-Bromophenylphenylether   | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Hexachlorobenzene          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Pentachlorophenol          | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Di-n-butylphthalate        | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Butylbenzylphthalate       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Di-n-octylphthalate        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Dimethylphthalate          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Azobenzene                 | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Carbazole                  | DETSC 3433* | 0.1   | mg/kg    | 0.5        |



#### **Leachate Samples**

|                            |             |  | Lah No   | 2066865    | 2066866    | 2066867    | 2066868    | 2066869    |
|----------------------------|-------------|--|----------|------------|------------|------------|------------|------------|
|                            |             | .Si  | ample ID | F-TP115    | F-TP115    | F-TP117    | F-TP119    | F-TP119    |
|                            |             | ••••   | Depth    | 0.30       | 2.30       | 1.50       | 0.70       | 2.70       |
|                            |             |  | Other ID |            |            |            |            |            |
|                            |             | Sam  | ple Type | ES         | ES         | ES         | ES         | ES         |
|                            |             | Samp   | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                            |             | Sampl  | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                       | Method      | LOD  | Units    | · * 1      | ·          | ·          | <u> </u>   | i          |
| Preparation                |             |  |          |            |            |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |  |          | Y          | Y          | Y          | Y          | Y          |
| Metals                     | I           | ·  |          | <u> </u>   | . <u> </u> | <u> </u>   | <u> </u>   |            |
| Aluminium, Dissolved       | DETSC 2306  | 10   | ug/l     | 570        | 670        | 51         | 330        | 1200       |
| Arsenic, Dissolved         | DETSC 2306  | 0.16   | ug/l     | 1.6        | 3.6        | 5.7        | 1.5        | 0.96       |
| Beryllium, Dissolved       | DETSC 2306* | 0.1  | ug/l     | < 0.1      | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Boron, Dissolved           | DETSC 2306* | 12   | ug/l     | 29         | 46         | 81         | 23         | 14         |
| Cadmium, Dissolved         | DETSC 2306  | 0.03   | ug/l     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306* | 1  | ug/l     | < 1.0      | < 1.0      | 17         | 3.9        | 12         |
| Chromium, Hexavalent       | DETSC 2203  | 0.007  | mg/l     | < 0.007    | < 0.007    | 0.020      | 0.019      | < 0.007    |
| Copper, Dissolved          | DETSC 2306  | 0.4  | ug/l     | 2.3        | 2.6        | 2.2        | 3.7        | 8.1        |
| Iron, Dissolved            | DETSC 2306  | 5.5  | ug/l     | 9.9        | 14         | < 5.5      | < 5.5      | < 5.5      |
| Lead, Dissolved            | DETSC 2306  | 0.09   | ug/l     | 0.53       | 1.3        | 6.7        | 0.29       | 1.4        |
| Manganese, Dissolved       | DETSC 2306  | 0.22   | ug/l     | 0.54       | 0.36       | 1.1        | 0.25       | < 0.22     |
| Mercury, Dissolved         | DETSC 2306  | 0.01   | ug/l     | 0.02       | 0.08       | < 0.01     | 0.06       | 0.03       |
| Molybdenum, Dissolved      | DETSC 2306  | 1.1  | ug/l     | < 1.1      | 1.4        | 1.2        | 6.8        | 2.5        |
| Nickel, Dissolved          | DETSC 2306  | 0.5  | ug/l     | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Phosphorus as P, Dissolved | DETSC 2306  | 18   | ug/l     | < 18       | 46         | 140        | < 18       | < 18       |
| Selenium, Dissolved        | DETSC 2306  | 0.25   | ug/l     | 0.60       | 0.98       | 0.97       | 0.55       | 1.1        |
| Tin, Dissolved             | DETSC 2306* | 0.4  | ug/l     | < 0.4      | < 0.4      | < 0.4      | < 0.4      | < 0.4      |
| Vanadium, Dissolved        | DETSC 2306  | 0.6  | ug/l     | 36         | 89         | 120        | 72         | 49         |
| Zinc, Dissolved            | DETSC 2306  | 1.3  | ug/l     | 2.2        | 2.9        | < 1.3      | 2.2        | < 1.3      |
| Inorganics                 | 1           | <u>.                                    </u> |          | I          | I          | ı          | ı          |            |
| pH                         | DETSC 2008  |  | pН       | 8.4        | 9.7        | 9.0        | 10.6       | 11.6       |
| Cyanide, Total Low Level   | DETSC 2131  | 0.1  | ug/l     | < 0.1      | 1.0        | 0.1        | 0.3        | < 0.1      |
| Cyanide, Free Low Level    | DETSC 2131  | 0.1  | ug/l     | < 0.1      | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                | DETSC 2130  | 20   | ug/l     | 27         | 28         | < 20       | 29         | < 20       |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1  | mg/l     | 57.6       | 82.4       | 79.7       | 80.9       | 143        |
| Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015  | mg/l     | 0.06       | 0.06       | 0.06       | 0.06       | 0.07       |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015  | mg/l     | 0.057      | 0.061      | 0.052      | 0.061      | 0.068      |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015  | mg/l     | 0.047      | 0.050      | 0.043      | 0.050      | 0.056      |
| Chloride                   | DETSC 2055  | 0.1  | mg/l     | 12         | 2.4        | 38         | 14         | 9.2        |
| Fluoride                   | DETSC 2055* | 0.1  | mg/l     | 0.11       | 0.20       | < 0.10     | 0.22       | 0.41       |
| Nitrate as NO3             | DETSC 2055  | 0.1  | mg/l     | 0.40       | 0.35       | 3.4        | 1.6        | 0.99       |
| Nitrite as NO2             | DETSC 2055  | 0.1  | mg/l     | 0.14       | < 0.10     | 0.35       | 0.21       | 0.34       |
| Ortho Phosphate as P       | DETSC 2205  | 0.01   | mg/l     | 0.03       | 0.03       | 0.09       | 0.04       | 0.01       |
| Sulphate as SO4            | DETSC 2055  | 0.1  | mg/l     | 40         | 31         | 82         | 27         | 17         |
| Total Organic Carbon       | DETSC 2085  | 1  | mg/l     | 3.9        | 4.3        | 3.4        | 1500       | 11         |



#### **Leachate Samples**

|   |             |       | Lab No   | 2066865    | 2066866    | 2066867    | 2066868    | 2066869    |
|---|-------------|-------|----------|------------|------------|------------|------------|------------|
|   |             | .Sa   | ample ID | F-TP115    | F-TP115    | F-TP117    | F-TP119    | F-TP119    |
|   |             |       | Depth    | 0.30       | 2 30       | 1 50       | 0.70       | 2 70       |
|   |             |       | Other ID | 0.50       | 2.50       | 1.50       | 0.70       | 2.70       |
|   |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         |
|   |             | Samp  | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|   |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test  | Method      | LOD   | Units    |            |            | -          |            |            |
| Petroleum Hydrocarbons                      |             |       |          |            |            |            |            |            |
| Aliphatic C5-C6: HS 1D AL                   | DETSC 3322  | 0.1   | ug/l     |            |            |            | < 0.1      |            |
| Aliphatic C6-C8: HS 1D AL                   | DETSC 3322  | 0.1   | ug/l     |            |            |            | < 0.1      |            |
| Aliphatic C8-C10: HS 1D AL                  | DETSC 3322  | 0.1   | ug/l     |            |            |            | < 0.1      |            |
| Aliphatic C10-C12: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     |            |            |            | < 1.0      |            |
| Aliphatic C12-C16: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     |            |            |            | < 1.0      |            |
| Aliphatic C16-C21: EH CU 1D AL              | DETSC 3072* | 1     | ug/l     |            |            |            | 4.9        |            |
| Aliphatic C21-C35: EH CU 1D AL              | DETSC 3072* | 1     | ug/l     |            |            |            | 10         |            |
| Aliphatic C5-C35: EH_CU+HS_1D_AL            | DETSC 3072* | 10    | ug/l     |            |            |            | 16         |            |
| Aromatic C5-C7: HS 1D AR                    | DETSC 3322  | 0.1   | ug/l     |            |            |            | < 0.1      |            |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3322  | 0.1   | ug/l     |            |            |            | < 0.1      |            |
| Aromatic C8-C10: HS 1D AR                   | DETSC 3322  | 0.1   | ug/l     |            |            |            | < 0.1      |            |
| Aromatic C10-C12: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     |            |            |            | < 1.0      |            |
| Aromatic C12-C16: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     |            |            |            | < 1.0      |            |
| Aromatic C16-C21: EH CU 1D AR               | DETSC 3072* | 1     | ug/l     |            |            |            | < 1.0      |            |
| Aromatic C21-C35: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     |            |            |            | < 1.0      |            |
| Aromatic C5-C35: EH_CU+HS_1D_AR             | DETSC 3072* | 10    | ug/l     |            |            |            | < 10       |            |
|   |             |       |          |            |            |            |            |            |
| TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total | DETSC 3072* | 10    | ug/l     |            |            |            | 16         |            |
| Benzene                                     | DETSC 3322  | 1     | ug/l     |            |            |            | < 1.0      |            |
| Toluene                                     | DETSC 3322  | 1     | ug/l     |            |            |            | < 1.0      |            |
| Ethylbenzene                                | DETSC 3322  | 1     | ug/l     |            |            |            | < 1.0      |            |
| Xylene                                      | DETSC 3322  | 1     | ug/l     |            |            |            | < 1.0      |            |
| PAHs  |             |       |          |            |            |            |            |            |
| Acenaphthene                                | DETSC 3304  | 0.01  | ug/l     | 0.05       | 0.02       | 0.02       | 0.02       | 0.39       |
| Acenaphthylene                              | DETSC 3304  | 0.01  | ug/l     | 0.03       | 0.02       | < 0.01     | < 0.01     | 0.02       |
| Anthracene                                  | DETSC 3304  | 0.01  | ug/l     | 0.04       | 0.06       | 0.04       | 0.05       | 0.20       |
| Benzo(a)anthracene                          | DETSC 3304* | 0.01  | ug/l     | 0.06       | 0.04       | < 0.01     | < 0.01     | 0.05       |
| Benzo(a)pyrene                              | DETSC 3304  | 0.01  | ug/l     | 0.06       | 0.03       | < 0.01     | < 0.01     | 0.03       |
| Benzo(b)fluoranthene                        | DETSC 3304  | 0.01  | ug/l     | 0.11       | 0.06       | < 0.01     | < 0.01     | 0.05       |
| Benzo(g,h,i)perylene                        | DETSC 3304  | 0.01  | ug/l     | 0.05       | 0.03       | < 0.01     | < 0.01     | 0.02       |
| Benzo(k)fluoranthene                        | DETSC 3304  | 0.01  | ug/l     | 0.04       | 0.02       | < 0.01     | < 0.01     | 0.02       |
| Chrysene                                    | DETSC 3304  | 0.01  | ug/l     | 0.07       | 0.04       | < 0.01     | < 0.01     | 0.05       |
| Dibenzo(a,h)anthracene                      | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Fluoranthene                                | DETSC 3304  | 0.01  | ug/l     | 0.10       | 0.06       | 0.02       | 0.04       | 0.18       |
| Fluorene                                    | DETSC 3304  | 0.01  | ug/l     | 0.05       | 0.04       | 0.04       | 0.04       | 0.11       |
| Indeno(1,2,3-c,d)pyrene                     | DETSC 3304  | 0.01  | ug/l     | 0.04       | 0.02       | < 0.01     | < 0.01     | 0.02       |
| Naphthalene                                 | DETSC 3304  | 0.05  | ug/l     | 0.07       | 0.06       | < 0.05     | 0.06       | 0.90       |
| Phenanthrene                                | DETSC 3304  | 0.01  | ug/l     | 0.17       | 0.14       | 0.12       | 0.14       | 0.52       |
| Pyrene                                      | DETSC 3304  | 0.01  | ug/l     | 0.13       | 0.08       | 0.02       | 0.03       | 0.16       |



#### **Leachate Samples**

|                         |             |       | Lab No   | 2066865    | 2066866    | 2066867    | 2066868    | 2066869    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP115    | F-TP115    | F-TP117    | F-TP119    | F-TP119    |
|                         |             |       | Depth    | 0.30       | 2.30       | 1.50       | 0.70       | 2.70       |
|                         |             |       | Other ID |            |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |            |
| PAH Total               | DETSC 3304  | 0.2   | ug/l     | 1.1        | 0.71       | 0.28       | 0.37       | 2.7        |
| PCBs                    | I.          |       |          |            |            |            |            |            |
| PCB 28 + PCB 31         | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 52                  | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 77                  | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 81                  | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 101                 | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 105                 | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 114                 | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 118 + PCB 123       | DETSC 3402  | 0.6   | ug/l     |            |            |            | < 0.6      |            |
| PCB 126                 | DETSC 3402  | 0.5   | ug/l     |            |            |            | < 0.5      |            |
| PCB 138                 | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 153                 | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 156                 | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 157                 | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 167                 | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 169                 | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 180                 | DETSC 3402  | 0.2   | ug/l     |            |            |            | < 0.2      |            |
| PCB 189                 | DETSC 3402  | 0.3   | ug/l     |            |            |            | < 0.3      |            |
| PCB 12                  | DETSC 3402  | 1     | ug/l     |            |            |            | < 1.0      |            |
| PCB 7 Total             | DETSC 3402  | 1     | ug/l     |            |            |            | < 1.0      |            |
| Phenols                 |             |       |          |            |            |            |            |            |
| Phenol                  | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| p-cresol                | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.1   | ug/l     |            |            |            | < 0.10     |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |            |
| Hexavalent Chromium     | \$*         | <2    | ug/kg    |            | <2         |            |            |            |

# *I* DETS

## Summary of Asbestos Analysis

#### **Soil Samples**

Our Ref 22-19762 Client Ref 60678042 Contract Title NZT FEED GI

| Lab No  | Sample ID    | Material Type | Result             | Comment*  | Analyst         |
|---------|--------------|---------------|--------------------|---|-----------------|
| 2066853 | F-TP115 0.30 | SOIL          | Chrysotile         | Bundles of Chrysotile fibres  | Darryl Fletcher |
| 2066854 | F-TP115 1.50 | SOIL          | Chrysotile Amosite | Bundles of Chrysotile & Amosite fibres  | Darryl Fletcher |
| 2066855 | F-TP115 2.30 | SOIL          | Amosite Chrysotile | Bundles of Amosite & Chrysotile fibres  | Darryl Fletcher |
| 2066856 | F-TP117 0.50 | SOIL          | NAD                | none  | Darryl Fletcher |
| 2066857 | F-TP117 1.50 | SOIL          | NAD                | none  | Darryl Fletcher |
| 2066858 | F-TP117 2.50 | SOIL          | NAD                | none  | Darryl Fletcher |
| 2066859 | F-TP119 0.20 | SOIL          | Chrysotile         | Chrysotile fibres present in microscopic<br>Loose Fibrous Asbestos Debris   | Darryl Fletcher |
| 2066860 | F-TP119 0.70 | SOIL          | NAD                | none  | Darryl Fletcher |
| 2066861 | F-TP119 1.70 | SOIL          | Chrysotile Amosite | Bundles of Chrysotile fibres & Chrysotile<br>& Amosite fibres present in microscopic<br>Loose Fibrous Asbestos Debris | Darryl Fletcher |
| 2066862 | F-TP119 2.70 | SOIL          | NAD                | none  | Darryl Fletcher |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* -not included in laboratory scope of accreditation.



## Summary of Asbestos Quantification Analysis Soil Samples

*Our Ref* 22-19762 *Client Ref* 60678042 *Contract Title* NZT FEED GI

|  |            | Lab No     | 2066853    | 2066854    | 2066855    | 2066859    |
|--|------------|------------|------------|------------|------------|------------|
|  |            | Sample ID  | F-TP115    | F-TP115    | F-TP115    | F-TP119    |
|  |            | Depth      | 0.30       | 1.50       | 2.30       | 0.20       |
|  |            | Other ID   |            |            |            |            |
|  | Sar        | nple Type  | ES         | ES         | ES         | ES         |
|  | Sam        | oling Date | 27/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 |
|  | Samp       | oling Time |            |            |            |            |
| Test   | Method     | Units      |            |            |            |            |
| Total Mass% Asbestos (a+b+c)                           | DETSC 1102 | Mass %     | 0.003      | 0.003      | 0.003      | 0.004      |
| Gravimetric Quantification (a)                         | DETSC 1102 | Mass %     | na         | na         | na         | 0.004      |
| Detailed Gravimetric Quantification (b)                | DETSC 1102 | Mass %     | 0.003      | 0.003      | 0.003      | na         |
| Quantification by PCOM (c)                             | DETSC 1102 | Mass %     | na         | na         | na         | na         |
| Potentially Respirable Fibres (d)                      | DETSC 1102 | Fibres/g   | na         | na         | na         | na         |
| Breakdown of Gravimetric Analysis (a)                  |            |            |            |            |            |            |
| Mass of Sample   |            | g          | 50.95      | 1539.47    | 855.21     | 1710.47    |
| ACMs present*  |            | type       |            |            |            | LFAD       |
| Mass of ACM in sample                                  |            | g          |            |            |            | 0.07       |
| % ACM by mass  |            | %          |            |            |            | 0.00       |
| % asbestos in ACM                                      |            | %          |            |            |            | 85         |
| % asbestos in sample                                   |            | %          |            |            |            | 0.004      |
| Breakdown of Detailed Gravimetric Analysis (b)         |            |            |            |            |            |            |
| % Amphibole bundles in sample                          |            | Mass %     | na         | 0.001      | 0.001      | na         |
| % Chrysotile bundles in sample                         |            | Mass %     | 0.003      | 0.002      | 0.002      | na         |
| Breakdown of PCOM Analysis (c)                         |            |            |            |            |            |            |
| % Amphibole fibres in sample                           |            | Mass %     | na         | na         | na         | na         |
| % Chrysotile fibres in sample                          |            | Mass %     | na         | na         | na         | na         |
| Breakdown of Potentially Respirable Fibre Analysis (d) |            |            |            |            |            |            |
| Amphibole fibres                                       |            | Fibres/g   | na         | na         | na         | na         |
| Chrysotile fibres                                      |            | Fibres/g   | na         | na         | na         | na         |

\* Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264. Recommended sample size for quantification is approximately 1kg # denotes deviating sample



## Summary of Asbestos Quantification Analysi Soil Samples

*Our Ref* 22-19762 *Client Ref* 60678042 *Contract Title* NZT FEED GI

|  |            | Lab No     | 2066861    |
|--|------------|------------|------------|
|  | .:         | Sample ID  | F-TP119    |
|  |            | Depth      | 1.70       |
|  |            | Other ID   |            |
|  | Sar        | nple Type  | ES         |
|  | Samj       | oling Date | 27/09/2022 |
|  | Samp       | oling Time |            |
| Test   | Method     | Units      |            |
| Total Mass% Asbestos (a+b+c)                           | DETSC 1102 | Mass %     | 0.015      |
| Gravimetric Quantification (a)                         | DETSC 1102 | Mass %     | 0.003      |
| Detailed Gravimetric Quantification (b)                | DETSC 1102 | Mass %     | 0.011      |
| Quantification by PCOM (c)                             | DETSC 1102 | Mass %     | na         |
| Potentially Respirable Fibres (d)                      | DETSC 1102 | Fibres/g   | na         |
| Breakdown of Gravimetric Analysis (a)                  |            |            |            |
| Mass of Sample   |            | g          | 1472.84    |
| ACMs present*  |            | type       | LFAD       |
| Mass of ACM in sample                                  |            | g          | 0.06       |
| % ACM by mass  |            | %          | 0.00       |
| % asbestos in ACM                                      |            | %          | 85         |
| % asbestos in sample                                   |            | %          | 0.003      |
| Breakdown of Detailed Gravimetric Analysis (b)         |            |            |            |
| % Amphibole bundles in sample                          |            | Mass %     | na         |
| % Chrysotile bundles in sample                         |            | Mass %     | 0.011      |
| Breakdown of PCOM Analysis (c)                         |            |            |            |
| % Amphibole fibres in sample                           |            | Mass %     | na         |
| % Chrysotile fibres in sample                          |            | Mass %     | na         |
| Breakdown of Potentially Respirable Fibre Analysis (d) |            |            |            |
| Amphibole fibres                                       |            | Fibres/g   | na         |
| Chrysotile fibres                                      |            | Fibres/g   | na         |

 \* Denotes test or material description outside of UKAS accreditation.
% asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.
Recommended sample size for quantification is approximately 1kg # denotes deviating sample



Inappropriate

#### Information in Support of the Analytical Results

*Our Ref* 22-19762 *Client Ref* 60678042 *Contract* NZT FEED GI

#### **Containers Received & Deviating Samples**

#### container for Date Sampled Containers Received Holding time exceeded for tests Lab No Sample ID tests 2066853 F-TP115 0.30 SOIL GJ 250ml, GJ 60ml, PT 1L 27/09/22 Ammonia (3 days) 2066854 F-TP115 1.50 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L 2066855 F-TP115 2.30 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) Ammonia (3 days) 2066856 F-TP117 0.50 SOIL 27/09/22 GJ 250ml. GJ 60ml. PT 1L 2066857 F-TP117 1.50 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2066858 F-TP117 2.50 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2066859 F-TP119 0.20 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2066860 F-TP119 0.70 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L 2066861 F-TP119 1.70 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L F-TP119 2.70 SOIL 2066862 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2066863 F-TP119 3.00 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2066864 F-TP119 4.00 SOIL 27/09/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2066865 F-TP115 0.30 LEACHATE 27/09/22 GJ 250ml, GJ 60ml, PT 1L 2066866 F-TP115 2.30 LEACHATE 27/09/22 GJ 250ml, GJ 60ml, PT 1L 2066867 F-TP117 1.50 LEACHATE 27/09/22 GJ 250ml, GJ 60ml, PT 1L F-TP119 0.70 LEACHATE 2066868 27/09/22 GJ 250ml, GJ 60ml, PT 1L F-TP119 2.70 LEACHATE 27/09/22 GJ 250ml, GJ 60ml, PT 1L 2066869

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of  $28^{\circ}C$  +/- $2^{\circ}C$ .

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



#### Information in Support of the Analytical Results

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

#### List of HWOL Acronyms and Operators

#### Det

| Det                      | Acronym           |
|--------------------------|-------------------|
| Aliphatic C5-C6          | HS_1D_AL          |
| Aliphatic C6-C8          | HS_1D_AL          |
| Aliphatic C8-C10         | HS_1D_AL          |
| Aliphatic C10-C12        | EH_CU_1D_AL       |
| Aliphatic C12-C16        | EH_CU_1D_AL       |
| Aliphatic C16-C21        | EH_CU_1D_AL       |
| Aliphatic C21-C35        | EH_CU_1D_AL       |
| Aliphatic C35-C40        | EH_CU_1D_AL       |
| Aliphatic C5-C40         | EH_CU+HS_1D_AL    |
| Aromatic C5-C7           | HS_1D_AR          |
| Aromatic C7-C8           | HS_1D_AR          |
| Aromatic C8-C10          | HS_1D_AR          |
| Aromatic C10-C12         | EH_CU_1D_AR       |
| Aromatic C12-C16         | EH_CU_1D_AR       |
| Aromatic C16-C21         | EH_CU_1D_AR       |
| Aromatic C21-C35         | EH_CU_1D_AR       |
| Aromatic C35-C40         | EH_CU_1D_AR       |
| Aromatic C5-C40          | EH_CU+HS_1D_AR    |
| TPH Ali/Aro C5-C40       | EH_CU+HS_1D_Total |
| Aliphatic C5-C35         | EH_CU+HS_1D_AL    |
| Aromatic C5-C35          | EH_CU+HS_1D_AR    |
| TPH Ali/Aro Total C5-C35 | EH_CU+HS_1D_Total |



Issued:

13-Oct-22

Certificate Number 22-20035

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-20035
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 7 Soil samples.
  - Date Received 07-Oct-22
  - Date Started 07-Oct-22
- Date Completed 13-Oct-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

logwood

Kirk Bridgewood General Manager





|                                 |             | Lab No |               | 2068166    | 2068167    | 2068168    | 2068169    | 2068170    | 2068171     | 2068172     |
|---------------------------------|-------------|--------|---------------|------------|------------|------------|------------|------------|-------------|-------------|
|                                 |             | .Sa    | .Sample ID    |            | F-BH114    | F-BH114    | F-BH114    | F-BH114    | F-BH114     | F-BH114     |
|                                 |             |        | Depth         |            | 5.40-6.00  | 6.00-6.90  | 8.30-9.00  | 9.00-9.70  | 11.40-12.00 | 12.93-13.45 |
|                                 |             |        | Other ID      |            |            |            |            |            |             |             |
|                                 |             | Sam    | Sample Type   |            | В          | В          | В          | В          | В           | В           |
|                                 |             | Sampl  | ing Date      | 03/10/2022 | 03/10/2022 | 03/10/2022 | 03/10/2022 | 03/10/2022 | 20/09/2022  | 03/10/2022  |
|                                 |             | Sampl  | Sampling Time |            | n/s        | n/s        | n/s        | n/s        | n/s         | n/s         |
| Test                            | Method      | LOD    | Units         |            |            |            |            |            |             |             |
| Inorganics                      |             |        |               |            |            |            |            |            |             |             |
| рН                              | DETSC 2008# |        | рН            | 10.6       |            | 8.6        |            |            |             |             |
| Organic matter                  | DETSC 2002# | 0.1    | %             |            | 1.2        |            | < 0.1      |            | 0.7         | 3.5         |
| Carbonate (as CO2)              | DETSC 2005  | 1      | %             |            |            | 4.8        |            | 3.6        |             |             |
| Chloride Aqueous Extract        | DETSC 2055  | 1      | mg/l          | 25         |            | 17         |            |            |             |             |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l          | 960        |            | 240        |            |            |             |             |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %             | 0.14       |            | 0.05       |            |            |             |             |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %             | 0.25       |            | 0.09       |            |            |             |             |



#### Information in Support of the Analytical Results

*Our Ref* 22-20035 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | •        |                     | Holding time | Inappropriate |
|---------|--------------------------|----------|---------------------|--------------|---------------|
|         |                          | Date     |                     | exceeded for | container for |
| Lab No  | Sample ID                | Sampled  | Containers Received | tests        | tests         |
| 2068166 | F-BH114 3.00-3.70 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068167 | F-BH114 5.40-6.00 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068168 | F-BH114 6.00-6.90 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068169 | F-BH114 8.30-9.00 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068170 | F-BH114 9.00-9.70 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068171 | F-BH114 11.40-12.00 SOIL | 20/09/22 | PT 1L               |              |               |
| 2068172 | F-BH114 12.93-13.45 SOIL | 03/10/22 | PT 1L               |              |               |

#### Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued:

Certificate Number 22-20036

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- *Our Reference* 22-20036
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description 3 Soil samples.
  - Date Received 07-Oct-22
  - Date Started 07-Oct-22
- Date Completed 13-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk 13-Oct-22



|                                 |             |      | Lab No    | 2068173    | 2068174    | 2068175     |
|---------------------------------|-------------|------|-----------|------------|------------|-------------|
|                                 |             | .S   | ample ID  | F-BH102    | F-BH102    | F-BH102     |
|                                 |             |      | Depth     | 6.75-7.15  | 8.27-9.00  | 11.44-12.00 |
|                                 |             |      | Other ID  |            |            |             |
|                                 |             | Sam  | ple Type  | В          | В          | В           |
|                                 |             | Samp | ling Date | 03/10/2022 | 03/10/2022 | 03/10/2022  |
|                                 |             | Samp | ling Time | n/s        | n/s        | n/s         |
| Test                            | Method      | LOD  | Units     |            |            |             |
| Inorganics                      |             |      |           |            |            |             |
| рН                              | DETSC 2008# |      | рН        | 11.1       |            | 10.3        |
| Organic matter                  | DETSC 2002# | 0.1  | %         |            | 0.1        |             |
| Carbonate (as CO2)              | DETSC 2005  | 1    | %         |            | 2.8        | 6.8         |
| Chloride Aqueous Extract        | DETSC 2055  | 1    | mg/l      | 12         |            | 14          |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10   | mg/l      | 530        |            | 230         |
| Sulphur as S, Total             | DETSC 2320  | 0.01 | %         | 0.23       |            | 0.04        |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01 | %         | 0.54       |            | 0.17        |



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#### Information in Support of the Analytical Results

*Our Ref* 22-20036 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                          | Date     |                     | exceeded for | container for |
|---------|--------------------------|----------|---------------------|--------------|---------------|
| Lab No  | Sample ID                | Sampled  | Containers Received | tests        | tests         |
| 2068173 | F-BH102 6.75-7.15 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068174 | F-BH102 8.27-9.00 SOIL   | 03/10/22 | PT 1L               |              |               |
| 2068175 | F-BH102 11.44-12.00 SOIL | 03/10/22 | PT 1L               |              |               |

Key: P-Plastic T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Issued: 02-Nov-22

Certificate Number 22-20306 Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-20306
- Client Reference 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - *Description* 9 Soil samples, 3 Leachate samples.
  - Date Received 11-Oct-22

| Date Started 11-Oct | t-22 |
|---------------------|------|
|---------------------|------|

- *Date Completed* 02-Nov-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

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Kirk Bridgewood General Manager





|                                 |             |        |          | 2000000            | 222220             | 2262522            | 2252522            | 2252522            | 2252522            | 200000             |
|---------------------------------|-------------|--------|----------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                 |             |        |          | 2069597<br>F-TP104 | 2069598<br>F-TP104 | 2069599<br>F-TP104 | 2069600<br>F-TP104 | 2069602<br>E-TP105 | 2069603<br>F-TP105 | 2069604<br>E-TP105 |
|                                 |             | .58    | Donth    | 0.50               | 1-11-104           | 1-11-104           | 1-11-104           | 1-11-105           | 1-11103            | 1-11/103           |
|                                 |             |        | Depth    | 0.50               | 1.50               | 2.40               | 3.40               | 0.50               | 1.80               | 2.80               |
|                                 |             | Sam    | Juner ID | FC                 | 50                 |                    |                    |                    |                    |                    |
|                                 |             | Sampl  | ing Data | ES                 | ES                 | ES                 | ES                 | ES                 | ES                 | ES                 |
|                                 |             | Sampli | ng Timo  | 05/10/2022         | 05/10/2022         | 05/10/2022         | 05/10/2022         | 05/10/2022         | 05/10/2022         | 05/10/2022         |
| Test                            | Method      |        | lig inne | 11/5               | 11/5               | 11/5               | 11/5               | 11/5               | 11/5               | 11/5               |
| Preparation                     | Wiethou     | 100    | Onits    |                    |                    |                    |                    |                    |                    |                    |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 83                 | 13                 | 17                 | 20                 | 8 8                | 71                 | 17                 |
| Metals                          | DL13C 1004  | 0.1    | 70       | 0.5                | 15                 | 17                 | 20                 | 0.0                | /.1                | 17                 |
| Aluminium                       | DFTSC 2301* | 1      | mg/kg    | 67000              | 64000              | 6800               | 3500               | 37000              | 2500               | 880                |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 79                 | 6.9                | 6000               | 5500               | 37000              | 2300               | 4.8                |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 5.6                | 6.2                | 0.0                | 0.0                | 3.7                | 0.3                | < 0.2              |
| Boron Water Soluble             | DETSC 2301# | 0.2    | mg/kg    | 2.8                | 2.8                | 1 3                | 0.4                | 1.9                | 1.2                | 1 4                |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | < 0.1              | 0.2                | < 0.1              | < 0.1              | 0.3                | 0.1                | < 0.1              |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 24                 | 17                 | 5.6                | 4.4                | 130                | 3.5                | 2.3                |
| Chromium Hexavalent             | DETSC 2204* | 1      | mg/kg    | < 1.0              | < 1.0              | < 1.0              | < 1.0              | < 1.0              | < 1.0              | < 1.0              |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 9.5                | 10                 | 5.2                | 3.1                | 24                 | 7.3                | 3.1                |
| Iron                            | DETSC 2301  | 25     | mg/kg    | 12000              | 6700               | 7300               | 6300               | 79000              | 7100               | 4000               |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 3.8                | 12                 | 22                 | 11                 | 19                 | 30                 | 18                 |
| Manganese                       | DETSC 2301# | 20     | mg/kg    | 3800               | 3700               | 470                | 280                | 3500               | 230                | 100                |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05             | < 0.05             | < 0.05             | < 0.05             | < 0.05             | < 0.05             | < 0.05             |
| Molvbdenum                      | DETSC 2301# | 0.4    | mg/kg    | 1.1                | 1.0                | 0.4                | 0.9                | 3.0                | 0.5                | < 0.4              |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 5.1                | 2.2                | 3.7                | 2.5                | 9.8                | 3.7                | 2.3                |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 230                | 150                | 140                | 160                | 610                | 130                | 100                |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 3.0                | 3.3                | 0.8                | < 0.5              | 2.3                | < 0.5              | < 0.5              |
| Tin                             | DETSC 2301  | 1      | mg/kg    | < 1.0              | < 1.0              | < 1.0              | < 1.0              | 1.3                | 1.3                | < 1.0              |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 83                 | 81                 | 20                 | 13                 | 120                | 12                 | 7.7                |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 20                 | 37                 | 55                 | 32                 | 120                | 65                 | 28                 |
| Inorganics                      | · · · · · · |        | <u>.</u> |                    |                    |                    |                    |                    |                    |                    |
| рН                              | DETSC 2008# |        | pН       | 9.8                | 10.7               | 10.1               | 8.7                | 11.4               | 8.1                | 8.2                |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | < 0.1              | < 0.1              | 0.1                | < 0.1              | 0.3                | 19                 | 16                 |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1              | < 0.1              | < 0.1              | < 0.1              | < 0.1              | < 0.1              | < 0.1              |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | < 0.6              | < 0.6              | < 0.6              | < 0.6              | < 0.6              | < 0.6              | < 0.6              |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 2.7                | 0.1                | 0.1                | < 0.1              | < 0.1              | 0.3                | 0.1                |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 2.3                | 0.91               | 1.2                | 0.73               | 0.55               | 0.73               | 0.53               |
| Chloride                        | DETSC 2055  | 1      | mg/kg    | < 100.0            | 26.4               | 152                | < 50.0             | 27.6               | 10.3               | 107                |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    | 15                 | 25                 | 11                 | < 50.00            | 8.6                | 6.0                | 2.3                |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | 3.1                | 8.1                | 1.8                | < 50.00            | 4.3                | 4.3                | 1.3                |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | 0.37               | < 0.10             | < 0.10             | < 0.10             | < 0.10             | 0.36               | 0.82               |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 1600               | 800                | 310                | 140                | 460                | 150                | 150                |
| Sulphide                        | DETSC 2024* | 10     | mg/kg    | 1800               | 1900               | 26                 | 100                | 590                | 52                 | 36                 |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 18                 | 1.8                | 4.0                | < 0.75             | 1.7                | 2.3                | 3.4                |
| Sulphur as S, Total             | DETSC 2320  | 0.01   | %        | 0.45               | 0.39               | 0.07               | 0.04               | 0.25               | 0.03               | 0.03               |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01   | %        | 0.68               | 0.59               | 0.17               | 0.10               | 0.76               | 0.09               | 0.07               |
| Petroleum Hydrocarbons          | · · · · ·   |        |          |                    |                    |                    |                    |                    |                    |                    |
| Aliphatic C5-C6: HS_1D_AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01             | 0.30               | < 0.01             | 0.44               | 0.44               | 0.39               | 0.41               |
| Aliphatic C6-C8: HS_1D_AL       | DETSC 3321* | 0.01   | mg/kg    | < 0.01             | < 0.01             | < 0.01             | < 0.01             | < 0.01             | < 0.01             | < 0.01             |
| Aliphatic C8-C10: HS_1D_AL      | DETSC 3321* | 0.01   | mg/kg    | < 0.01             | < 0.01             | < 0.01             | < 0.01             | < 0.01             | < 0.01             | < 0.01             |



|                                       |             |       | Lah No   | 2060507    | 2060508    | 2060500    | 2069600    | 2069602    | 2069602    | 2069604    |
|---------------------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|------------|------------|
|                                       |             | S     | ample ID | F-TP104    | F-TP104    | F-TP104    | F-TP104    | F-TP105    | F-TP105    | F-TP105    |
|                                       |             |       | Depth    | 0.50       | 1.50       | 2.40       | 3.40       | 0.50       | 1.80       | 2.80       |
|                                       |             |       | Other ID | 0.50       | 1.50       | 2.10       | 5.10       | 0.50       | 1.00       | 2.00       |
|                                       |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampl | ing Date | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                                       |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD   | Units    | · · · · ·  |            |            | · · · · ·  |            |            |            |
| Aliphatic C10-C12: EH CU 1D AL        | DETSC 3072# | 1.5   | mg/kg    | 2.8        | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH CU 1D AL        | DETSC 3072# | 1.2   | mg/kg    | 44         | < 1.2      | < 1.2      | < 1.2      | < 1.2      | < 1.2      | < 1.2      |
| Aliphatic C16-C21: EH CU 1D AL        | DETSC 3072# | 1.5   | mg/kg    | 86         | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4   | mg/kg    | 36         | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4   | mg/kg    | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10    | mg/kg    | 170        | < 10       | < 10       | < 10       | < 10       | < 10       | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9   | mg/kg    | < 0.9      | < 0.9      | < 0.9      | < 0.9      | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5   | mg/kg    | 12         | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6   | mg/kg    | 38         | < 0.6      | < 0.6      | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4   | mg/kg    | 13         | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4   | mg/kg    | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10    | mg/kg    | 62         | < 10       | < 10       | < 10       | < 10       | < 10       | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10    | mg/kg    | 230        | < 10       | < 10       | < 10       | < 10       | < 10       | < 10       |
| PAHs                                  |             |       |          |            |            |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.03       | < 0.03     | 0.03       |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.03       | < 0.03     | < 0.03     |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.07       | < 0.03     | < 0.03     |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.04       | < 0.03     | < 0.03     |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.03       | < 0.03     | < 0.03     |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.07       | 0.04       | < 0.03     |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | 0.03       | < 0.03     | < 0.03     | 0.08       | 0.13       | 0.12       |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.03       | < 0.03     | < 0.03     |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.07       | 0.54       | 0.36       |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.04       | 0.05       | 0.10       |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | 0.04       | 0.04       | < 0.03     | < 0.03     | 0.09       | 0.11       | 0.10       |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | < 0.10     | < 0.10     | < 0.10     | < 0.10     | 0.52       | 0.86       | 0.68       |
| PCBs                                  |             |       |          |            |            |            |            |            |            |            |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 52                                | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 101                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 118                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 153                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 138                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 180                               | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |



|                         |             |       | Lab No   | 2069597    | 2069598    | 2069599    | 2069600    | 2069602    | 2069603    | 2069604    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP104    | F-TP104    | F-TP104    | F-TP104    | F-TP105    | F-TP105    | F-TP105    |
|                         |             |       | Depth    | 0.50       | 1.50       | 2.40       | 3.40       | 0.50       | 1.80       | 2.80       |
|                         |             |       | Other ID |            |            |            |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |            |            |            |
| PCB 77                  | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 81                  | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 105                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 114                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 118                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 123                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 126                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 156                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 157                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 167                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 169                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 189                 | DETSC 3401* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| PCB 7 Total             | DETSC 3401# | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| Phenols                 |             |       |          |            |            |            |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    | < 0.01     |            | < 0.01     |            |            |            |            |
| Acid Herbicides         |             |       |          |            |            |            |            |            |            |            |
| Mecoprop                | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| 2,4-D                   | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Bentazone               | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Picloram                | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| MCPA                    | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Clopyralid              | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Dicamba                 | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| 2,3,6-TBA               | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Dichlorprop             | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Bromoxynil              | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Triclopyr               | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Fenoprop                | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| МСРВ                    | DETSC 3447* | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| 2,4,5-T                 | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Fluroxypyr              | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| 2,4-DB                  | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| loxynil                 | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |
| Benazolin               | DETSC 3447  | 35    | ug/kg    |            |            |            |            | < 35       |            |            |


|                                  |                                    |        |          |            |            |            |            | 1          |            |            |
|----------------------------------|------------------------------------|--------|----------|------------|------------|------------|------------|------------|------------|------------|
|                                  |                                    | -      | Lab No   | 2069597    | 2069598    | 2069599    | 2069600    | 2069602    | 2069603    | 2069604    |
|                                  |                                    | .Sa    | imple ID | F-1P104    | F-1P104    | F-1P104    | F-1P104    | F-1P105    | F-1P105    | F-TP105    |
|                                  |                                    |        | Depth    | 0.50       | 1.50       | 2.40       | 3.40       | 0.50       | 1.80       | 2.80       |
|                                  |                                    | (      | Other ID |            |            |            |            |            |            |            |
|                                  |                                    | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                                  |                                    | Sampl  | ing Date | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 |
| Test                             | <b>N A</b> - <b>A b</b> - <b>A</b> | Sampli | ng Time  | n/s        |
| lest                             |                                    | LOD    | Units    |            |            |            |            | . 25       |            |            |
|                                  | DETSC 3447*                        | 35     | ug/kg    |            |            |            |            | < 35       |            |            |
|                                  |                                    | 0.1    |          |            |            |            |            | .0.1       |            |            |
| alpha-BHC                        | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| gamma-BHC (Lindane)              | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Deta-BHC                         | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| delta-BHC                        | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Heptachlor                       | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Aldrin                           | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Heptachlor epoxide               | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| gamma-Chlordane                  | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Endosulphan I & Alpha-chlorodane | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| 4,4-DDE                          | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Dieldrin                         | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Endrin                           | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Endosulphan II & 4,4-DDD         | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Endrin aldehyde                  | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| 4,4-DD1                          | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Endosulphan sulphate             | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Methoxychlor                     | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Endrin ketone                    | DETSC 3441*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| OPPs                             |                                    |        |          | r          |            |            |            |            | 1          |            |
| Dichlorvos                       | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Mevinphos                        | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Demeton-O                        | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Ethoprop                         | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Naled                            | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Phorate                          | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Demeton-S                        | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Diazinon                         | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Disulfoton                       | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Methylparathion                  | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Ronnel                           | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Fenthion                         | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Chlopyrifos                      | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Trichlorinate                    | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Merphos                          | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Stirofos                         | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Tokuthion                        | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Fensulfothion                    | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Bolstar                          | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Azinphos methyl                  | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |
| Coumaphos                        | DETSC 3433*                        | 0.1    | mg/kg    |            |            |            |            | < 0.1      |            |            |



|                        |        |        | Lab No   | 2069597    | 2069598    | 2069599    | 2069600    | 2069602    | 2069603    | 2069604    |
|------------------------|--------|--------|----------|------------|------------|------------|------------|------------|------------|------------|
|                        |        | .Sa    | ample ID | F-TP104    | F-TP104    | F-TP104    | F-TP104    | F-TP105    | F-TP105    | F-TP105    |
|                        |        |        | Depth    | 0.50       | 1.50       | 2.40       | 3.40       | 0.50       | 1.80       | 2.80       |
|                        |        | (      | Other ID |            |            |            |            |            |            |            |
|                        |        | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         | ES         |
|                        |        | Sampl  | ing Date | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                        |        | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                   | Method | LOD    | Units    |            |            |            |            |            |            |            |
| Subcontracted Analysis |        |        |          |            |            |            |            |            |            |            |
| Benzene                | \$*    | <2     | ug/kg    | <2         |            | <2         |            | <2         |            | 5          |
| Toluene                | \$*    | <5     | ug/kg    | <5         |            | <5         |            | <5         |            | <5         |
| Ethylbenzene           | \$*    | <2     | ug/kg    | <2         |            | <2         |            | <2         |            | <2         |
| p & m-xylene           | \$*    | <2     | ug/kg    | <2         |            | <2         |            | <2         |            | <2         |
| o-xylene               | \$*    | <2     | ug/kg    | <2         |            | <2         |            | <2         |            | <2         |
| MTBE                   | \$*    | <5     | ug/kg    | <5         |            | <5         |            | <5         |            | <5         |
| TAME                   | \$*    | < 5    | ug/kg    | < 5        |            | < 5        |            | < 5        |            | < 5        |



|                            |             |        | Lab No   | 2069597    |
|----------------------------|-------------|--------|----------|------------|
|                            |             | .Sa    | ample ID | F-TP104    |
|                            |             |        | Depth    | 0.50       |
|                            |             |        | Other ID |            |
|                            |             | Sam    | ple Type | ES         |
|                            |             | Sampl  | ing Date | 05/10/2022 |
|                            |             | Sampli | ing Time | n/s        |
| Test                       | Method      | LOD    | Units    |            |
| VOCs                       |             |        |          |            |
| Vinyl Chloride             | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,1-dichloroethane         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Cis-1.2-dichloroethylene   | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 2.2-dichloropropane        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Bromochloromethane         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Chloroform                 | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1.1-dichloropropene        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Carbon tetrachloride       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Benzene                    | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1.2-dichloroethane         | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Trichloroethylene          | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1.2-dichloropropane        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Dibromomethane             | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Bromodichloromethane       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Toluene                    | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Tetrachloroethylene        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,3-dichloropropane        | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Dibromochloromethane       | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2-dibromoethane          | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Chlorobenzene              | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Ethylbenzene               | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| m+p-Xylene                 | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| o-Xylene                   | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Styrene                    | DETSC 3431* | 0.01   | mg/kg    | < 0.01     |
| Bromoform                  | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Isopropylbenzene           | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Bromobenzene               | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2,3-trichloropropane     | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| n-propylbenzene            | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 2-chlorotoluene            | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,3,5-trimethylbenzene     | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 4-chlorotoluene            | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| Tert-butylbenzene          | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |
| 1,2,4-trimethylbenzene     | DETSC 3431  | 0.01   | mg/kg    | < 0.01     |



|                             |             |       | Lab No   | 2069597    |
|-----------------------------|-------------|-------|----------|------------|
|                             |             | .Sa   | ample ID | F-TP104    |
|                             |             |       | Depth    | 0.50       |
|                             |             |       | Other ID |            |
|                             |             | Sam   | ple Type | ES         |
|                             |             | Sampl | ing Date | 05/10/2022 |
|                             |             | Sampl | ing Time | n/s        |
| Test                        | Method      | LOD   | Units    |            |
| sec-butylbenzene            | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| p-isopropyltoluene          | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| n-butylbenzene              | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2-dibromo-3-chloropropane | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| Hexachlorobutadiene         | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg    | < 0.01     |
| MTBE                        | DETSC 3431* | 0.01  | mg/kg    | < 0.01     |
| SVOCs                       |             |       |          |            |
| Aniline                     | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2-Chlorophenol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Benzyl Alcohol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 2-Methylphenol              | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Bis(2-chloroisopropyl)ether | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 3&4-Methylphenol            | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 1,2,4-Trichlorobenzene      | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 2-Methylnaphthalene         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2,4,5-Trichlorophenol       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 2-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2,4-Dinitrotoluene          | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 3-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 4-Nitrophenol               | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Dibenzofuran                | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Diethylphthalate            | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 4-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Diphenylamine               | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Hexachlorobenzene           | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Pentachlorophenol           | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Di-n-butylphthalate         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Butylbenzylphthalate        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Bis(2-ethylhexyl)phthalate  | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |



## **Summary of Chemical Analysis** Soil VOC/SVOC Samples

|                           |             |       | Lab No   | 2069597    |
|---------------------------|-------------|-------|----------|------------|
|                           |             | .Sa   | ample ID | F-TP104    |
|                           |             |       | Depth    | 0.50       |
|                           |             |       | Other ID |            |
|                           |             | Sam   | ple Type | ES         |
|                           |             | Sampl | ing Date | 05/10/2022 |
|                           |             | Sampl | ing Time | n/s        |
| Test                      | Method      | LOD   | Units    |            |
| Di-n-octylphthalate       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 1,4-Dinitrobenzene        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Dimethylphthalate         | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| 1,3-Dinitrobenzene        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 1,2-Dinitrobenzene        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| 2,3,5,6-Tetrachlorophenol | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |
| Azobenzene                | DETSC 3433  | 0.1   | mg/kg    | < 0.1      |
| Carbazole                 | DETSC 3433* | 0.1   | mg/kg    | < 0.1      |



|                            |             |       | Lab No    | 2069605    | 2069606    | 2069607    |
|----------------------------|-------------|-------|-----------|------------|------------|------------|
|                            |             | .Sa   | ample ID  | F-TP104    | F-TP104    | F-TP105    |
|                            |             |       | Depth     | 0.50       | 2.40       | 0.50       |
|                            |             |       | Other ID  |            |            |            |
|                            |             | Sam   | ple Type  | ES         | ES         | ES         |
|                            |             | Samp  | ling Date | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                            |             | Sampl | ing Time  | n/s        | n/s        | n/s        |
| Test                       | Method      | LOD   | Units     |            |            |            |
| Preparation                |             |       |           |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |       |           | Y          | Y          | Y          |
| Metals                     |             |       |           |            |            |            |
| Aluminium, Dissolved       | DETSC 2306  | 10    | ug/l      | 62         | 120        | 1300       |
| Arsenic, Dissolved         | DETSC 2306  | 0.16  | ug/l      | 0.52       | 2.0        | 0.50       |
| Beryllium, Dissolved       | DETSC 2306* | 0.1   | ug/l      | < 0.1      | < 0.1      | < 0.1      |
| Boron, Dissolved           | DETSC 2306* | 12    | ug/l      | 30         | 45         | 28         |
| Cadmium, Dissolved         | DETSC 2306  | 0.03  | ug/l      | 0.06       | < 0.03     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306* | 1     | ug/l      | < 1.0      | 1.4        | 1.1        |
| Chromium, Hexavalent       | DETSC 2203  | 0.007 | mg/l      | < 0.007    | < 0.007    | < 0.007    |
| Copper, Dissolved          | DETSC 2306  | 0.4   | ug/l      | 3.0        | 1.6        | 3.5        |
| Iron, Dissolved            | DETSC 2306  | 5.5   | ug/l      | 18         | 22         | 7.9        |
| Lead, Dissolved            | DETSC 2306  | 0.09  | ug/l      | 0.57       | 15         | 24         |
| Manganese, Dissolved       | DETSC 2306  | 0.22  | ug/l      | 12         | 10         | 1.7        |
| Mercury, Dissolved         | DETSC 2306  | 0.01  | ug/l      | 0.03       | < 0.01     | 0.02       |
| Molybdenum, Dissolved      | DETSC 2306  | 1.1   | ug/l      | 2.4        | 3.4        | 1.7        |
| Nickel, Dissolved          | DETSC 2306  | 0.5   | ug/l      | 0.6        | < 0.5      | < 0.5      |
| Phosphorus as P, Dissolved | DETSC 2306  | 18    | ug/l      | < 18       | 26         | < 18       |
| Selenium, Dissolved        | DETSC 2306  | 0.25  | ug/l      | 1.6        | 6.3        | 1.6        |
| Tin, Dissolved             | DETSC 2306* | 0.4   | ug/l      | < 0.4      | < 0.4      | < 0.4      |
| Vanadium, Dissolved        | DETSC 2306  | 0.6   | ug/l      | 4.5        | 2.1        | 5.0        |
| Zinc, Dissolved            | DETSC 2306  | 1.3   | ug/l      | 2.3        | 4.7        | 8.2        |
| Inorganics                 |             |       |           |            |            |            |
| рН                         | DETSC 2008  |       | pН        | 6.3        | 6.9        | 10.4       |
| Cyanide, Total Low Level   | DETSC 2131  | 0.1   | ug/l      | < 0.1      | 0.4        | < 0.1      |
| Cyanide, Free Low Level    | DETSC 2131  | 0.1   | ug/l      | < 0.1      | 0.1        | < 0.1      |
| Thiocyanate                | DETSC 2130  | 20    | ug/l      | < 20       | < 20       | < 20       |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1   | mg/l      | 78.1       | 44.9       | 59.0       |
| Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015 | mg/l      | < 0.02     | < 0.02     | < 0.02     |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015 | mg/l      | < 0.015    | < 0.015    | < 0.015    |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015 | mg/l      | < 0.015    | < 0.015    | < 0.015    |
| Chloride                   | DETSC 2055  | 0.1   | mg/l      | 2.0        | 12         | 9.3        |
| Fluoride                   | DETSC 2055* | 0.1   | mg/l      | 0.34       | 0.21       | < 0.10     |
| Nitrate as NO3             | DETSC 2055  | 0.1   | mg/l      | 0.13       | 0.19       | 0.25       |
| Nitrite as NO2             | DETSC 2055  | 0.1   | mg/l      | < 0.10     | 0.31       | 0.29       |
| Ortho Phosphate as P       | DETSC 2205  | 0.01  | mg/l      | < 0.01     | < 0.01     | < 0.01     |
| Sulphate as SO4            | DETSC 2055  | 0.1   | mg/l      | 120        | 36         | 37         |
| Total Organic Carbon       | DETSC 2085  | 1     | mg/l      | 3.5        | 3.8        | 5.2        |
| Petroleum Hydrocarbons     |             |       |           |            |            |            |
| Aliphatic C5-C6: HS_1D_AL  | DETSC 3322  | 0.1   | ug/l      | < 0.1      | < 0.1      |            |
| Aliphatic C6-C8: HS_1D_AL  | DETSC 3322  | 0.1   | ug/l      | < 0.1      | < 0.1      |            |
| Aliphatic C8-C10: HS_1D_AL | DETSC 3322  | 0.1   | ug/l      | < 0.1      | < 0.1      |            |



|   |             |       | Lab No   | 2069605    | 2069606    | 2069607    |
|---|-------------|-------|----------|------------|------------|------------|
|   |             | .Sa   | ample ID | F-TP104    | F-TP104    | F-TP105    |
|   |             |       | Depth    | 0.50       | 2.40       | 0.50       |
|   |             |       | Other ID |            |            |            |
|   |             | Sam   | ple Type | ES         | ES         | ES         |
|   |             | Samp  | ing Date | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|   |             | Sampl | ing Time | n/s        | n/s        | n/s        |
| Test  | Method      | LOD   | Units    | P          |            |            |
| Aliphatic C10-C12: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Aliphatic C12-C16: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Aliphatic C16-C21: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Aliphatic C21-C35: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Aliphatic C5-C35: EH_CU+HS_1D_AL            | DETSC 3072* | 10    | ug/l     | < 10       | < 10       |            |
| Aromatic C5-C7: HS_1D_AR                    | DETSC 3322  | 0.1   | ug/l     | < 0.1      | < 0.1      |            |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3322  | 0.1   | ug/l     | < 0.1      | < 0.1      |            |
| Aromatic C8-C10: HS_1D_AR                   | DETSC 3322  | 0.1   | ug/l     | < 0.1      | < 0.1      |            |
| Aromatic C10-C12: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     | < 1.0      | 1.4        |            |
| Aromatic C12-C16: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     | 7.4        | 3.2        |            |
| Aromatic C16-C21: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     | 13         | 3.0        |            |
| Aromatic C21-C35: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     | 5.8        | 5.2        |            |
| Aromatic C5-C35: EH_CU+HS_1D_AR             | DETSC 3072* | 10    | ug/l     | 27         | 13         |            |
|   |             |       |          |            |            |            |
| TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total | DETSC 3072* | 10    | ug/l     | 27         | 13         |            |
| Benzene                                     | DETSC 3322  | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Toluene                                     | DETSC 3322  | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Ethylbenzene                                | DETSC 3322  | 1     | ug/l     | < 1.0      | < 1.0      |            |
| Xylene                                      | DETSC 3322  | 1     | ug/l     | < 1.0      | < 1.0      |            |
| PAHs  |             |       |          |            |            |            |
| Acenaphthene                                | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | 0.01       |
| Acenaphthylene                              | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Anthracene                                  | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(a)anthracene                          | DETSC 3304* | 0.01  | ug/l     | < 0.01     | 0.01       | 0.01       |
| Benzo(a)pyrene                              | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(b)fluoranthene                        | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | 0.01       |
| Benzo(g,h,i)perylene                        | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Benzo(k)fluoranthene                        | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Chrysene                                    | DETSC 3304  | 0.01  | ug/l     | < 0.01     | 0.01       | 0.01       |
| Dibenzo(a,h)anthracene                      | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Fluoranthene                                | DETSC 3304  | 0.01  | ug/l     | < 0.01     | 0.02       | 0.02       |
| Fluorene                                    | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Indeno(1,2,3-c,d)pyrene                     | DETSC 3304  | 0.01  | ug/l     | < 0.01     | < 0.01     | < 0.01     |
| Naphthalene                                 | DETSC 3304  | 0.05  | ug/l     | 0.10       | 0.14       | 0.15       |
| Phenanthrene                                | DETSC 3304  | 0.01  | ug/l     | < 0.01     | 0.01       | 0.02       |
| Pyrene                                      | DETSC 3304  | 0.01  | ug/l     | < 0.01     | 0.02       | 0.02       |
| PAH Total                                   | DETSC 3304  | 0.2   | ug/l     | < 0.20     | 0.21       | 0.25       |
| PCBs  |             |       |          |            |            |            |
| PCB 28 + PCB 31                             | DETSC 3402  | 0.3   | ug/l     | < 0.3      | < 0.3      |            |
| PCB 52                                      | DETSC 3402  | 0.2   | ug/l     | < 0.2      | < 0.2      |            |
| PCB 77                                      | DETSC 3402  | 0.3   | ug/l     | < 0.3      | < 0.3      |            |
| PCB 81                                      | DETSC 3402  | 0.2   | ug/l     | < 0.2      | < 0.2      |            |



|                         |                   |       | Lab No    | 2069605    | 2069606    | 2069607    |
|-------------------------|-------------------|-------|-----------|------------|------------|------------|
|                         |                   | .S    | ample ID  | F-TP104    | F-TP104    | F-TP105    |
|                         |                   |       | Depth     | 0.50       | 2.40       | 0.50       |
|                         |                   |       | Other ID  |            |            |            |
|                         |                   | Sam   | ple Type  | ES         | ES         | ES         |
|                         |                   | Samp  | ling Date | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                         |                   | Sampl | ing Time  | n/s        | n/s        | n/s        |
| Test                    | Method            | LOD   | Units     |            |            |            |
| PCB 101                 | DETSC 3402        | 0.3   | ug/l      | < 0.3      | < 0.3      |            |
| PCB 105                 | DETSC 3402        | 0.2   | ug/l      | < 0.2      | < 0.2      |            |
| PCB 114                 | DETSC 3402        | 0.3   | ug/l      | < 0.3      | < 0.3      |            |
| PCB 118 + PCB 123       | DETSC 3402        | 0.6   | ug/l      | < 0.6      | < 0.6      |            |
| PCB 126                 | DETSC 3402        | 0.5   | ug/l      | < 0.5      | < 0.5      |            |
| PCB 138                 | DETSC 3402        | 0.2   | ug/l      | < 0.2      | < 0.2      |            |
| PCB 153                 | DETSC 3402        | 0.2   | ug/l      | < 0.2      | < 0.2      |            |
| PCB 156                 | DETSC 3402        | 0.3   | ug/l      | < 0.3      | < 0.3      |            |
| PCB 157                 | DETSC 3402        | 0.2   | ug/l      | < 0.2      | < 0.2      |            |
| PCB 167                 | DETSC 3402        | 0.3   | ug/l      | < 0.3      | < 0.3      |            |
| PCB 169                 | DETSC 3402        | 0.2   | ug/l      | < 0.2      | < 0.2      |            |
| PCB 180                 | DETSC 3402        | 0.2   | ug/l      | < 0.2      | < 0.2      |            |
| PCB 189                 | DETSC 3402        | 0.3   | ug/l      | < 0.3      | < 0.3      |            |
| PCB 12                  | DETSC 3402        | 1     | ug/l      | < 1.0      | < 1.0      |            |
| PCB 7 Total             | DETSC 3402        | 1     | ug/l      | < 1.0      | < 1.0      |            |
| Phenols                 |                   |       |           |            |            |            |
| Phenol                  | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| 4-Chloro-3-methylphenol | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| 2,4-Dichlorophenol      | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| 2,4-Dimethylphenol      | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| p-cresol                | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| 2,6-Dimethylphenol      | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| 2,6-Dichlorophenol      | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451*       | 0.1   | ug/l      | < 0.10     | < 0.10     |            |
| Acid Herbicides         |                   |       |           |            |            |            |
| Mecoprop                | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| 2,4-D                   | DETSC 3448*       | 0.02  | ug/l      |            |            | < 0.02     |
| Bentazone               | <b>DETSC 3448</b> | 0.02  | ug/l      |            |            | < 0.02     |
| Picloram                | DETSC 3448*       | 0.02  | ug/l      |            |            | < 0.02     |
| МСРА                    | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| Clopyralid              | <b>DETSC 3448</b> | 0.02  | ug/l      |            |            | < 0.02     |
| Dicamba                 | <b>DETSC 3448</b> | 0.02  | ug/l      |            |            | < 0.02     |
| 2,3,6-ТВА               | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| Dichlorprop             | <b>DETSC 3448</b> | 0.02  | ug/l      |            |            | < 0.02     |
| Bromoxynil              | <b>DETSC 3448</b> | 0.02  | ug/l      |            |            | < 0.02     |
| Trichlopyr              | DETSC 3448*       | 0.02  | ug/l      |            |            | < 0.02     |
| Fenoprop                | <b>DETSC 3448</b> | 0.02  | ug/l      |            |            | < 0.02     |
| МСРВ                    | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| 2,4,5-T                 | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| Fluroxypyr              | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| 2,4-DB                  | DETSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |
| loxvnil                 | DFTSC 3448        | 0.02  | ug/l      |            |            | < 0.02     |



|                      |             |       | Lab No   | 2069605    | 2069606    | 2069607    |
|----------------------|-------------|-------|----------|------------|------------|------------|
|                      |             | .Sa   | ample ID | F-TP104    | F-TP104    | F-TP105    |
|                      |             |       | Depth    | 0.50       | 2.40       | 0.50       |
|                      |             |       | Other ID |            |            |            |
|                      |             | Sam   | ple Type | ES         | ES         | ES         |
|                      |             | Samp  | ing Date | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                      |             | Sampl | ing Time | n/s        | n/s        | n/s        |
| Test                 | Method      | LOD   | Units    |            | , -        | 7-         |
| Benazolin            | DETSC 3448* | 0.02  | ug/l     |            |            | < 0.02     |
| Pentachlorophenol    | DETSC 3448* | 0.02  | ug/l     |            |            | < 0.02     |
| OCPs                 | 1           |       | 0,       |            |            |            |
| alpha-BHC            | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| gamma-BHC (Lindane)  | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| beta-BHC             | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| delta-BHC            | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Heptachlor           | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Aldrin               | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Heptachlor epoxide   | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| gamma-Chlordane      | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Endosulphan I        | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| 4.4-DDE              | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Dieldrin             | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Endrin               | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Endosulphan II       | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Endrin aldehvde      | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| 4.4-DDT              | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Endosulphan sulphate | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Methoxychlor         | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Endrin ketone        | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| OPPs                 |             |       | ,0 -     |            |            |            |
| Dichlorvos           | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Mevinphos            | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Demeton-O            | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Ethoprop             | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Naled                | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Phorate              | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Demeton-S            | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Diazinon             | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Disulfoton           | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Methylparathion      | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Ronnel               | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Fenthion             | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Chlopyrifos          | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Trichlorinate        | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Merphos              | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Stirofos             | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Tokuthion            | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Fensulfothion        | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Bolstar              | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |
| Azinphos methyl      | DETSC 3434* | 1     | ug/l     |            |            | < 3.0      |



|                        |               |          | Lab No   | 2069605    | 2069606    | 2069607    |
|------------------------|---------------|----------|----------|------------|------------|------------|
|                        |               | .Sa      | ample ID | F-TP104    | F-TP104    | F-TP105    |
|                        |               |          | Depth    | 0.50       | 2.40       | 0.50       |
|                        |               |          | Other ID |            |            |            |
|                        |               | ple Type | ES       | ES         | ES         |            |
|                        | Sampling Date |          |          | 05/10/2022 | 05/10/2022 | 05/10/2022 |
|                        |               | Sampl    | ing Time | n/s        | n/s        | n/s        |
| Test                   | Method        | LOD      | Units    |            |            |            |
| Coumaphos              | DETSC 3434*   | 1        | ug/l     |            |            | < 3.0      |
| Subcontracted Analysis |               |          |          |            |            |            |
| Hexavalent Chromium    | \$*           | <2       | ug/kg    | <2         | <2         |            |

## *I* DETS

## Summary of Asbestos Analysis Soil Samples

Our Ref 22-20306 Client Ref 60678042 Contract Title NZT Feed GI

| Lab No  | Sample ID    | Material Type | Result | Comment* | Analyst        |
|---------|--------------|---------------|--------|----------|----------------|
| 2069596 | F-TP104      | SOIL          | NAD    | none     | Steven Lambert |
| 2069597 | F-TP104 0.50 | SOIL          | NAD    | none     | Steven Lambert |
| 2069598 | F-TP104 1.50 | SOIL          | NAD    | none     | Steven Lambert |
| 2069601 | F-TP105      | SOIL          | NAD    | none     | Steven Lambert |
| 2069602 | F-TP105 0.50 | SOIL          | NAD    | none     | Steven Lambert |
| 2069603 | F-TP105 1.80 | SOIL          | NAD    | none     | Steven Lambert |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* not included in laboratory scope of accreditation.



Inappropriate

#### Information in Support of the Analytical Results

*Our Ref* 22-20306 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|         |                       | Date     |                            |                                 | container for |
|---------|-----------------------|----------|----------------------------|---------------------------------|---------------|
| Lab No  | Sample ID             | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests | tests         |
| 2069596 | F-TP104 SOIL          | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2069597 | F-TP104 0.50 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069598 | F-TP104 1.50 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069599 | F-TP104 2.40 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069600 | F-TP104 3.40 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069601 | F-TP105 SOIL          | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2069602 | F-TP105 0.50 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069603 | F-TP105 1.80 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069604 | F-TP105 2.80 SOIL     | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   | Ammonia (3 days)                |               |
| 2069605 | F-TP104 0.50 LEACHATE | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2069606 | F-TP104 2.40 LEACHATE | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |
| 2069607 | F-TP105 0.50 LEACHATE | 05/10/22 | GJ 250ml, GJ 60ml, PT 1L   |                                 |               |

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425μm sieve, in accordance with BS1377. Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



#### Information in Support of the Analytical Results

#### List of HWOL Acronyms and Operators

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |

#### Det

| Det                      |
|--------------------------|
| Aliphatic C5-C6          |
| Aliphatic C6-C8          |
| Aliphatic C8-C10         |
| Aliphatic C10-C12        |
| Aliphatic C12-C16        |
| Aliphatic C16-C21        |
| Aliphatic C21-C35        |
| Aliphatic C35-C40        |
| Aliphatic C5-C40         |
| Aromatic C5-C7           |
| Aromatic C7-C8           |
| Aromatic C8-C10          |
| Aromatic C10-C12         |
| Aromatic C12-C16         |
| Aromatic C16-C21         |
| Aromatic C21-C35         |
| Aromatic C35-C40         |
| Aromatic C5-C40          |
| TPH Ali/Aro C5-C40       |
| Aliphatic C5-C35         |
| Aromatic C5-C35          |
| TPH Ali/Aro Total C5-C35 |

Acronym HS\_1D\_AL HS\_1D\_AL HS\_1D\_AL EH\_CU\_1D\_AL EH\_CU\_1D\_AL EH\_CU\_1D\_AL EH\_CU\_1D\_AL EH\_CU\_1D\_AL EH\_CU+HS\_1D\_AL HS\_1D\_AR HS\_1D\_AR HS\_1D\_AR EH\_CU\_1D\_AR EH\_CU\_1D\_AR EH\_CU\_1D\_AR EH\_CU\_1D\_AR EH\_CU\_1D\_AR EH\_CU+HS\_1D\_AR EH\_CU+HS\_1D\_Total EH\_CU+HS\_1D\_AL EH\_CU+HS\_1D\_AR EH\_CU+HS\_1D\_Total

End of Report



Issued:

21-Oct-22

Certificate Number 22-20457

Client Aecom Leeds 5th Floor 2 City Walk Leeds LS11 9AR

- Our Reference 22-20457
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
    - Description 11 Soil samples, 4 Leachate samples.
  - Date Received 12-Oct-22
- Date Started 12-Oct-22
- Date Completed 21-Oct-22
- Test Procedures Identified by prefix DETSn (details on request).
  - *Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

legenood

Kirk Bridgewood General Manager



Derwentside Environmental Testing Services Limited Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY Tel: 01207 582333 • email: info@dets.co.uk • www.dets.co.uk

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|                                 |             |        | Lab No   | 2070379    | 2070380    | 2070382    | 2070383    | 2070384    | 2070385    |
|---------------------------------|-------------|--------|----------|------------|------------|------------|------------|------------|------------|
|                                 |             | .Sa    | ample ID | F-TP106A   | F-TP106A   | F-TP106A   | F-TP106A   | F-TP116    | F-TP116    |
|                                 |             |        | Depth    | 0.00       | 0.50       | 2.00       | 2.50       | 0.20       | 0.80       |
|                                 |             | (      | Other ID |            |            |            |            |            |            |
|                                 |             | Sam    | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                                 |             | Sampl  | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 06/10/2022 | 06/10/2022 |
|                                 |             | Sampli | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                            | Method      | LOD    | Units    | <b></b>    |            |            |            |            |            |
| Asbestos Quantification         | DETSC 1102  | 0.001  | %        | 0.004      |            |            |            |            |            |
| Preparation                     |             | l l    |          |            |            |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1    | %        | 6.4        | 7.9        | 15         | 18         | 4.3        | 7.3        |
| Metals                          |             |        |          |            |            |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1      | mg/kg    | 15000      | 30000      | 1700       | 31000      | 22000      |            |
| Arsenic                         | DETSC 2301# | 0.2    | mg/kg    | 2.5        | 3.1        | 5.2        | 6.5        | 6.0        | 9.1        |
| Beryllium                       | DETSC 2301# | 0.2    | mg/kg    | 1.6        | 2.8        | < 0.2      | 4.0        | 2.3        | 2.3        |
| Boron, Water Soluble            | DETSC 2311# | 0.2    | mg/kg    | 2.6        | 3.0        | 1.0        | 2.4        | 5.3        | 13         |
| Cadmium                         | DETSC 2301# | 0.1    | mg/kg    | 0.2        | < 0.1      | < 0.1      | 0.1        | 0.1        | 1.3        |
| Chromium III                    | DETSC 2301* | 0.15   | mg/kg    | 51         | 8.5        | 2.8        | 7.5        | 120        | 90         |
| Chromium, Hexavalent            | DETSC 2204* | 1      | mg/kg    | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2    | mg/kg    | 11         | 4.6        | 3.2        | 7.7        | 11         | 16         |
| Iron                            | DETSC 2301  | 25     | mg/kg    | 44000      | 6900       | 5100       | 6300       | 11000      |            |
| Lead                            | DETSC 2301# | 0.3    | mg/kg    | 11         | 1.6        | 19         | 12         | 64         | 23         |
| Manganese                       | DETSC 2301# | 20     | mg/kg    | 2500       | 2000       | 150        | 930        | 10000      |            |
| Mercury                         | DETSC 2325# | 0.05   | mg/kg    | < 0.05     | < 0.05     | < 0.05     | 0.09       | < 0.05     | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4    | mg/kg    | 1.6        | 0.5        | 1.3        | 0.9        | 0.9        |            |
| Nickel                          | DETSC 2301# | 1      | mg/kg    | 6.3        | 1.4        | 2.7        | 3.6        | 3.1        | 5.9        |
| Phosphorus                      | DETSC 2301* | 1      | mg/kg    | 330        | 62         | 120        | 100        | 2700       |            |
| Selenium                        | DETSC 2301# | 0.5    | mg/kg    | 1.4        | 1.9        | < 0.5      | 1.6        | 4.4        | 4.7        |
| Tin                             | DETSC 2301  | 1      | mg/kg    | 1.3        | < 1.0      | < 1.0      | < 1.0      | 1.2        |            |
| Vanadium                        | DETSC 2301# | 0.8    | mg/kg    | 65         | 29         | 8.7        | 29         | 320        | 240        |
| Zinc                            | DETSC 2301# | 1      | mg/kg    | 49         | 13         | 19         | 33         | 24         | 72         |
| Inorganics                      |             |        |          |            |            |            |            |            |            |
| рН                              | DETSC 2008# |        | pН       | 9.9        | 9.4        | 9.1        | 10.0       | 11.6       | 10.9       |
| Cyanide, Total                  | DETSC 2130# | 0.1    | mg/kg    | 0.3        | 0.2        | 0.2        | 0.2        | 0.3        | 0.3        |
| Cyanide, Free                   | DETSC 2130# | 0.1    | mg/kg    | < 0.1      | < 0.1      | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6    | mg/kg    | < 0.6      | < 0.6      | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1    | %        | 0.5        | 1.0        | < 0.1      | 1.4        | 1.6        | 0.8        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5    | mg/kg    | 1.3        | 1.2        | 1.4        | 1.7        | 0.78       |            |
| Chloride                        | DETSC 2055  | 1      | mg/kg    | 52.4       | 13.8       | 66.9       | 52.3       | 66.0       |            |
| Fluoride                        | DETSC 2055  | 1      | mg/kg    | 9.5        | 7.2        | 5.4        | 15         | 3.4        |            |
| Nitrate as NO3                  | DETSC 2055  | 1      | mg/kg    | 7.1        | 5.3        | 1.6        | 2.2        | 3.8        | 10         |
| Ortho Phosphate as P            | DETSC 2205* | 0.1    | mg/kg    | 0.26       | 0.34       | 0.85       | 0.17       | 0.39       |            |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10     | mg/l     | 630        | 1100       | 160        | 410        | 1400       | 960        |
| Sulphide                        | DFTSC 2024* | 10     | mg/kg    | 840        | 2200       | 160        | 2700       | 2000       | 1700       |
| Sulphur (free)                  | DETSC 3049# | 0.75   | mg/kg    | 2.3        | 10         | 2.0        | < 0.75     | 20         | 12         |
| Sulphur as S. Total             | DETSC 2320  | 0.01   | %        | 0.15       | 0.24       | 0.03       | 0.25       | 0.32       | 0.28       |
| Sulphate as SO4. Total          | DFTSC 2321# | 0.01   | %        | 0.13       | 11         | 0 11       | 0.23       | 17         | 2.1        |
| Petroleum Hydrocarbons          |             | 0.02   | 70       | 0.00       |            | 0.11       | 0.74       | ±.,        |            |



|                                       |             |       | Lab No   | 2070379    | 2070380    | 2070382    | 2070383    | 2070384    | 2070385    |
|---------------------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|------------|
|                                       |             | .Sa   | ample ID | F-TP106A   | F-TP106A   | F-TP106A   | F-TP106A   | F-TP116    | F-TP116    |
|                                       |             |       | Depth    | 0.00       | 0.50       | 2.00       | 2.50       | 0.20       | 0.80       |
|                                       |             |       | Other ID |            |            |            |            |            |            |
|                                       |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                                       |             | Sampl | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 06/10/2022 | 06/10/2022 |
|                                       |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD   | Units    |            |            |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | 0.20       | 0.28       | 0.33       | 0.30       | 0.26       | 0.29       |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5   | mg/kg    | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2   | mg/kg    | < 1.2      | < 1.2      | < 1.2      | < 1.2      | < 1.2      | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5   | mg/kg    | < 1.5      | < 1.5      | < 1.5      | < 1.5      | 4.2        | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4   | mg/kg    | 21         | < 3.4      | < 3.4      | < 3.4      | 110        | 14         |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4   | mg/kg    | < 3.4      | < 3.4      | < 3.4      | < 3.4      | 18         | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10    | mg/kg    | 25         | < 10       | < 10       | < 10       | 140        | 16         |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9   | mg/kg    | < 0.9      | < 0.9      | < 0.9      | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5   | mg/kg    | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6   | mg/kg    | 2.4        | < 0.6      | < 0.6      | < 0.6      | 16         | 4.1        |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4   | mg/kg    | 29         | < 1.4      | < 1.4      | < 1.4      | 65         | 4.4        |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4   | mg/kg    | 5.7        | < 1.4      | < 1.4      | < 1.4      | 2.2        | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10    | mg/kg    | 37         | < 10       | < 10       | < 10       | 84         | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10    | mg/kg    | 62         | < 10       | < 10       | < 10       | 220        | 24         |
| PAHs                                  |             |       |          |            |            |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.05       | 0.05       |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | 0.03       | < 0.03     | < 0.03     | 0.10       | 0.25       |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | 0.11       | < 0.03     | < 0.03     | < 0.03     | 0.91       | 0.83       |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | 0.06       | < 0.03     | < 0.03     | < 0.03     | 0.68       | 0.48       |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | 0.15       | < 0.03     | < 0.03     | < 0.03     | 0.94       | 0.83       |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | 0.05       | < 0.03     | < 0.03     | < 0.03     | 0.29       | 0.29       |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | 0.06       | < 0.03     | < 0.03     | < 0.03     | 0.39       | 0.36       |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | 0.15       | < 0.03     | < 0.03     | < 0.03     | 0.82       | 0.75       |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.07       | 0.05       |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | 0.24       | < 0.03     | < 0.03     | < 0.03     | 2.2        | 1.9        |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.03       |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | 0.05       | < 0.03     | < 0.03     | < 0.03     | 0.27       | 0.25       |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | 0.14       | < 0.03     | < 0.03     | < 0.03     | 1.1        | 0.61       |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | 0.16       | < 0.03     | < 0.03     | < 0.03     | 1.5        | 1.6        |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | 1.2        | < 0.10     | < 0.10     | < 0.10     | 9.4        | 8.3        |
| PCBs                                  |             |       |          |            |            |            |            |            |            |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 52                                | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |



|                         |             |       | Lab No   | 2070379    | 2070380    | 2070382    | 2070383    | 2070384    | 2070385    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP106A   | F-TP106A   | F-TP106A   | F-TP106A   | F-TP116    | F-TP116    |
|                         |             |       | Depth    | 0.00       | 0.50       | 2.00       | 2.50       | 0.20       | 0.80       |
|                         |             |       | Other ID |            |            |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 06/10/2022 | 06/10/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |            |            |
| PCB 101                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 118                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 153                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 138                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 180                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| РСВ 77                  | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 81                  | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 105                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 114                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 118                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 123                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 126                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 156                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 157                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 167                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 169                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 189                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| PCB 7 Total             | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| Phenols                 |             |       |          |            |            |            |            |            |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     | < 0.01     |            | < 0.01     |
| Subcontracted Analysis  |             |       |          |            |            |            |            |            |            |
| Benzene                 | \$*         | <2    | ug/kg    |            | <2         | <2         | <2         |            | <2         |
| Toluene                 | \$*         | <5    | ug/kg    |            | <5         | <5         | <5         |            | <5         |
| Ethylbenzene            | \$*         | <2    | ug/kg    |            | <2         | <2         | <2         |            | <2         |
| p & m-xylene            | \$*         | <2    | ug/kg    |            | <2         | <2         | <2         |            | <2         |
| o-xylene                | \$*         | <2    | ug/kg    |            | <2         | <2         | <2         |            | <2         |
| МТВЕ                    | \$*         | <5    | ug/kg    |            | <5         | <5         | <5         |            | <5         |
| ТАМЕ                    | \$*         | < 5   | ug/kg    |            | < 5        | < 5        | < 5        |            | < 5        |



|                                 |             |       | Lab No    | 2070386    | 2070387    | 2070388    | 2070389    |
|---------------------------------|-------------|-------|-----------|------------|------------|------------|------------|
|                                 |             | .Sa   | ample ID  | F-TP116    | F-TP116    | F-TP116    | F-TP116    |
|                                 |             |       | Depth     | 1.50       | 3.10       | 4.10       | 4.50       |
|                                 |             |       | Other ID  |            |            |            |            |
|                                 |             | Sam   | ple Type  | ES         | ES         | ES         | ES         |
|                                 |             | Sampl | ling Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 |
|                                 |             | Sampl | ing Time  | n/s        | n/s        | n/s        | n/s        |
| Test                            | Method      | LOD   | Units     |            |            |            |            |
| Asbestos Quantification         | DETSC 1102  | 0.001 | %         |            |            |            |            |
| Preparation                     |             |       |           |            |            |            |            |
| Moisture Content                | DETSC 1004  | 0.1   | %         | 6.3        | 7.4        | 10         | 10         |
| Metals                          |             |       |           |            |            |            |            |
| Aluminium                       | DETSC 2301* | 1     | mg/kg     | 23000      | 19000      | 16000      |            |
| Arsenic                         | DETSC 2301# | 0.2   | mg/kg     | 21         | 15         | 20         | 18         |
| Beryllium                       | DETSC 2301# | 0.2   | mg/kg     | 2.4        | 1.6        | 1.6        | 1.1        |
| Boron, Water Soluble            | DETSC 2311# | 0.2   | mg/kg     | 11         | 3.0        | 2.9        | 3.1        |
| Cadmium                         | DETSC 2301# | 0.1   | mg/kg     | 0.2        | 0.6        | 0.5        | 1.0        |
| Chromium III                    | DETSC 2301* | 0.15  | mg/kg     | 93         | 120        | 90         | 51         |
| Chromium, Hexavalent            | DETSC 2204* | 1     | mg/kg     | < 1.0      | < 1.0      | < 1.0      | < 1.0      |
| Copper                          | DETSC 2301# | 0.2   | mg/kg     | 33         | 46         | 33         | 29         |
| Iron                            | DETSC 2301  | 25    | mg/kg     | 35000      | 51000      | 45000      |            |
| Lead                            | DETSC 2301# | 0.3   | mg/kg     | 22         | 95         | 74         | 82         |
| Manganese                       | DETSC 2301# | 20    | mg/kg     | 37000      | 3900       | 4300       |            |
| Mercury                         | DETSC 2325# | 0.05  | mg/kg     | < 0.05     | < 0.05     | < 0.05     | < 0.05     |
| Molybdenum                      | DETSC 2301# | 0.4   | mg/kg     | 4.2        | 4.9        | 1.5        |            |
| Nickel                          | DETSC 2301# | 1     | mg/kg     | 19         | 16         | 17         | 19         |
| Phosphorus                      | DETSC 2301* | 1     | mg/kg     | 1600       | 5000       | 3500       |            |
| Selenium                        | DETSC 2301# | 0.5   | mg/kg     | 14         | 2.1        | 1.9        | 1.3        |
| Tin                             | DETSC 2301  | 1     | mg/kg     | 2.4        | 3.4        | 3.3        |            |
| Vanadium                        | DETSC 2301# | 0.8   | mg/kg     | 240        | 430        | 330        | 220        |
| Zinc                            | DETSC 2301# | 1     | mg/kg     | 31         | 170        | 340        | 1100       |
| Inorganics                      |             |       |           |            |            |            | 1          |
| рН                              | DETSC 2008# |       | рН        | 11.5       | 11.2       | 11.5       | 10.8       |
| Cyanide, Total                  | DETSC 2130# | 0.1   | mg/kg     | 0.2        | 0.3        | 1.1        | 0.3        |
| Cyanide, Free                   | DETSC 2130# | 0.1   | mg/kg     | < 0.1      | 0.2        | < 0.1      | < 0.1      |
| Thiocyanate                     | DETSC 2130# | 0.6   | mg/kg     | < 0.6      | < 0.6      | < 0.6      | < 0.6      |
| Organic matter                  | DETSC 2002# | 0.1   | %         | 1.0        | 2.9        | 2.5        | 3.4        |
| Ammoniacal Nitrogen as N        | DETSC 2119# | 0.5   | mg/kg     | 1.0        | 1.0        | 0.99       |            |
| Chloride                        | DETSC 2055  | 1     | mg/kg     | 281        | 161        | 165        |            |
| Fluoride                        | DETSC 2055  | 1     | mg/kg     | 9.2        | 33         | 45         |            |
| Nitrate as NO3                  | DETSC 2055  | 1     | mg/kg     | 4.1        | 15         | 16         | 14         |
| Ortho Phosphate as P            | DETSC 2205* | 0.1   | mg/kg     | 0.69       | 0.74       | 0.24       |            |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l      | 1600       | 670        | 520        | 480        |
| Sulphide                        | DETSC 2024* | 10    | mg/kg     | 1700       | 1300       | 1400       | 780        |
| Sulphur (free)                  | DETSC 3049# | 0.75  | mg/kg     | 13         | 13         | 5.2        | 6.7        |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | <u> </u>  | 0.51       | 0.26       | 0.22       | 0.14       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %         | 2.0        | 0.64       | 0.70       | 0.41       |
| Petroleum Hydrocarbons          |             |       | ,,,       |            |            |            |            |
|                                 |             |       |           | -          |            |            |            |



|                                       |             |       | Lab No   | 2070386    | 2070387    | 2070388    | 2070389    |
|---------------------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                                       |             | .Sa   | ample ID | F-TP116    | F-TP116    | F-TP116    | F-TP116    |
|                                       |             |       | Depth    | 1.50       | 3.10       | 4.10       | 4.50       |
|                                       |             |       | Other ID |            |            |            |            |
|                                       |             | Sam   | ple Type | ES         | ES         | ES         | ES         |
|                                       |             | Samp  | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 |
|                                       |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                                  | Method      | LOD   | Units    |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | 0.27       | 0.20       | < 0.01     | < 0.01     |
| Aliphatic C6-C8: HS_1D_AL             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C8-C10: HS_1D_AL            | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aliphatic C10-C12: EH_CU_1D_AL        | DETSC 3072# | 1.5   | mg/kg    | < 1.5      | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C12-C16: EH_CU_1D_AL        | DETSC 3072# | 1.2   | mg/kg    | < 1.2      | < 1.2      | < 1.2      | < 1.2      |
| Aliphatic C16-C21: EH_CU_1D_AL        | DETSC 3072# | 1.5   | mg/kg    | 1.9        | < 1.5      | < 1.5      | < 1.5      |
| Aliphatic C21-C35: EH_CU_1D_AL        | DETSC 3072# | 3.4   | mg/kg    | 38         | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C35-C40: EH_CU_1D_AL        | DETSC 3072* | 3.4   | mg/kg    | 4.5        | < 3.4      | < 3.4      | < 3.4      |
| Aliphatic C5-C40: EH_CU+HS_1D_AL      | DETSC 3072* | 10    | mg/kg    | 45         | < 10       | < 10       | < 10       |
| Aromatic C5-C7: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C7-C8: HS_1D_AR              | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C8-C10: HS_1D_AR             | DETSC 3321* | 0.01  | mg/kg    | < 0.01     | < 0.01     | < 0.01     | < 0.01     |
| Aromatic C10-C12: EH_CU_1D_AR         | DETSC 3072# | 0.9   | mg/kg    | < 0.9      | < 0.9      | < 0.9      | < 0.9      |
| Aromatic C12-C16: EH_CU_1D_AR         | DETSC 3072# | 0.5   | mg/kg    | < 0.5      | < 0.5      | < 0.5      | < 0.5      |
| Aromatic C16-C21: EH_CU_1D_AR         | DETSC 3072# | 0.6   | mg/kg    | 3.7        | 1.4        | < 0.6      | 2.7        |
| Aromatic C21-C35: EH_CU_1D_AR         | DETSC 3072# | 1.4   | mg/kg    | 22         | 1.5        | < 1.4      | 1.9        |
| Aromatic C35-C40: EH_CU_1D_AR         | DETSC 3072* | 1.4   | mg/kg    | < 1.4      | < 1.4      | < 1.4      | < 1.4      |
| Aromatic C5-C40: EH_CU+HS_1D_AR       | DETSC 3072* | 10    | mg/kg    | 26         | < 10       | < 10       | < 10       |
| TPH Ali/Aro C5-C40: EH_CU+HS_1D_Total | DETSC 3072* | 10    | mg/kg    | 71         | < 10       | < 10       | < 10       |
| PAHs                                  | l.          |       |          |            |            |            |            |
| Acenaphthene                          | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | 0.20       |
| Acenaphthylene                        | DETSC 3303# | 0.03  | mg/kg    | 0.03       | < 0.03     | < 0.03     | < 0.03     |
| Anthracene                            | DETSC 3303  | 0.03  | mg/kg    | 0.07       | 0.10       | 0.12       | 0.27       |
| Benzo(a)anthracene                    | DETSC 3303# | 0.03  | mg/kg    | 0.32       | 0.27       | 0.30       | 0.83       |
| Benzo(a)pyrene                        | DETSC 3303# | 0.03  | mg/kg    | 0.22       | 0.24       | 0.16       | 0.36       |
| Benzo(b)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | 0.43       | 0.33       | 0.27       | 0.57       |
| Benzo(g,h,i)perylene                  | DETSC 3303# | 0.03  | mg/kg    | 0.13       | 0.11       | 0.09       | 0.15       |
| Benzo(k)fluoranthene                  | DETSC 3303# | 0.03  | mg/kg    | 0.18       | 0.12       | 0.11       | 0.25       |
| Chrysene                              | DETSC 3303  | 0.03  | mg/kg    | 0.33       | 0.26       | 0.32       | 0.78       |
| Dibenzo(a,h)anthracene                | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | 0.04       |
| Fluoranthene                          | DETSC 3303# | 0.03  | mg/kg    | 0.62       | 0.65       | 0.86       | 2.4        |
| Fluorene                              | DETSC 3303  | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | 0.11       |
| Indeno(1,2,3-c,d)pyrene               | DETSC 3303# | 0.03  | mg/kg    | 0.14       | 0.10       | 0.06       | 0.12       |
| Naphthalene                           | DETSC 3303# | 0.03  | mg/kg    | < 0.03     | < 0.03     | < 0.03     | 0.05       |
| Phenanthrene                          | DETSC 3303# | 0.03  | mg/kg    | 0.25       | 0.37       | 0.33       | 2.2        |
| Pyrene                                | DETSC 3303# | 0.03  | mg/kg    | 0.50       | 0.48       | 0.62       | 1.8        |
| PAH - USEPA 16, Total                 | DETSC 3303  | 0.1   | mg/kg    | 3.2        | 3.0        | 3.2        | 10         |
| PCBs                                  |             |       |          |            | 1          | 1          | 1          |
| PCB 28 + PCB 31                       | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 52                                | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |



|                         |             |       | Lab No   | 2070386    | 2070387    | 2070388    | 2070389    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                         |             | .Sa   | ample ID | F-TP116    | F-TP116    | F-TP116    | F-TP116    |
|                         |             |       | Depth    | 1.50       | 3.10       | 4.10       | 4.50       |
|                         |             |       | Other ID |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         |
|                         |             | Sampl | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |
| PCB 101                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 118                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 153                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 138                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     | -          |
| PCB 180                 | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 77                  | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 81                  | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 105                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 114                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 118                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 123                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 126                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 156                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 157                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 167                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 169                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 189                 | DETSC 3401* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| PCB 7 Total             | DETSC 3401# | 0.01  | mg/kg    |            |            | < 0.01     |            |
| Phenols                 |             |       |          |            |            | I          |            |
| Phenol - Monohydric     | DETSC 2130# | 0.3   | mg/kg    | < 0.3      | < 0.3      | < 0.3      | < 0.3      |
| Phenol                  | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| p-cresol                | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.01  | mg/kg    |            |            | < 0.01     |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |
| Benzene                 | \$*         | <2    | ug/kg    |            | <2         | <2         |            |
| Toluene                 | \$*         | <5    | ug/kg    |            | <5         | <5         |            |
| Ethylbenzene            | \$*         | <2    | ug/kg    |            | <2         | <2         |            |
| p & m-xylene            | \$*         | <2    | ug/kg    |            | <2         | <2         |            |
| o-xylene                | \$*         | <2    | ug/kg    |            | <2         | <2         |            |
| МТВЕ                    | \$*         | <5    | ug/kg    |            | <5         | <5         |            |
| ТАМЕ                    | \$*         | < 5   | ug/kg    |            | < 5        | < 5        |            |



|                            |             |        | Lab No                         | 2070382    | 2070383    |
|----------------------------|-------------|--------|--------------------------------|------------|------------|
|                            |             | .Sa    | ample ID                       | F-TP106A   | F-TP106A   |
|                            |             |        | Depth                          | 2.00       | 2.50       |
|                            |             |        | Other ID                       |            |            |
|                            |             | Sam    | ple Type                       | ES         | ES         |
|                            |             | Sampl  | ing Date                       | 07/10/2022 | 07/10/2022 |
|                            |             | Sampli | ing Time                       | n/s        | n/s        |
| Test                       | Method      | LOD    | Units                          |            |            |
| VOCs                       |             |        |                                |            |            |
| Vinyl Chloride             | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,1 Dichloroethylene       | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Trans-1,2-dichloroethylene | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,1-dichloroethane         | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Cis-1,2-dichloroethylene   | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 2,2-dichloropropane        | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Bromochloromethane         | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Chloroform                 | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,1,1-trichloroethane      | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,1-dichloropropene        | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Carbon tetrachloride       | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Benzene                    | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,2-dichloroethane         | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Trichloroethylene          | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,2-dichloropropane        | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Dibromomethane             | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Bromodichloromethane       | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| cis-1,3-dichloropropene    | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Toluene                    | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| trans-1,3-dichloropropene  | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,1,2-trichloroethane      | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Tetrachloroethylene        | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,3-dichloropropane        | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Dibromochloromethane       | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,2-dibromoethane          | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Chlorobenzene              | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1,1,1,2-tetrachloroethane  | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Ethylbenzene               | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| m+p-Xvlene                 | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| o-Xvlene                   | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Styrene                    | DETSC 3431* | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Bromoform                  | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Isopropylbenzene           | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| Bromobenzene               | DETSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 1.2.3-trichloropropane     | DFTSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| n-propylbenzene            | DFTSC 3431  | 0.01   | mg/kg                          | < 0.01     | < 0.01     |
| 2-chlorotoluene            | DETSC 3/31  | 0.01   | 8 <sup>,</sup> /ه<br>mø/ka     | < 0.01     | < 0.01     |
| 1 3 5-trimethylbenzene     | DETSC 3/31  | 0.01   | 8 <sup>יי</sup> /ةייי<br>ma/ka | < 0.01     | < 0.01     |
| 4-chlorotoluene            | DETSC 3431  | 0.01   | ma/ka                          | < 0.01     | < 0.01     |
|                            |             |        | 1112/02                        | S 17.11    | ~ \ / \ /  |



|                             |             |       | Lab No    | 2070382    | 2070383    |
|-----------------------------|-------------|-------|-----------|------------|------------|
|                             |             | .Sa   | ample ID  | F-TP106A   | F-TP106A   |
|                             |             |       | Depth     | 2.00       | 2.50       |
|                             |             |       | Other ID  |            |            |
|                             |             | Sam   | ple Type  | ES         | ES         |
|                             |             | Samp  | ling Date | 07/10/2022 | 07/10/2022 |
| <b>-</b> .                  |             | Sampl | ing Time  | n/s        | n/s        |
| Test                        | Method      | LOD   | Units     | . 0. 04    | 0.04       |
| lert-butylbenzene           | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,2,4-trimethylbenzene      | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| sec-butylbenzene            | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| p-isopropyltoluene          | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,3-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,4-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| n-butyibenzene              | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,2-dichlorobenzene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,2-dibromo-3-chioropropane | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,2,4-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| Hexachiorobutadiene         | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| 1,2,3-trichlorobenzene      | DETSC 3431  | 0.01  | mg/kg     | < 0.01     | < 0.01     |
| INT BE                      | DETSC 3431* | 0.01  | тg/кg     | < 0.01     | < 0.01     |
| Apiling                     |             | 0.1   | ma/ka     | < 0.1      | < 0.1      |
| Annine<br>2 Chlorophonol    | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
|                             | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2 Mothylphonol              | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Bis(2-chloroisopropyl)ether | DETSC 2422  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 28.4-Methylphenol           | DETSC 2422  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Bis-(dichloroethoxy)methane | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 1.2.4-Trichlorobenzene      | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2-Methylpanhthalene         | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Hexachlorocyclopentadiene   | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2 4 5-Trichlorophenol       | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2-Chloronaphthalene         | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2.4-Dinitrotoluene          | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 3-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 4-Nitrophenol               | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Dibenzofuran                | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2,6-Dinitrotoluene          | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2,3,4,6-Tetrachlorophenol   | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Diethylphthalate            | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 4-Chlorophenylphenylether   | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 4-Nitroaniline              | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 2-Methyl-4,6-Dinitrophenol  | DETSC 3433* | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Diphenylamine               | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| 4-Bromophenylphenylether    | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |
| Hexachlorobenzene           | DETSC 3433  | 0.1   | mg/kg     | < 0.1      | < 0.1      |



|                            |             |       | Lab No   | 2070382    | 2070383    |
|----------------------------|-------------|-------|----------|------------|------------|
|                            |             | .Sa   | ample ID | F-TP106A   | F-TP106A   |
|                            |             |       | Depth    | 2.00       | 2.50       |
|                            |             |       | Other ID |            |            |
|                            |             | Sam   | ple Type | ES         | ES         |
|                            |             | Sampl | ing Date | 07/10/2022 | 07/10/2022 |
|                            |             | Sampl | ing Time | n/s        | n/s        |
| Test                       | Method      | LOD   | Units    |            |            |
| Pentachlorophenol          | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Di-n-butylphthalate        | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Butylbenzylphthalate       | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Bis(2-ethylhexyl)phthalate | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Di-n-octylphthalate        | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 1,4-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Dimethylphthalate          | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 1,3-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 1,2-Dinitrobenzene         | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| 2,3,5,6-Tetrachlorophenol  | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Azobenzene                 | DETSC 3433  | 0.1   | mg/kg    | < 0.1      | < 0.1      |
| Carbazole                  | DETSC 3433* | 0.1   | mg/kg    | < 0.1      | < 0.1      |



#### **Summary of Chemical Analysis**

#### **Leachate Samples**

|                            |             |  | Lab No   | 2070390    | 2070391    | 2070392    | 2070393    |
|----------------------------|-------------|--|----------|------------|------------|------------|------------|
|                            |             | .Sa  | ample ID | F-TP106A   | F-TP116    | F-TP116    | F-TP116    |
|                            |             |  | Depth    | 2.00       | 1.50       | 3.10       | 4.10       |
|                            |             |  | Other ID |            |            |            |            |
|                            |             | Sam  | ple Type | ES         | ES         | ES         | ES         |
|                            |             | Sampl  | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 |
|                            |             | Sampl  | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                       | Method      | LOD  | Units    |            |            |            |            |
| Preparation                |             |  |          |            |            |            |            |
| Leachate 2:1 250g Non-WAC  | DETSC 1009* |  |          | Y          | Y          | Y          | Y          |
| Metals                     |             |  |          |            |            |            |            |
| Aluminium, Dissolved       | DETSC 2306  | 10   | ug/l     | 67         | 130        | 98         | 100        |
| Arsenic, Dissolved         | DETSC 2306  | 0.16   | ug/l     |            | 9.6        | 3.2        | 3.2        |
| Beryllium, Dissolved       | DETSC 2306* | 0.1  | ug/l     | < 0.1      | < 0.1      | < 0.1      | < 0.1      |
| Boron, Dissolved           | DETSC 2306* | 12   | ug/l     |            | 330        | 110        | 45         |
| Cadmium, Dissolved         | DETSC 2306  | 0.03   | ug/l     |            | < 0.03     | < 0.03     | < 0.03     |
| Chromium III, Dissolved    | DETSC 2306* | 1  | ug/l     |            | 6.1        | 1.8        | < 1.0      |
| Chromium, Hexavalent       | DETSC 2203  | 0.007  | mg/l     |            | < 0.007    | < 0.007    | < 0.007    |
| Copper, Dissolved          | DETSC 2306  | 0.4  | ug/l     |            | 1.9        | 1.4        | 2.6        |
| Iron, Dissolved            | DETSC 2306  | 5.5  | ug/l     |            | 7.7        | < 5.5      | < 5.5      |
| Lead, Dissolved            | DETSC 2306  | 0.09   | ug/l     |            | 0.78       | 0.22       | 0.17       |
| Manganese, Dissolved       | DETSC 2306  | 0.22   | ug/l     | 32         | 4.8        | 0.97       | 1.2        |
| Mercury, Dissolved         | DETSC 2306  | 0.01   | ug/l     |            | 0.04       | 0.02       | 0.02       |
| Molybdenum, Dissolved      | DETSC 2306  | 1.1  | ug/l     | 7.6        | 17         | 3.7        | 1.9        |
| Nickel, Dissolved          | DETSC 2306  | 0.5  | ug/l     |            | < 0.5      | < 0.5      | < 0.5      |
| Phosphorus as P, Dissolved | DETSC 2306  | 18   | ug/l     | 26         | 250        | 60         | 50         |
| Selenium, Dissolved        | DETSC 2306  | 0.25   | ug/l     |            | 3.3        | 1.6        | 1.1        |
| Tin, Dissolved             | DETSC 2306* | 0.4  | ug/l     | < 0.4      | < 0.4      | < 0.4      | < 0.4      |
| Vanadium, Dissolved        | DETSC 2306  | 0.6  | ug/l     | 5.1        | 27         | 24         | 9.7        |
| Zinc, Dissolved            | DETSC 2306  | 1.3  | ug/l     |            | < 1.3      | < 1.3      | < 1.3      |
| Inorganics                 |             | <u>.                                    </u> |          | <u>,</u>   |            | <u>.</u>   |            |
| pH                         | DETSC 2008  |  | pН       |            | 10.1       | 8.7        | 8.1        |
| Cyanide, Total Low Level   | DETSC 2131  | 0.1  | ug/l     |            | 1.9        | 0.5        | 0.3        |
| Cyanide, Free Low Level    | DETSC 2131  | 0.1  | ug/l     |            | < 0.1      | < 0.1      | < 0.1      |
| Thiocyanate                | DETSC 2130  | 20   | ug/l     |            | 51         | < 20       | < 20       |
| Total Hardness as CaCO3    | DETSC 2303  | 0.1  | mg/l     |            | 318        | 173        | 101        |
| Ammoniacal Nitrogen as NH4 | DETSC 2207  | 0.015  | mg/l     |            | < 0.02     | < 0.02     | < 0.02     |
| Ammoniacal Nitrogen as NH3 | DETSC 2207  | 0.015  | mg/l     |            | < 0.015    | < 0.015    | < 0.015    |
| Ammoniacal Nitrogen as N   | DETSC 2207  | 0.015  | mg/l     |            | < 0.015    | < 0.015    | < 0.015    |
| Chloride                   | DETSC 2055  | 0.1  | mg/l     | 8.9        | 55         | 22         | 8.7        |
| Fluoride                   | DETSC 2055* | 0.1  | mg/l     | 0.68       | 0.20       | 1.5        | 0.76       |
| Nitrate as NO3             | DETSC 2055  | 0.1  | mg/l     |            | 0.41       | 2.0        | 1.3        |
| Nitrite as NO2             | DETSC 2055  | 0.1  | mg/l     |            | 0.47       | < 0.10     | 0.20       |
| Ortho Phosphate as P       | DETSC 2205  | 0.01   | mg/l     | 0.01       | 0.04       | < 0.01     | < 0.01     |
| Sulphate as SO4            | DETSC 2055  | 0.1  | mg/l     |            | 63         | 22         | 12         |
| Total Organic Carbon       | DETSC 2085  | 1  | mg/l     |            | 6.2        | 3.0        | 2.2        |



#### **Summary of Chemical Analysis**

#### **Leachate Samples**

|   |             |       | Lab No   | 2070390    | 2070391    | 2070392    | 2070393    |
|---|-------------|-------|----------|------------|------------|------------|------------|
|   |             | .Si   | ample ID | F-TP106A   | F-TP116    | F-TP116    | F-TP116    |
|   |             |       | Depth    | 2.00       | 1.50       | 3.10       | 4.10       |
|   |             |       | Other ID | -          | -          | -          |            |
|   |             | Sam   | ple Type | ES         | ES         | ES         | ES         |
|   |             | Samp  | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 |
|   |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test  | Method      | LOD   | Units    | . <u> </u> | ·          |            |            |
| Petroleum Hydrocarbons                      |             |       |          |            |            |            |            |
| Aliphatic C5-C6: HS_1D_AL                   | DETSC 3322  | 0.1   | ug/l     | 24         |            | 19         |            |
| Aliphatic C6-C8: HS_1D_AL                   | DETSC 3322  | 0.1   | ug/l     | < 0.1      | 1          | < 0.1      |            |
| Aliphatic C8-C10: HS_1D_AL                  | DETSC 3322  | 0.1   | ug/l     | < 0.1      |            | < 0.1      |            |
| Aliphatic C10-C12: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Aliphatic C12-C16: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      | ſ          | < 1.0      |            |
| Aliphatic C16-C21: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Aliphatic C21-C35: EH_CU_1D_AL              | DETSC 3072* | 1     | ug/l     | < 1.0      | ſ          | < 1.0      |            |
| Aliphatic C5-C35: EH_CU+HS_1D_AL            | DETSC 3072* | 10    | ug/l     | 24         |            | 19         |            |
| Aromatic C5-C7: HS 1D_AR                    | DETSC 3322  | 0.1   | ug/l     | < 0.1      | 1          | < 0.1      |            |
| Aromatic C7-C8: HS_1D_AR                    | DETSC 3322  | 0.1   | ug/l     | < 0.1      |            | < 0.1      |            |
| Aromatic C8-C10: HS 1D AR                   | DETSC 3322  | 0.1   | ug/l     | < 0.1      |            | < 0.1      |            |
| Aromatic C10-C12: EH CU 1D AR               | DETSC 3072* | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Aromatic C12-C16: EH CU 1D AR               | DETSC 3072* | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Aromatic C16-C21: EH CU 1D AR               | DETSC 3072* | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Aromatic C21-C35: EH_CU_1D_AR               | DETSC 3072* | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Aromatic C5-C35: EH CU+HS 1D AR             | DETSC 3072* | 10    | ug/l     | < 10       |            | < 10       |            |
|   |             | -     |          |            |            |            |            |
| TPH Ali/Aro Total C5-C35: EH_CU+HS_1D_Total | DETSC 3072* | 10    | ug/l     | 25         |            | 19         |            |
| Benzene                                     | DETSC 3322  | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Toluene                                     | DETSC 3322  | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Ethylbenzene                                | DETSC 3322  | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Xylene                                      | DETSC 3322  | 1     | ug/l     | < 1.0      | ľ          | < 1.0      |            |
| PAHs  |             |       |          |            |            |            |            |
| Acenaphthene                                | DETSC 3304  | 0.01  | ug/l     |            | 0.01       | 0.05       | 0.04       |
| Acenaphthylene                              | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | 0.02       | < 0.01     |
| Anthracene                                  | DETSC 3304  | 0.01  | ug/l     |            | 0.02       | 0.01       | < 0.01     |
| Benzo(a)anthracene                          | DETSC 3304* | 0.01  | ug/l     |            | 0.02       | 0.01       | < 0.01     |
| Benzo(a)pyrene                              | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | < 0.01     | < 0.01     |
| Benzo(b)fluoranthene                        | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | < 0.01     | < 0.01     |
| Benzo(g,h,i)perylene                        | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | < 0.01     | < 0.01     |
| Benzo(k)fluoranthene                        | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | < 0.01     | < 0.01     |
| Chrysene                                    | DETSC 3304  | 0.01  | ug/l     |            | 0.02       | 0.01       | < 0.01     |
| Dibenzo(a,h)anthracene                      | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | < 0.01     | < 0.01     |
| Fluoranthene                                | DETSC 3304  | 0.01  | ug/l     |            | 0.05       | 0.03       | 0.02       |
| Fluorene                                    | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | 0.02       | 0.01       |
| Indeno(1,2,3-c,d)pyrene                     | DETSC 3304  | 0.01  | ug/l     |            | < 0.01     | < 0.01     | < 0.01     |
| Naphthalene                                 | DETSC 3304  | 0.05  | ug/l     |            | 0.09       | 0.13       | 0.13       |
| Phenanthrene                                | DETSC 3304  | 0.01  | ug/l     |            | 0.04       | 0.05       | 0.02       |
| Pyrene                                      | DETSC 3304  | 0.01  | ug/l     |            | 0.04       | 0.02       | 0.02       |



#### **Summary of Chemical Analysis**

#### **Leachate Samples**

|                         |             |       | Lab No   | 2070390    | 2070391    | 2070392    | 2070393    |
|-------------------------|-------------|-------|----------|------------|------------|------------|------------|
|                         | .Sample ID  |       |          |            | F-TP116    | F-TP116    | F-TP116    |
|                         | Depth       |       |          | 2.00       | 1.50       | 3.10       | 4.10       |
|                         |             |       | Other ID |            |            |            |            |
|                         |             | Sam   | ple Type | ES         | ES         | ES         | ES         |
|                         |             | Samp  | ing Date | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 |
|                         |             | Sampl | ing Time | n/s        | n/s        | n/s        | n/s        |
| Test                    | Method      | LOD   | Units    |            |            |            |            |
| PAH Total               | DETSC 3304  | 0.2   | ug/l     |            | 0.29       | 0.35       | 0.24       |
| PCBs                    | L           |       |          |            |            |            |            |
| PCB 28 + PCB 31         | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 52                  | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 77                  | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 81                  | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 101                 | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 105                 | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 114                 | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 118 + PCB 123       | DETSC 3402  | 0.6   | ug/l     | < 0.6      |            | < 0.6      |            |
| PCB 126                 | DETSC 3402  | 0.5   | ug/l     | < 0.5      |            | < 0.5      |            |
| PCB 138                 | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 153                 | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 156                 | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 157                 | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 167                 | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 169                 | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 180                 | DETSC 3402  | 0.2   | ug/l     | < 0.2      |            | < 0.2      |            |
| PCB 189                 | DETSC 3402  | 0.3   | ug/l     | < 0.3      |            | < 0.3      |            |
| PCB 12                  | DETSC 3402  | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| PCB 7 Total             | DETSC 3402  | 1     | ug/l     | < 1.0      |            | < 1.0      |            |
| Phenols                 |             |       |          |            |            |            |            |
| Phenol                  | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| 4-Chloro-3-methylphenol | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| 2,4-Dichlorophenol      | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| 2,4-Dimethylphenol      | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| p-cresol                | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| 2,6-Dimethylphenol      | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| 2,6-Dichlorophenol      | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| 2,4,6-Trichlorophenol   | DETSC 3451* | 0.1   | ug/l     | < 0.10     |            | < 0.10     |            |
| Subcontracted Analysis  |             |       |          |            |            |            |            |
| Hexavalent Chromium     | \$*         | <2    | ug/kg    | <2         | <2         | <2         |            |

# *I* DETS

## Summary of Asbestos Analysis Soil Samples

Our Ref 22-20457 Client Ref 60678042 Contract Title NZT Feed GI

| Lab No  | Sample ID     | Material Type | Result     | Comment*                            | Analyst   |
|---------|---------------|---------------|------------|-------------------------------------|-----------|
| 2070379 | F-TP106A 0.00 | SOIL          | Chrysotile | Chrysotile present as fibre bundles | Josh Best |
| 2070380 | F-TP106A 0.50 | SOIL          | NAD        | none                                | Josh Best |
| 2070381 | F-TP106A 1.00 | SOIL          | NAD        | none                                | Josh Best |
| 2070384 | F-TP116 0.20  | SOIL          | NAD        | none                                | Josh Best |
| 2070385 | F-TP116 0.80  | SOIL          | NAD        | none                                | Josh Best |
| 2070386 | F-TP116 1.50  | SOIL          | NAD        | none                                | Josh Best |
| 2070387 | F-TP116 3.10  | SOIL          | NAD        | none                                | Josh Best |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETSC 1101 using polarised light microscopy in accordance with HSG248 and documented in-house methods. NAD = No Asbestos Detected. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'. Key: \* -not included in laboratory scope of accreditation.



#### Summary of Asbestos Quantification Analysis Soil Samples

*Our Ref* 22-20457 *Client Ref* 60678042 *Contract Title* NZT Feed GI

|   |                  | Lab No     | 2070379    |
|---|------------------|------------|------------|
|   | .:               | Sample ID  | F-TP106A   |
|   |                  | Depth      | 0.00       |
|   |                  | Other ID   |            |
|   | Sar              | nple Type  | ES         |
|   | Samj             | oling Date | 07/10/2022 |
|   | Samp             | oling Time |            |
| Test  | Method           | Units      |            |
| Total Mass% Asbestos (a+b+c)                          | DETSC 1102       | Mass %     | 0.004      |
| Gravimetric Quantification (a)                        | DETSC 1102       | Mass %     | na         |
| Detailed Gravimetric Quantification (b)               | DETSC 1102       | Mass %     | 0.004      |
| Quantification by PCOM (c)                            | DETSC 1102       | Mass %     | na         |
| Potentially Respirable Fibres (d)                     | DETSC 1102       | Fibres/g   | na         |
| Breakdown of Gravimetric Analysis (a)                 |                  |            |            |
| Mass of Sample  |                  | g          | 1482.03    |
| ACMs present*   |                  | type       |            |
| Mass of ACM in sample                                 |                  | g          |            |
| % ACM by mass   |                  | %          |            |
| % asbestos in ACM                                     |                  | %          |            |
| % asbestos in sample                                  |                  | %          |            |
| Breakdown of Detailed Gravimetric Analysis (b)        |                  |            |            |
| % Amphibole bundles in sample                         |                  | Mass %     | na         |
| % Chrysotile bundles in sample                        |                  | Mass %     | 0.004      |
| Breakdown of PCOM Analysis (c)                        |                  |            |            |
| % Amphibole fibres in sample                          |                  | Mass %     | na         |
| % Chrysotile fibres in sample                         |                  | Mass %     | na         |
| Breakdown of Potentially Respirable Fibre Analysis (d | )                |            |            |
| Amphibole fibres                                      |                  | Fibres/g   | na         |
| Chrysotile fibres                                     |                  | Fibres/g   | na         |
|   |                  |            |            |
| * Denotes test or material description outside of UKA | S accreditation. |            |            |

% asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264. Recommended sample size for quantification is approximately 1kg # denotes deviating sample



Inappropriate

#### Information in Support of the Analytical Results

Our Ref 22-20457 Client Ref 60678042 Contract NZT Feed GI

#### **Containers Received & Deviating Samples**

#### container for Date Sampled Containers Received Holding time exceeded for tests Lab No Sample ID tests 2070379 F-TP106A 0.00 SOIL GJ 250ml, GJ 60ml, PT 1L 07/10/22 Ammonia (3 days) 2070380 F-TP106A 0.50 SOIL 07/10/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2070381 F-TP106A 1.00 SOIL 07/10/22 GJ 250ml, GJ 60ml, PT 1L 2070382 Ammonia (3 days) F-TP106A 2.00 SOIL 07/10/22 GJ 250ml. GJ 60ml. PT 1L Ammonia (3 days) 2070383 F-TP106A 2.50 SOIL 07/10/22 GJ 250ml, GJ 60ml, PT 1L 2070384 F-TP116 0.20 SOIL GJ 250ml, GJ 60ml, PT 1L 06/10/22 Ammonia (3 days) 2070385 F-TP116 0.80 SOIL 06/10/22 GJ 250ml, GJ 60ml, PT 1L F-TP116 1.50 SOIL 2070386 07/10/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2070387 F-TP116 3.10 SOIL 07/10/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) F-TP116 4.10 SOIL 2070388 07/10/22 GJ 250ml, GJ 60ml, PT 1L Ammonia (3 days) 2070389 F-TP116 4.50 SOIL 07/10/22 GJ 250ml, GJ 60ml, PT 1L 2070390 F-TP106A 2.00 LEACHATE 07/10/22 GJ 250ml, GJ 60ml, PT 1L 2070391 F-TP116 1.50 LEACHATE 07/10/22 GJ 250ml, GJ 60ml, PT 1L 2070392 F-TP116 3.10 LEACHATE 07/10/22 GJ 250ml, GJ 60ml, PT 1L 2070393 F-TP116 4.10 LEACHATE 07/10/22 GJ 250ml, GJ 60ml, PT 1L

Key: G-Glass P-Plastic J-Jar T-Tub

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis.

The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-

Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months



#### Information in Support of the Analytical Results

| Acronym | Description   |
|---------|---|
| HS      | Headspace analysis  |
| EH      | Extractable Hydrocarbons - i.e. everything extracted by the solvent |
| CU      | Clean-up - e.g. by florisil, silica gel                             |
| 1D      | GC - Single coil gas chromatography                                 |
| 2D      | GC-GC - Double coil gas chromatography                              |
| Total   | Aliphatics & Aromatics  |
| AL      | Aliphatics only   |
| AR      | Aromatics only  |
| #1      | EH_2D_Total but with humics mathematically subtracted               |
| #2      | EH_2D_Total but with fatty acids mathematically subtracted          |
| _       | Operator - underscore to separate acronyms (exception for +)        |
| +       | Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total   |
|         |   |

#### List of HWOL Acronyms and Operators

#### Det

| Det                      | Acronym           |
|--------------------------|-------------------|
| Aliphatic C5-C6          | HS_1D_AL          |
| Aliphatic C6-C8          | HS_1D_AL          |
| Aliphatic C8-C10         | HS_1D_AL          |
| Aliphatic C10-C12        | EH_CU_1D_AL       |
| Aliphatic C12-C16        | EH_CU_1D_AL       |
| Aliphatic C16-C21        | EH_CU_1D_AL       |
| Aliphatic C21-C35        | EH_CU_1D_AL       |
| Aliphatic C35-C40        | EH_CU_1D_AL       |
| Aliphatic C5-C40         | EH_CU+HS_1D_AL    |
| Aromatic C5-C7           | HS_1D_AR          |
| Aromatic C7-C8           | HS_1D_AR          |
| Aromatic C8-C10          | HS_1D_AR          |
| Aromatic C10-C12         | EH_CU_1D_AR       |
| Aromatic C12-C16         | EH_CU_1D_AR       |
| Aromatic C16-C21         | EH_CU_1D_AR       |
| Aromatic C21-C35         | EH_CU_1D_AR       |
| Aromatic C35-C40         | EH_CU_1D_AR       |
| Aromatic C5-C40          | EH_CU+HS_1D_AR    |
| TPH Ali/Aro C5-C40       | EH_CU+HS_1D_Total |
| Aliphatic C5-C35         | EH_CU+HS_1D_AL    |
| Aromatic C5-C35          | EH_CU+HS_1D_AR    |
| TPH Ali/Aro Total C5-C35 | EH_CU+HS_1D_Total |



Issued:

Certificate Number 22-22032

Client Aecom Nottingham 12 Regan Way Chetwynd Business Park Chilwell Nottingham NG9 6RZ

- *Our Reference* 22-22032
- *Client Reference* 60678042
  - Order No (not supplied)
  - Contract Title NZT Feed GI
  - Description One Soil sample.
  - Date Received 31-Oct-22
  - Date Started 31-Oct-22
- Date Completed 04-Nov-22

Test Procedures Identified by prefix DETSn (details on request).

*Notes* Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

Approved By

lopmood

Kirk Bridgewood General Manager



04-Nov-22



|                                 |             |       | Lab No   | 2078777    |
|---------------------------------|-------------|-------|----------|------------|
|                                 |             | .Sa   | ample ID | F-TP112    |
|                                 |             |       | Depth    | 4.00-4.50  |
|                                 |             |       | Other ID |            |
|                                 |             | Sam   | ple Type | В          |
|                                 |             | Sampl | ing Date | 26/09/2022 |
|                                 |             | Sampl | ing Time | n/s        |
| Test                            | Method      | LOD   | Units    |            |
| Metals                          |             |       |          |            |
| Magnesium Aqueous Extract       | DETSC 2076* | 10    | mg/l     | < 10       |
| Inorganics                      |             |       |          |            |
| рН                              | DETSC 2008# |       | pН       | 11.2       |
| Chloride Aqueous Extract        | DETSC 2055  | 1     | mg/l     | 13         |
| Nitrate Aqueous Extract as NO3  | DETSC 2055  | 1     | mg/l     | 4.2        |
| Sulphate Aqueous Extract as SO4 | DETSC 2076# | 10    | mg/l     | 42         |
| Sulphur as S, Total             | DETSC 2320  | 0.01  | %        | 0.09       |
| Sulphate as SO4, Total          | DETSC 2321# | 0.01  | %        | 0.22       |



#### Information in Support of the Analytical Results

*Our Ref* 22-22032 *Client Ref* 60678042 *Contract* NZT Feed GI

#### **Containers Received & Deviating Samples**

|              |                        | Date     |                            |  | Inappropriate container for |
|--------------|------------------------|----------|----------------------------|--|-----------------------------|
| Lab No       | Sample ID              | Sampled  | <b>Containers Received</b> | Holding time exceeded for tests  | tests                       |
| 2078777      | F-TP112 4.00-4.50 SOIL | 26/09/22 | PT 1L                      | Anions 2:1 (30 days), Total Sulphur ICP (7 days),<br>Total Sulphate ICP (30 days), pH + Conductivity (7<br>days) |                             |
| Key: P-Plast | ic T-Tub               |          | •                          |  |                             |

DETS cannot be held responsible for the integrity of samples received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating. Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note 'Guidance on Deviating Samples'. All samples received are listed above. However, those samples that have additional comments in relation to hold time, inappropriate containers etc are deviating due to the reasons stated. This means that the analysis is accredited where applicable, but results may be compromised due to sample deviations. If no sampled date (soils) or date+time (waters) has been supplied then samples are deviating. However, if you are able to supply a sampled date (and time for waters) this will prevent samples being reported as deviating where specific hold times are not exceeded and where the container supplied is suitable.

#### **Soil Analysis Notes**

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425µm sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organics results are corrected for moisture and expressed on a dry weight basis. The Loss on Drying, used to express organics analysis on an air dried basis, is carried out at a temperature of 28°C +/-2°C.

#### Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-Soils - 1 month, Liquids - 2 weeks, Asbestos (test portion) - 6 months

End of Report



Element Materials Technology Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA P: +44 (0) 1244 833780 F: +44 (0) 1244 833781

W: www.element.com



Five samples were received for analysis on 12th October, 2022 of which five were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

5.6000

Simon Gomery BSc Project Manager

Please include all sections of this report if it is reproduced

#### **Element Materials Technology**

| Client Name:                          | Arcadis                         |                                |                                |                            |                            | Report :                             | Liquid     |              |                   |               |                              |               |
|---------------------------------------|---------------------------------|--------------------------------|--------------------------------|----------------------------|----------------------------|--------------------------------------|------------|--------------|-------------------|---------------|------------------------------|---------------|
| Reference:                            | 10047374                        | Ļ                              |                                |                            |                            |                                      |            |              |                   |               |                              |               |
| Location:                             | Redcar                          |                                |                                |                            |                            |                                      |            |              |                   |               |                              |               |
| Contact:                              | Andy Smi                        | th                             |                                |                            |                            | Liquids/pr                           | oducts: V= | 40ml vial, G | G=glass bott      | le, P=plastic | bottle                       |               |
| EMT Job No:                           | 22/16637                        |                                |                                |                            |                            | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | =HN0 <sub>3</sub> |               |                              |               |
| EMT Sample No                         | 1_7                             | 8-14                           | 15-21                          | 22-28                      | 20.35                      |                                      |            |              |                   |               |                              |               |
| EMT Sample No.                        | 1-7                             | 0-14                           | 13-21                          | 22-20                      | 29-33                      |                                      |            |              |                   |               |                              |               |
| Sample ID                             | 01S2-<br>BHA04S05102<br>2WG1125 | 02F-<br>BH102D05102<br>2WG1235 | 03F-<br>BH102S05102<br>2WG1400 | 04MS/BH13S0<br>51022WG1500 | 05MS/BH13D0<br>51022WG1600 |                                      |            |              |                   |               |                              |               |
| Depth                                 |                                 |                                |                                |                            |                            |                                      |            |              |                   | D             |                              |               |
| COC No / mino                         |                                 |                                |                                |                            |                            |                                      |            |              |                   | abbrevi       | e attached n<br>ations and a | cronyms       |
| COC NO / MISC                         |                                 |                                |                                |                            |                            |                                      |            |              |                   |               |                              |               |
| Containers                            | V H HN N P G                    | V H HN N P G                   | V H HN N P G                   | V H HN N P G               | V H HN N P G               |                                      |            |              |                   |               |                              |               |
| Sample Date                           | 05/10/2022 11:25                | 05/10/2022 11:35               | 05/10/2022 14:00               | 05/10/2022 15:00           | 05/10/2022 16:00           |                                      |            |              |                   |               |                              |               |
| Sample Type                           | Ground Water                    | Ground Water                   | Ground Water                   | Ground Water               | Ground Water               |                                      |            |              |                   |               |                              |               |
| Batch Number                          | 1                               | 1                              | 1                              | 1                          | 1                          |                                      |            |              |                   |               |                              |               |
| Baton Nambor                          |                                 |                                |                                |                            |                            |                                      |            |              |                   | LOD/LOR       | Units                        | Method<br>No. |
| Date of Receipt                       | 12/10/2022                      | 12/10/2022                     | 12/10/2022                     | 12/10/2022                 | 12/10/2022                 |                                      |            |              |                   |               |                              |               |
| Dissolved Arsenic <sup>#</sup>        | 3.7                             | 5.0                            | <2.5                           | 8.6                        | 4.5                        |                                      |            |              |                   | <2.5          | ug/l                         | TM30/PM1      |
| Dissolved Barium <sup>#</sup>         | 186                             | 88                             | 96                             | 39                         | 53                         |                                      |            |              |                   | <3            | ug/l                         | TM30/PM14     |
| Dissolved Beryllium                   | <0.5                            | <0.5                           | <0.5                           | <0.5                       | <0.5                       |                                      |            |              |                   | <0.5          | ug/l                         | TM30/PM1      |
| Dissolved Boron                       | 46                              | 287                            | 70                             | 821                        | 1341                       |                                      |            |              |                   | <12           | ug/l                         | TM30/PM1      |
| Dissolved Cadmium <sup>#</sup>        | <0.5                            | <0.5                           | <0.5                           | <0.5                       | <0.5                       |                                      |            |              |                   | <0.5          | ug/l                         | TM30/PM1      |
| Total Dissolved Chromium <sup>#</sup> | 9.6                             | 9.1                            | 12.2                           | 3.2                        | 3.2                        |                                      |            |              |                   | <1.5          | ug/l                         | TM30/PM14     |
| Dissolved Copper <sup>#</sup>         | <7                              | <7                             | <7                             | <7                         | <7                         |                                      |            |              |                   | <7            | ug/l                         | TM30/PM14     |
| Dissolved Lead <sup>#</sup>           | <5                              | <5                             | <5                             | <5                         | <5                         |                                      |            |              |                   | <5            | ug/l                         | TM30/PM1      |
| Dissolved Manganese <sup>#</sup>      | 3                               | <2                             | <2                             | 107                        | 1607                       |                                      |            |              |                   | <2            | ug/l                         | TM30/PM1      |
| Dissolved Mercury <sup>#</sup>        | <1                              | <1                             | <1                             | <1                         | <1                         |                                      |            |              |                   | <1            | ug/l                         | TM30/PM1      |
| Dissolved Nickel <sup>#</sup>         | 6                               | 2                              | 3                              | <2                         | 4                          |                                      |            |              |                   | <2            | ug/l                         | TM30/PM14     |
| Dissolved Selenium <sup>#</sup>       | 4                               | 9                              | 7                              | <3                         | <3                         |                                      |            |              |                   | <3            | ug/l                         | TM30/PM14     |
| Dissolved Vanadium <sup>#</sup>       | 51.3                            | 9.6                            | <1.5                           | <1.5                       | <1.5                       |                                      |            |              |                   | <1.5          | ug/l                         | TM30/PM14     |
| Dissolved Zinc <sup>#</sup>           | 3                               | <3                             | <3                             | <3                         | <3                         |                                      |            |              |                   | <3            | ug/l                         | TM30/PM14     |
|                                       |                                 |                                |                                |                            |                            |                                      |            |              |                   |               |                              |               |
|                                       |                                 |                                |                                |                            |                            |                                      |            |              |                   |               |                              |               |
|                                       |                                 |                                |                                |                            |                            |                                      |            |              |                   |               |                              |               |
|                                       |                                 |                                |                                |                            |                            |                                      |            |              |                   |               |                              |               |
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|                                       |                                 | 1                              | 1                              | 1                          |                            | 1                                    |            |              |                   |               |                              | 1             |

#### **Element Materials Technology**

| Client Name: | Arcadis  |
|--------------|----------|
| Reference:   | 10047374 |
| Location:    | Redcar   |

Contact: Andy Smith

| EMT<br>Job<br>No. | Batch   | Sample ID | Depth | EMT<br>Sample<br>No. | Analysis | Reason |  |  |  |  |  |  |
|-------------------|---|-----------|-------|----------------------|----------|--------|--|--|--|--|--|--|
|                   | No deviating sample report results for job 22/16637 |           |       |                      |          |        |  |  |  |  |  |  |
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|                   |   |           |       |                      |          |        |  |  |  |  |  |  |
|                   |   |           |       |                      |          |        |  |  |  |  |  |  |

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.
## NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

**EMT Job No.:** 22/16637

### SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

### WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

### STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

### **DEVIATING SAMPLES**

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

### SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

### DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

### BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

### NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

### **REPORTS FROM THE SOUTH AFRICA LABORATORY**

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

### **Measurement Uncertainty**

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

### **Customer Provided Information**

Sample ID and depth is information provided by the customer.

## ABBREVIATIONS and ACRONYMS USED

| #       | ISO17025 (UKAS Ref No. 4225) accredited - UK.  |
|---------|--|
| SA      | ISO17025 (SANAS Ref No.T0729) accredited - South Africa  |
| В       | Indicates analyte found in associated method blank.  |
| DR      | Dilution required.   |
| М       | MCERTS accredited.   |
| NA      | Not applicable   |
| NAD     | No Asbestos Detected.  |
| ND      | None Detected (usually refers to VOC and/SVOC TICs).   |
| NDP     | No Determination Possible  |
| SS      | Calibrated against a single substance  |
| SV      | Surrogate recovery outside performance criteria. This may be due to a matrix effect.   |
| W       | Results expressed on as received basis.  |
| +       | AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.                           |
| >>      | Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher. |
| *       | Analysis subcontracted to an Element Materials Technology approved laboratory.   |
| AD      | Samples are dried at 35°C ±5°C   |
| со      | Suspected carry over   |
| LOD/LOR | Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS  |
| ME      | Matrix Effect  |
| NFD     | No Fibres Detected   |
| BS      | AQC Sample   |
| LB      | Blank Sample   |
| N       | Client Sample  |
| ТВ      | Trip Blank Sample  |
| ос      | Outside Calibration Range  |

### HWOL ACRONYMS AND OPERATORS USED

| HS    | Headspace Analysis.  |
|-------|--|
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent. |
| CU    | Clean-up - e.g. by florisil, silica gel.                             |
| 1D    | GC - Single coil gas chromatography.                                 |
| Total | Aliphatics & Aromatics.  |
| AL    | Aliphatics only.   |
| AR    | Aromatics only.  |
| 2D    | GC-GC - Double coil gas chromatography.                              |
| #1    | EH_Total but with humics mathematically subtracted                   |
| #2    | EU_Total but with fatty acids mathematically subtracted              |
| _     | Operator - underscore to separate acronyms (exception for +).        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total   |
| MS    | Mass Spectrometry.   |

EMT Job No: 22/16637

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
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Method Code Appendix



Element Materials Technology Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA P: +44 (0) 1244 833780 F: +44 (0) 1244 833781

W: www.element.com



Five samples were received for analysis on 12th October, 2022 of which five were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

5.60 20

Simon Gomery BSc Project Manager

Please include all sections of this report if it is reproduced

| Client Name:<br>Reference:              | Arcadis<br>10047374<br>Redcar   | Ļ                              |                                |                            |                            | Report :                             | Liquid     |              |             |               |              |                        |
|---|---------------------------------|--------------------------------|--------------------------------|----------------------------|----------------------------|--------------------------------------|------------|--------------|-------------|---------------|--------------|------------------------|
| Location:                               | Andy Smit                       | th                             |                                |                            |                            | 1. 1                                 |            | 10           |             | D             | h = 441 =    |                        |
|   | Anuy Shi                        | uı                             |                                |                            |                            |                                      | oducts: V= | 40mi viai, G | =glass bott | ie, P=plastic | bottle       |                        |
| EMI JOD NO:                             | 22/1003/                        |                                |                                |                            |                            | п-п <sub>2</sub> 50 <sub>4</sub> , л | Z-ZNAC, N- |              | -ΠΝU3       |               |              |                        |
| EMT Sample No.                          | 1-7                             | 8-14                           | 15-21                          | 22-28                      | 29-35                      |                                      |            |              |             |               |              |                        |
| Sample ID                               | 01S2-<br>BHA04S05102<br>2WG1125 | 02F-<br>BH102D05102<br>2WG1235 | 03F-<br>BH102S05102<br>2WG1400 | 04MS/BH13S0<br>51022WG1500 | 05MS/BH13D0<br>51022WG1600 |                                      |            |              |             |               |              |                        |
| Depth                                   |                                 |                                |                                |                            |                            |                                      |            |              |             | Diagon an     | o ottoobod n | otoo for all           |
| COC No / misc                           |                                 |                                |                                |                            |                            |                                      |            |              |             | abbrevia      | ations and a | cronyms                |
| Containan                               |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
| Containers                              | VEENINFG                        | VIIINNEG                       | VEENNEG                        | VITININEG                  | VENNEG                     |                                      |            |              |             |               |              |                        |
| Sample Date                             | 05/10/2022 11:25                | 05/10/2022 11:35               | 05/10/2022 14:00               | 05/10/2022 15:00           | 05/10/2022 16:00           |                                      |            |              |             |               |              |                        |
| Sample Type                             | Ground Water                    | Ground Water                   | Ground Water                   | Ground Water               | Ground Water               |                                      |            |              |             |               |              |                        |
| Batch Number                            | 1                               | 1                              | 1                              | 1                          | 1                          |                                      |            |              |             |               | Units        | Method                 |
| Date of Receipt                         | 12/10/2022                      | 12/10/2022                     | 12/10/2022                     | 12/10/2022                 | 12/10/2022                 |                                      |            |              |             | LOBILOIT      | onito        | No.                    |
| PAH MS                                  |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
| Naphthalene <sup>#</sup>                | 0.1                             | <0.1                           | <0.1                           | 0.1                        | 0.1                        |                                      |            |              |             | <0.1          | ug/l         | TM4/PM30               |
| Acenaphthylene #                        | <0.005                          | <0.005                         | <0.005                         | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Acenaphthene <sup>#</sup>               | 0.050                           | <0.005                         | <0.005                         | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Fluorene #                              | <0.005                          | <0.005                         | <0.005                         | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Phenanthrene <sup>#</sup>               | 0.140                           | <0.005                         | 0.084                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Anthracene <sup>#</sup>                 | 0.043                           | <0.005                         | 0.019                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Fluoranthene <sup>#</sup>               | 0.141                           | 0.048                          | 0.209                          | <0.005                     | 0.016                      |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Pyrene#                                 | 0.111                           | 0.047                          | 0.185                          | <0.005                     | 0.018                      |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Benzo(a)anthracene <sup>#</sup>         | <0.005                          | <0.005                         | 0.078                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Chrysene <sup>#</sup>                   | <0.005                          | <0.005                         | 0.108                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Benzo(bk)fluoranthene <sup>#</sup>      | <0.008                          | <0.008                         | 0.205                          | <0.008                     | <0.008                     |                                      |            |              |             | <0.008        | ug/l         | TM4/PM30               |
| Benzo(a)pyrene <sup>#</sup>             | <0.005                          | <0.005                         | 0.103                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Indeno(123cd)pyrene#                    | <0.005                          | <0.005                         | 0.069                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Dibenzo(ah)anthracene <sup>#</sup>      | <0.005                          | <0.005                         | <0.005                         | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| Benzo(ghi)perylene <sup>#</sup>         | <0.005                          | <0.005                         | 0.065                          | <0.005                     | <0.005                     |                                      |            |              |             | <0.005        | ug/l         | TM4/PM30               |
| PAH 16 Total <sup>#</sup>               | 0.585                           | <0.173                         | 1.125                          | <0.173                     | <0.173                     |                                      |            |              |             | <0.173        | ug/l         | TM4/PM30               |
| Benzo(b)fluoranthene                    | <0.008                          | <0.008                         | 0.148                          | <0.008                     | <0.008                     |                                      |            |              |             | <0.008        | ug/l         | TM4/PM30               |
| Benzo(k)fluoranthene                    | <0.008                          | <0.008                         | 0.057                          | <0.008                     | <0.008                     |                                      |            |              |             | <0.008        | ug/l         | TM4/PM30               |
| PAH Surrogate % Recovery                | 85                              | 81                             | 82                             | 86                         | 80                         |                                      |            |              |             | <0            | %            | TM4/PM30               |
|   |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
| Methyl Tertiary Butyl Ether #           | <0.1                            | <0.1                           | <0.1                           | <0.1                       | <0.1                       |                                      |            |              |             | <0.1          | ug/l         | TM15/PM10              |
| Benzene <sup>#</sup>                    | <0.5                            | <0.5                           | <0.5                           | <0.5                       | <0.5                       |                                      |            |              |             | <0.5          | ug/l         | TM15/PM10              |
| Toluene <sup>#</sup>                    | <5                              | <5                             | 10                             | <5                         | <5                         |                                      |            |              |             | <5            | ug/l         | TM15/PM10              |
| Ethylbenzene <sup>#</sup>               | <1                              | <1                             | <1                             | <1                         | <1                         |                                      |            |              |             | <1            | ug/l         | TM15/PM10              |
| m/p-Xylene <sup>#</sup>                 | <2                              | <2                             | <2                             | <2                         | <2                         |                                      |            |              |             | <2            | ug/l         | TM15/PM10              |
| o-Xylene <sup>#</sup>                   | <1                              | <1                             | <1                             | <1                         | <1                         |                                      |            |              |             | <1            | ug/l         | TM15/PM10              |
| Surrogate Recovery Toluene D8           | 100                             | 102                            | 104                            | 104                        | 108                        |                                      |            |              |             | <0            | %            | TM15/PM10              |
| Surrogate Recovery 4-Bromofluorobenzene | 105                             | 102                            | 102                            | 105                        | 107                        |                                      |            |              |             | <0            | %            | TM15/PM10              |
|   |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
|   |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
| TPH CWG                                 |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
| Aliphatics                              |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
| >C5-C6 <sup>#</sup>                     | <10                             | 24                             | 98                             | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM36/PM12              |
| >C6-C8 <sup>#</sup>                     | <10                             | 64                             | 184                            | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM36/PM12              |
| >C8-C10 <sup>#</sup>                    | <10                             | 304                            | 989                            | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM36/PM12              |
| >C10-C12 <sup>#</sup>                   | <5                              | <5                             | <5                             | <5                         | <5                         |                                      |            |              |             | <5            | ug/l         | TM5/PM16/PM3           |
| >C12-C16#                               | <10                             | <10                            | <10                            | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM5/PM16/PM3           |
| >C16-C21#                               | <10                             | <10                            | <10                            | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM5/PM16/PM3           |
| >C21-C35#                               | <10                             | <10                            | <10                            | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM5/PM16/PM3           |
| Total aliphatics C5-35 <sup>#</sup>     | <10                             | 392                            | 1271                           | <10                        | <10                        |                                      |            |              |             | <10           | ug/l         | TM5/TM36/PM12/PM16/PM0 |
|   |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
|   |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |
|   |                                 |                                |                                |                            |                            |                                      |            |              |             |               |              |                        |

| Client Name:                           | Arcadis                         |                                |                                |                            |                            | Report :                             | Liquid     |           |                                  |                |              |                        |
|--|---------------------------------|--------------------------------|--------------------------------|----------------------------|----------------------------|--------------------------------------|------------|-----------|----------------------------------|----------------|--------------|------------------------|
| Reference:                             | 10047374<br>Redear              | Ļ                              |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
| Contact:                               | Andv Smi                        | th                             |                                |                            |                            | Liquids/pr                           | oducts: V= | 40ml vial | eqlass bott                      | le P=plastic   | bottle       |                        |
| EMT Job No:                            | 22/16637                        |                                |                                |                            |                            | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN= | =giass bott<br>=HN0 <sub>3</sub> | ic, i -piastic | bottie       |                        |
|  |                                 |                                | 15.04                          |                            | 00.05                      | 2 40                                 |            |           | Ĵ                                |                |              |                        |
| EMT Sample No.                         | 1-7                             | 8-14                           | 15-21                          | 22-28                      | 29-35                      |                                      |            |           |                                  |                |              |                        |
| Sample ID                              | 01S2-<br>BHA04S05102<br>2WG1125 | 02F-<br>BH102D05102<br>2WG1235 | 03F-<br>BH102S05102<br>2WG1400 | 04MS/BH13S0<br>51022WG1500 | 05MS/BH13D0<br>51022WG1600 |                                      |            |           |                                  |                |              |                        |
| Depth                                  |                                 |                                |                                |                            |                            |                                      |            |           |                                  | Disesses       |              |                        |
| COC No / miss                          |                                 |                                |                                |                            |                            |                                      |            |           |                                  | abbrevi        | ations and a | cronyms                |
| COC NO7 misc                           |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
| Containers                             | V H HN N P G                    | V H HN N P G                   | V H HN N P G                   | V H HN N P G               | V H HN N P G               |                                      |            |           |                                  |                |              |                        |
| Sample Date                            | 05/10/2022 11:25                | 05/10/2022 11:35               | 05/10/2022 14:00               | 05/10/2022 15:00           | 05/10/2022 16:00           |                                      |            |           |                                  |                |              |                        |
| Sample Type                            | Ground Water                    | Ground Water                   | Ground Water                   | Ground Water               | Ground Water               |                                      |            |           |                                  |                |              |                        |
| Batch Number                           | 1                               | 1                              | 1                              | 1                          | 1                          |                                      |            |           |                                  |                |              | Mothod                 |
| Date of Receipt                        | 12/10/2022                      | 12/10/2022                     | 12/10/2022                     | 12/10/2022                 | 12/10/2022                 |                                      |            |           |                                  | LOD/LOR        | Units        | No.                    |
|  | 12/10/2022                      | 12/10/2022                     | 12/10/2022                     | 12/10/2022                 | 12/10/2022                 |                                      |            |           |                                  |                |              |                        |
| IPH CWG                                |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
| Aromatics                              | <10                             | <10                            | <10                            | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM26/DM12              |
| >00-E07                                | <10                             | <10                            | 11                             | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM36/PM12              |
| >EC8-EC10#                             | <10                             | 20                             | 52                             | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM36/PM12              |
| >EC10-EC12 <sup>#</sup>                | <5                              | <5                             | <5                             | <5                         | <5                         |                                      |            |           |                                  | <5             | ug/l         | TM5/PM16/PM30          |
| >EC12-EC16 <sup>#</sup>                | <10                             | <10                            | 10                             | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM5/PM16/PM30          |
| >EC16-EC21#                            | <10                             | <10                            | <10                            | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM5/PM16/PM30          |
| >EC21-EC35#                            | <10                             | <10                            | <10                            | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM5/PM16/PM30          |
| Total aromatics C5-35 <sup>#</sup>     | <10                             | 20                             | 73                             | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Total aliphatics and aromatics(C5-35)# | <10                             | 412                            | 1344                           | <10                        | <10                        |                                      |            |           |                                  | <10            | ug/l         | TM5/TM36/PM12/PM16/PM3 |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
| Phenol <sup>#</sup>                    | <0.01                           | <0.01                          | <0.01                          | <0.01                      | <0.01                      |                                      |            |           |                                  | <0.01          | mg/l         | TM26/PM0               |
| Nitrate as NO3 <sup>#</sup>            | <0.2                            | <0.2                           | <0.2                           | <0.2                       | <0.2                       |                                      |            |           |                                  | <0.2           | mg/l         | TM38/PM0               |
| Nitrite as NO2 <sup>#</sup>            | 0.22                            | <0.02                          | <0.02                          | <0.02                      | <0.02                      |                                      |            |           |                                  | <0.02          | mg/l         | TM38/PM0               |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
| Free Cyanide <sup>#</sup>              | 0.09                            | 0.01                           | <0.01                          | 0.02                       | <0.01                      |                                      |            |           |                                  | <0.01          | mg/l         | TM89/PM0               |
| Ammoniacal Nitrogen as N <sup>#</sup>  | 2.64                            | 0.30                           | 0.37                           | 4.64                       | 5.74                       |                                      |            |           |                                  | <0.03          | mg/l         | TM38/PM0               |
| Hexavalent Chromium                    | <6                              | <6                             | <6                             | <6                         | <6                         |                                      |            |           |                                  | <6             | ug/l         | TM38/PM0               |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
| Thiocyanate                            | 0.20                            | 0.11                           | 0.04                           | 9.54 <sub>AA</sub>         | <0.02                      |                                      |            |           |                                  | <0.02          | mg/l         | TM107/PM0              |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 |                                |                                |                            |                            |                                      |            |           |                                  |                |              |                        |
|  |                                 | 1                              |                                |                            |                            | 1                                    |            |           |                                  |                |              | 1                      |

 Client Name:
 Arcadis

 Reference:
 10047374

 Location:
 Redcar

 Contact:
 Andy Smith

SVOC Report : Liquid

| EMT Job No:                            | 22/16637             |                     |                     |                  |                    |  |  |           |              |                 |
|--|----------------------|---------------------|---------------------|------------------|--------------------|--|--|-----------|--------------|-----------------|
| EMT Sample No.                         | 1-7                  | 8-14                | 15-21               | 22-28            | 29-35              |  |  | Ì         |              |                 |
|  |                      | 0.05                | 0.05                |                  |                    |  |  |           |              |                 |
| Sample ID                              | 01S2-<br>BHA04S05102 | 02F-<br>BH102D05102 | 03F-<br>BH102S05102 | 04MS/BH13S0      | 05MS/BH13D0        |  |  |           |              |                 |
|  | 2WG1125              | 2WG1235             | 2WG1400             | 510220031500     | 510227031000       |  |  |           |              |                 |
| Depth                                  |                      |                     |                     |                  |                    |  |  | Please se | e attached r | otes for all    |
| COC No / misc                          |                      |                     |                     |                  |                    |  |  | abbrevi   | ations and a | cronyms         |
| Containers                             | V H HN N P G         | V H HN N P G        | V H HN N P G        | V H HN N P G     | V H HN N P G       |  |  |           |              |                 |
| Sample Date                            | 05/10/2022 11:25     | 05/10/2022 11:35    | 05/10/2022 14:00    | 05/10/2022 15:00 | 05/10/2022 16:00   |  |  |           |              |                 |
| Sample Type                            | Ground Water         | Ground Water        | Ground Water        | Ground Water     | Ground Water       |  |  |           |              |                 |
| Batch Number                           | 1                    | 1                   | 1                   | 1                | 1                  |  |  | LOD/LOR   | Units        | Method          |
| Date of Receipt                        | 12/10/2022           | 12/10/2022          | 12/10/2022          | 12/10/2022       | 12/10/2022         |  |  |           |              | No.             |
| SVOC MS                                |                      |                     |                     |                  |                    |  |  |           |              |                 |
| Phenols                                |                      |                     |                     |                  | 0                  |  |  |           |              | TH 4 0 / D 4 00 |
| 2-Chlorophenol"                        | <1                   | <1                  | <1                  | <1               | 2                  |  |  | <1        | ug/i         | TM16/PM30       |
| 2-Methylphenol                         | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/i         | TM16/PM30       |
| 2.4-Dichlorophenol <sup>#</sup>        | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| 2.4-Dimethylphenol                     | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 2.4.5-Trichlorophenol <sup>#</sup>     | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| 2,4,6-Trichlorophenol                  | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 4-Chloro-3-methylphenol#               | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| 4-Methylphenol                         | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 4-Nitrophenol                          | <10                  | <10                 | <10                 | <10              | <10                |  |  | <10       | ug/l         | TM16/PM30       |
| Pentachlorophenol                      | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Phenol                                 | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| PAHs                                   |                      |                     |                     |                  |                    |  |  |           |              |                 |
| 2-Chloronaphthalene*                   | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 2-Methylnaphthalene "                  | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Prinalates                             | ~5                   | -5                  | ~5                  | -5               | -5                 |  |  | ~5        |              | TM16/DM20       |
| Butylbenzyl phthalate                  | <1                   | <1                  | <0                  | <1               | <j<br>&lt;1</j<br> |  |  | <1        | ug/l         | TM16/PM30       |
| Di-n-butyl phthalate #                 | <1.5                 | <1.5                | <1.5                | <1.5             | <1.5               |  |  | <1.5      | ug/l         | TM16/PM30       |
| Di-n-Octyl phthalate                   | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Diethyl phthalate #                    | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Dimethyl phthalate                     | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Other SVOCs                            |                      |                     |                     |                  |                    |  |  |           |              |                 |
| 1,2-Dichlorobenzene#                   | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 1,2,4-Trichlorobenzene #               | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 1,3-Dichlorobenzene#                   | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 1,4-Dichlorobenzene <sup>#</sup>       | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 2-Nitroaniline                         | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 2,4-Dinitrotoluene                     | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| 3-Nitroaniline                         | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 4-Bromonhenvinhenviether <sup>#</sup>  | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 4-Chloroaniline                        | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 4-Chlorophenylphenylether#             | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| 4-Nitroaniline                         | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| Azobenzene <sup>#</sup>                | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| Bis(2-chloroethoxy)methane#            | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| Bis(2-chloroethyl)ether#               | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Carbazole <sup>#</sup>                 | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| Dibenzofuran "                         | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | 1 M16/PM30      |
| riexachiorobenzene"                    | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/I         | TM16/PM30       |
| Hexachlorocyclopentodiopo              | ~1                   | ~1                  | ~1                  | ~1               | <1<br>21           |  |  | <1<br>21  | ug/I         | TM16/PM20       |
| Hexachloroethane #                     | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/i         | TM16/PM30       |
| Isophorone <sup>#</sup>                | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ua/l         | TM16/PM30       |
| N-nitrosodi-n-propylamine <sup>#</sup> | <0.5                 | <0.5                | <0.5                | <0.5             | <0.5               |  |  | <0.5      | ug/l         | TM16/PM30       |
| Nitrobenzene <sup>#</sup>              | <1                   | <1                  | <1                  | <1               | <1                 |  |  | <1        | ug/l         | TM16/PM30       |
| Surrogate Recovery 2-Fluorobiphenyl    | 113                  | 104                 | 119                 | 112              | 110                |  |  | <0        | %            | TM16/PM30       |
| Surrogate Recovery p-Terphenyl-d14     | 115                  | 107                 | 119                 | 110              | 110                |  |  | <0        | %            | TM16/PM30       |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      |                     |                     |                  |                    |  |  |           |              |                 |
|  |                      | 1                   | 1                   |                  |                    |  |  |           |              | 1               |

Client Name: Reference: Location: Contact:

Arcadis 10047374 Redcar Andy Smith VOC Report : Liquid

| EMT Job No:                             | 22/16637         |                     |                  |                            |                  |  |  |           |               |              |
|---|------------------|---------------------|------------------|----------------------------|------------------|--|--|-----------|---------------|--------------|
| EMT Sample No.                          | 1-7              | 8-14                | 15-21            | 22-28                      | 29-35            |  |  |           |               |              |
|   | 0400             | 005                 | 005              |                            |                  |  |  |           |               |              |
| Sample ID                               | BHA04S05102      | 02F-<br>BH102D05102 | BH102S05102      | 04MS/BH13S0<br>51022WG1500 | 05MS/BH13D0      |  |  |           |               |              |
|   | 2WG1125          | 2WG1235             | 2WG1400          | 510220031500               | 510220031000     |  |  |           |               |              |
| Depth                                   |                  |                     |                  |                            |                  |  |  | Please se | e attached n  | otes for all |
| COC No / misc                           |                  |                     |                  |                            |                  |  |  | abbrevi   | ations and ad | cronyms      |
| Containers                              | V H HN N P G     | V H HN N P G        | V H HN N P G     | V H HN N P G               | V H HN N P G     |  |  |           |               |              |
| Sample Date                             | 05/10/2022 11:25 | 05/10/2022 11:35    | 05/10/2022 14:00 | 05/10/2022 15:00           | 05/10/2022 16:00 |  |  |           |               |              |
| Sample Type                             | Ground Water     | Ground Water        | Ground Water     | Ground Water               | Ground Water     |  |  |           |               |              |
| Batch Number                            | 1                | 1                   | 1                | 1                          | 1                |  |  | LOD/LOR   | Units         | Method       |
| Date of Receipt                         | 12/10/2022       | 12/10/2022          | 12/10/2022       | 12/10/2022                 | 12/10/2022       |  |  |           | -             | NO.          |
| VOC MS                                  | -                |                     | -                | -                          |                  |  |  | -         |               |              |
| Dichlorodifluoromethane                 | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Methyl Tertiary Butyl Ether"            | <0.1             | <0.1                | <0.1             | <0.1                       | <0.1             |  |  | <0.1      | ug/i          | TM15/PM10    |
| Vinyl Chloride <sup>#</sup>             | <0.1             | <0.1                | <0.1             | <0.1                       | <0.1             |  |  | <0.1      | ug/i          | TM15/PM10    |
| Bromomethane                            | <1               | <1                  | <1               | <1                         | <1               |  |  | <1        | ug/i          | TM15/PM10    |
| Chloroethane <sup>#</sup>               | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Trichlorofluoromethane #                | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 1,1-Dichloroethene (1,1 DCE)#           | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Dichloromethane (DCM) #                 | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| trans-1-2-Dichloroethene #              | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 1,1-Dichloroethane #                    | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| cis-1-2-Dichloroethene #                | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 2,2-Dichloropropane                     | <1               | <1                  | <1               | <1                         | <1               |  |  | <1        | ug/l          | TM15/PM10    |
| Bromochloromethane *                    | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Chloroform "                            | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1,1,1-Trichloroethane                   | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/i          | TM15/PM10    |
| Carbon tetrachloride <sup>#</sup>       | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/i          | TM15/PM10    |
| 1.2-Dichloroethane <sup>#</sup>         | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Benzene <sup>#</sup>                    | <0.5             | <0.5                | <0.5             | <0.5                       | <0.5             |  |  | <0.5      | ug/l          | TM15/PM10    |
| Trichloroethene (TCE)#                  | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 1,2-Dichloropropane <sup>#</sup>        | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Dibromomethane <sup>#</sup>             | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Bromodichloromethane #                  | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| cis-1-3-Dichloropropene                 | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Toluene <sup>#</sup>                    | <5               | <5                  | 10               | <5                         | <5               |  |  | <5        | ug/l          | TM15/PM10    |
| trans-1-3-Dichloropropene               | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1,1,2-I richloroethane "                | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/i          | TM15/PM10    |
| 1 3 Dichloropropano <sup>#</sup>        | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/i          | TM15/PM10    |
| Dibromochloromethane #                  | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1.2-Dibromoethane <sup>#</sup>          | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Chlorobenzene <sup>#</sup>              | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1,1,1,2-Tetrachloroethane#              | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Ethylbenzene <sup>#</sup>               | <1               | <1                  | <1               | <1                         | <1               |  |  | <1        | ug/l          | TM15/PM10    |
| m/p-Xylene <sup>#</sup>                 | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| o-Xylene <sup>#</sup>                   | <1               | <1                  | <1               | <1                         | <1               |  |  | <1        | ug/l          | TM15/PM10    |
| Styrene #                               | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| Bromoform "                             | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1 1 2 2 Totrachloroothano               | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/i          | TM15/PM10    |
| Bromobenzene <sup>#</sup>               | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1.2.3-Trichloropropane <sup>#</sup>     | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Propylbenzene <sup>#</sup>              | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 2-Chlorotoluene #                       | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 1,3,5-Trimethylbenzene <sup>#</sup>     | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 4-Chlorotoluene #                       | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| tert-Butylbenzene#                      | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 1,2,4-Trimethylbenzene <sup>#</sup>     | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| sec-Butylbenzene "                      | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| 4-isopropyiloluene"                     | < 3<br>< 2       | < 3<br>< 2          | < 3<br>< 2       | < 3<br>< 2                 | <.)<br>22        |  |  | <.3<br>23 | ug/l          | TM15/PM10    |
| 1,3-Dichlorobenzene                     | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/I<br>un/I  | TM15/PM10    |
| n-Butvlbenzene <sup>#</sup>             | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ua/l          | TM15/PM10    |
| 1.2-Dichlorobenzene <sup>#</sup>        | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ua/l          | TM15/PM10    |
| 1,2-Dibromo-3-chloropropane             | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1,2,4-Trichlorobenzene                  | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Hexachlorobutadiene                     | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Naphthalene                             | <2               | <2                  | <2               | <2                         | <2               |  |  | <2        | ug/l          | TM15/PM10    |
| 1,2,3-Trichlorobenzene                  | <3               | <3                  | <3               | <3                         | <3               |  |  | <3        | ug/l          | TM15/PM10    |
| Surrogate Recovery Toluene D8           | 100              | 102                 | 104              | 104                        | 108              |  |  | <0        | %             | TM15/PM10    |
| Surrogate Recovery 4-Bromofluorobenzene | 105              | 102                 | 102              | 105                        | 107              |  |  | <0        | %             | [ 1M15/PM10  |

| Client Name: | Arcadis  |
|--------------|----------|
| Reference:   | 10047374 |
| Location:    | Redcar   |

Contact: Andy Smith

| EMT<br>Job<br>No. | Batch | Sample ID | Depth | EMT<br>Sample<br>No. | Analysis  | Reason |
|-------------------|-------|-----------|-------|----------------------|---|--------|
|                   |       |           |       |                      | No deviating sample report results for job 22/16637 |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |
|                   |       |           |       |                      |   |        |

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

## NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

**EMT Job No.:** 22/16637

### SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at  $35^{\circ}C \pm 5^{\circ}C$  unless otherwise stated. Moisture content for CEN Leachate tests are dried at  $105^{\circ}C \pm 5^{\circ}C$ . Ash samples are dried at  $37^{\circ}C \pm 5^{\circ}C$ .

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

### WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

### STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

### **DEVIATING SAMPLES**

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

### SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

### DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

### BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

### NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

### **REPORTS FROM THE SOUTH AFRICA LABORATORY**

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

### **Measurement Uncertainty**

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

### **Customer Provided Information**

Sample ID and depth is information provided by the customer.

| #       | ISO17025 (UKAS Ref No. 4225) accredited - UK.  |
|---------|--|
| SA      | ISO17025 (SANAS Ref No.T0729) accredited - South Africa  |
| В       | Indicates analyte found in associated method blank.  |
| DR      | Dilution required.   |
| М       | MCERTS accredited.   |
| NA      | Not applicable   |
| NAD     | No Asbestos Detected.  |
| ND      | None Detected (usually refers to VOC and/SVOC TICs).   |
| NDP     | No Determination Possible  |
| SS      | Calibrated against a single substance  |
| SV      | Surrogate recovery outside performance criteria. This may be due to a matrix effect.   |
| W       | Results expressed on as received basis.  |
| +       | AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.                           |
| >>      | Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher. |
| *       | Analysis subcontracted to an Element Materials Technology approved laboratory.   |
| AD      | Samples are dried at 35°C ±5°C   |
| со      | Suspected carry over   |
| LOD/LOR | Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS  |
| ME      | Matrix Effect  |
| NFD     | No Fibres Detected   |
| BS      | AQC Sample   |
| LB      | Blank Sample   |
| N       | Client Sample  |
| ТВ      | Trip Blank Sample  |
| OC      | Outside Calibration Range  |
| AA      | x5 Dilution  |

### HWOL ACRONYMS AND OPERATORS USED

| HS    | Headspace Analysis.  |
|-------|--|
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent. |
| CU    | Clean-up - e.g. by florisil, silica gel.                             |
| 1D    | GC - Single coil gas chromatography.                                 |
| Total | Aliphatics & Aromatics.  |
| AL    | Aliphatics only.   |
| AR    | Aromatics only.  |
| 2D    | GC-GC - Double coil gas chromatography.                              |
| #1    | EH_Total but with humics mathematically subtracted                   |
| #2    | EU_Total but with fatty acids mathematically subtracted              |
| _     | Operator - underscore to separate acronyms (exception for +).        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total   |
| MS    | Mass Spectrometry.   |

| Test Method No. | Description   | Prep Method<br>No. (if<br>appropriate) | Description  | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|---|--|--|----------------------------------|------------------------------|--|------------------------------------|
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.  | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.  | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  | Yes                              |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present.  | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex. | Yes                              |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details   | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details  | Yes                              |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic<br>Compounds (VOCs) by Headspace GC-MS.  | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   |                                  |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic<br>Compounds (VOCs) by Headspace GC-MS.  | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   | Yes                              |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.  | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.  | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  | Yes                              |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.   | PM0                                    | No preparation is required.  | Yes                              |                              |  |                                    |
| TM36            | Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics<br>(GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-<br>elutes with 3-methylpentane if present and therefore can give a false positive. Positive<br>MTBE results will be re-run using GC-MS to double check, when requested. | PM12                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   | Yes                              |                              |  |                                    |

EMT Job No: 22/16637

| Test Method No. | Description   | Prep Method<br>No. (if<br>appropriate) | Description                 | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|---|--|-----------------------------|----------------------------------|------------------------------|--|------------------------------------|
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I | PM0                                    | No preparation is required. |                                  |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I | PM0                                    | No preparation is required. | Yes                              |                              |  |                                    |
| TM89            | Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection<br>Analyser. Where WAD cyanides are required a Ligand displacement step is carried out<br>before analysis.  | PM0                                    | No preparation is required. | Yes                              |                              |  |                                    |
| TM107           | Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser  | PM0                                    | No preparation is required. |                                  |                              |  |                                    |
|                 |   |  |                             |                                  |                              |  |                                    |
|                 |   |  |                             |                                  |                              |  |                                    |
|                 |   |  |                             |                                  |                              |  |                                    |
|                 |   |  |                             |                                  |                              |  |                                    |
|                 |   |  |                             |                                  |                              |  |                                    |
|                 |   |  |                             |                                  |                              |  |                                    |

Method Code Appendix



Element Materials Technology Unit 3 Deeside Point Zone 3 Deeside Industrial Park Deeside CH5 2UA P: +44 (0) 1244 833780 F: +44 (0) 1244 833781

W: www.element.com



Five samples were received for analysis on 8th November, 2022 of which five were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

Paul Boden BSc Senior Project Manager

Please include all sections of this report if it is reproduced

| Client Name:                           | Arcadis          |                     |                     |                  |                  |  | Report :                             | Liquid     |              |                  |              |              |            |
|--|------------------|---------------------|---------------------|------------------|------------------|--|--------------------------------------|------------|--------------|------------------|--------------|--------------|------------|
| Reference:                             | 10035117         | 7                   |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
| Location:                              | Redcar L         | WoW                 |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
| Contact:                               | Olivia Gra       | ace                 |                     |                  |                  |  | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bottl     | e, P=plastic | bottle       |            |
| EMT Job No:                            | 22/18344         |                     |                     |                  |                  |  | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN0 <sub>3</sub> |              |              |            |
| EMT Sample No.                         | 1-11             | 12-22               | 23-33               | 34-44            | 45-55            |  |                                      |            |              |                  |              |              |            |
| Sample ID                              | MS-BH13S         | F-BH101D            | F-BH101M            | F-BH102D         | F-BH102M         |  |                                      |            |              |                  |              |              |            |
| Depth                                  | 7.00             | 25.00               | 8.00                | 28.00            | 10.00            |  |                                      |            |              |                  | Disesses     |              |            |
| COC No / misc                          |                  |                     |                     |                  |                  |  |                                      |            |              |                  | abbrevia     | ations and a | cronyms    |
| Out in a                               |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
| Containers                             | V H HN N P G     | V H HN N P G        | VHHNNPG             | V H HN N P G     | V H HN N P G     |  |                                      |            |              |                  |              |              |            |
| Sample Date                            | 09/11/2022 13:30 | 09/11/2022 11:30    | 09/11/2022 10:30    | 09/11/2022 16:30 | 09/11/2022 15:15 |  |                                      |            |              |                  |              |              |            |
| Sample Type                            | Ground Water     | Ground Water        | Ground Water        | Ground Water     | Ground Water     |  |                                      |            |              |                  |              |              |            |
| Batch Number                           | 1                | 1                   | 1                   | 1                | 1                |  |                                      |            |              |                  | LOD/LOR      | Units        | Method     |
| Date of Receipt                        | 08/11/2022       | 08/11/2022          | 08/11/2022          | 08/11/2022       | 08/11/2022       |  |                                      |            |              |                  | LODILOIT     | onno         | No.        |
| Dissolved Aluminium <sup>#</sup>       | -                | 356.8               | 556.7 <sub>AB</sub> | -                | 38.4             |  |                                      |            |              |                  | <1.5         | ug/l         | TM170/PM14 |
| Dissolved Arsenic <sup>#</sup>         | NDP              | 5.8                 | 4.9                 | NDP              | 5.1              |  |                                      |            |              |                  | <0.9         | ug/l         | TM170/PM14 |
| Dissolved Boron <sup>#</sup>           | NDP              | 114                 | 111                 | NDP              | 339              |  |                                      |            |              |                  | <12          | ug/l         | TM170/PM14 |
| Dissolved Cadmium <sup>#</sup>         | NDP              | 0.07                | 0.08                | NDP              | 0.07             |  |                                      |            |              |                  | <0.03        | ug/l         | TM170/PM14 |
| Total Dissolved Chromium <sup>#</sup>  | NDP              | 1.3                 | 0.5                 | NDP              | 0.7              |  |                                      |            |              |                  | <0.2         | ug/l         | TM170/PM14 |
| Dissolved Copper <sup>#</sup>          | NDP              | <1                  | <1                  | NDP              | <1               |  |                                      |            |              |                  | <1           | ug/l         | TM170/PM14 |
| Total Dissolved Iron #                 | NDP              | 26.2                | 24.6                | NDP              | 11.1             |  |                                      |            |              |                  | <4.7         | ug/l         | TM170/PM14 |
| Dissolved Lead #                       | NDP              | <0.4                | <0.4                | NDP              | <0.4             |  |                                      |            |              |                  | <0.4         | ug/l         | TM170/PM14 |
| Dissolved Manganese #                  | NDP              | <1.5                | <1.5                | NDP              | <1.5             |  |                                      |            |              |                  | <1.5         | ua/l         | TM170/PM14 |
| Dissolved Molvbdenum <sup>#</sup>      | -                | 227.0               | 260.5               | -                | 225.9            |  |                                      |            |              |                  | <0.2         | ua/l         | TM170/PM14 |
| Dissolved Nickel <sup>#</sup>          | NDP              | 1.4                 | 1.4                 | NDP              | 1.5              |  |                                      |            |              |                  | <0.2         | ua/l         | TM170/PM14 |
| Dissolved Zinc <sup>#</sup>            | NDP              | 1.6                 | 1.5                 | NDP              | <1.5             |  |                                      |            |              |                  | <1.5         | ua/l         | TM170/PM14 |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              | 5            |            |
| Dissolved Aluminium <sup>#</sup>       | 2.7              | -                   | -                   | 92.3             | -                |  |                                      |            |              |                  | <1.5         | ug/l         | TM30/PM14  |
| Dissolved Arsenic <sup>#</sup>         | 8.4              | -                   | -                   | 1.9              | -                |  |                                      |            |              |                  | <0.9         | ug/l         | TM30/PM14  |
| Dissolved Boron                        | 803              | -                   | -                   | 168              | -                |  |                                      |            |              |                  | <12          | ug/l         | TM30/PM14  |
| Dissolved Cadmium <sup>#</sup>         | <0.03            | -                   | -                   | < 0.03           | -                |  |                                      |            |              |                  | <0.03        | ug/l         | TM30/PM14  |
| Dissolved Calcium <sup>#</sup>         | 79.8             | 317.4 <sub>AB</sub> | 323.2AB             | 537.5AB          | 182.1            |  |                                      |            |              |                  | <0.2         | mg/l         | TM30/PM14  |
| Total Dissolved Chromium <sup>#</sup>  | <0.2             | -                   | -                   | 0.9              | -                |  |                                      |            |              |                  | <0.2         | ug/l         | TM30/PM14  |
| Dissolved Copper <sup>#</sup>          | <3               | -                   | -                   | <3               | -                |  |                                      |            |              |                  | <3           | ua/l         | TM30/PM14  |
| Total Dissolved Iron <sup>#</sup>      | 835.5            | -                   | -                   | 20.9             | -                |  |                                      |            |              |                  | <4.7         | ua/l         | TM30/PM14  |
| Dissolved Lead #                       | <0.4             | -                   | -                   | <0.4             | -                |  |                                      |            |              |                  | <0.4         | ua/l         | TM30/PM14  |
| Dissolved Magnesium <sup>#</sup>       | 59.4             | 0.1                 | 0.2                 | <0.1             | 0.3              |  |                                      |            |              |                  | <0.1         | ma/l         | TM30/PM14  |
| Dissolved Manganese #                  | 91.4             | _                   |                     | <1.5             | -                |  |                                      |            |              |                  | <1.5         | ug/l         | TM30/PM14  |
| Dissolved Molybdenum <sup>#</sup>      | 11.0             | -                   | -                   | 248.0            | -                |  |                                      |            |              |                  | <0.2         | ua/l         | TM30/PM14  |
| Dissolved Nickel <sup>#</sup>          | 0.2              | -                   | -                   | 3.9              | -                |  |                                      |            |              |                  | <0.2         | ua/l         | TM30/PM14  |
| Dissolved Potassium#                   | 100.2            | 40.2                | 30.9                | 88.4             | 53.7             |  |                                      |            |              |                  | <0.1         | ma/l         | TM30/PM14  |
| Dissolved Silicon                      | 3164             | 5725                | 5267                | 896              | 5219             |  |                                      |            |              |                  | <100         | ug/l         | TM30/PM14  |
| Dissolved Sodium <sup>#</sup>          | 1018.540         | 202.9               | 155.5               | 903.948          | 132.4            |  |                                      |            |              |                  | <0.1         | mg/l         | TM30/PM14  |
| Dissolved Zinc#                        | <1.5             | -                   | -                   | <1.5             | -                |  |                                      |            |              |                  | <1.5         | ug/l         | TM30/PM14  |
| Mercury Dissolved by CVAF <sup>#</sup> | <0.01            | <0.01               | <0.01               | 0.34             | <0.01            |  |                                      |            |              |                  | <0.01        | g.           | TM61/PM0   |
| Total Dissolved Sulphur as S           | 130565           | 167646              | 120440              | 113135           | 156417.0         |  |                                      |            |              |                  | <10          | ug/l         | TM30/PM14  |
|  | TOUCOUAC         | TOTOTOAC            | 120440AC            | TICIOCAC         | TOOTTAC          |  |                                      |            |              |                  | -10          | ugn          |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  |                     |                     |                  |                  |  |                                      |            |              |                  |              |              |            |
|  |                  | 1                   | 1                   | 1                | 1                |  |                                      |            |              |                  |              |              | 1          |

| Client Name:<br>Reference:              | Arcadis<br>10035117 | ,                |                  |                  |                  | Report :                             | Liquid     |              |                  |               |              |              |
|---|---------------------|------------------|------------------|------------------|------------------|--------------------------------------|------------|--------------|------------------|---------------|--------------|--------------|
| Location:                               | Redcar L            | WoW              |                  |                  |                  |                                      |            |              |                  |               |              |              |
| Contact:                                | Olivia Gra          | ace              |                  |                  |                  | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bottl     | le, P=plastic | bottle       |              |
| EMT Job No:                             | 22/18344            |                  |                  |                  |                  | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN0 <sub>3</sub> | _             |              |              |
| EMT Sample No.                          | 1-11                | 12-22            | 23-33            | 34-44            | 45-55            |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
| Sample ID                               | MS-BH13S            | F-BH101D         | F-BH101M         | F-BH102D         | F-BH102M         |                                      |            |              |                  |               |              |              |
| Depth                                   | 7.00                | 25.00            | 8.00             | 28.00            | 10.00            |                                      |            |              |                  | Please se     | o ottochod n | otos for all |
| COC No / misc                           |                     |                  |                  |                  |                  |                                      |            |              |                  | abbrevi       | ations and a | cronyms      |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
| Containers                              | V H HN N P G        | V H HN N P G     | VHHNNPG          | V H HN N P G     | V H HN N P G     |                                      |            |              |                  |               |              |              |
| Sample Date                             | 09/11/2022 13:30    | 09/11/2022 11:30 | 09/11/2022 10:30 | 09/11/2022 16:30 | 09/11/2022 15:15 |                                      |            |              |                  |               |              |              |
| Sample Type                             | Ground Water        | Ground Water     | Ground Water     | Ground Water     | Ground Water     |                                      |            |              |                  |               |              |              |
| Batch Number                            | 1                   | 1                | 1                | 1                | 1                |                                      |            |              |                  |               |              | Method       |
| Date of Receipt                         | 08/11/2022          | 08/11/2022       | 08/11/2022       | 08/11/2022       | 08/11/2022       |                                      |            |              |                  | LOD/LOR       | Units        | No.          |
| PAH MS                                  |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
| Nanhthalene <sup>#</sup>                | 0.1                 | 0.1              | <0.1             | <0.1             | <0.1             |                                      |            |              |                  | <0.1          | ua/l         | TM4/PM30     |
| Acenanbthylene #                        | <0.005              | <0.005           | <0.005           | <0.005           | <0.005           |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Aconophthono <sup>#</sup>               | <0.000              | <0.005           | 0.014            | 0.010            | 0.010            |                                      |            |              |                  | <0.000        | ug/l         | TM4/PM30     |
| Eluorono #                              | 0.005               | <0.005           | 0.012            | <0.005           | 0.007            |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Phononthrono <sup>#</sup>               | <0.005              | <0.005           | <0.005           | <0.005           | <0.007           |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Anthrasons <sup>#</sup>                 | <0.005              | <0.005           | <0.005           | <0.005           | <0.005           |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Anunacene                               | 0.005               | <0.003           | <0.003           | <0.003           | <0.003           |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Putorantinerie                          | 0.000               | 0.006            | 0.006            | 0.017            | 0.050            |                                      |            |              |                  | <0.005        | ug/l         | TM4/DM30     |
| Ponzo(a)anthracana <sup>#</sup>         | <0.005              | <0.007           | <0.007           | 0.015            | 0.048            |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Christian #                             | <0.005              | <0.005           | <0.005           | 0.000            | 0.020            |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Chrysene<br>Bonze/bk/fluoronthone#      | <0.003              | <0.003           | <0.003           | 0.016            | 0.024            |                                      |            |              |                  | <0.003        | ug/l         | TM4/PM30     |
| Benzo(bk)iluorantinene                  | <0.000              | <0.000           | <0.000           | <0.005           | <0.005           |                                      |            |              |                  | <0.000        | ug/l         | TM4/PM30     |
| Indono(123cd)pyrono#                    | <0.005              | <0.005           | <0.005           | 0.007            | 0.013            |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Dibenze(ab)enthreenee#                  | <0.005              | <0.005           | <0.005           | <0.007           | <0.005           |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
| Bonzo(ahi)pon/ono <sup>#</sup>          | <0.000              | <0.005           | <0.005           | 0.000            | 0.013            |                                      |            |              |                  | <0.005        | ug/l         | TM4/PM30     |
|   | <0.173              | <0.173           | <0.173           | <0.000           | 0.238            |                                      |            |              |                  | <0.173        | ug/l         | TM4/PM30     |
| Benzo(h)fluoranthene                    | <0.008              | <0.008           | <0.008           | 0.012            | 0.034            |                                      |            |              |                  | <0.008        | ug/l         | TM4/PM30     |
| Benzo(k)fluoranthene                    | <0.008              | <0.008           | <0.008           | <0.008           | 0.004            |                                      |            |              |                  | <0.008        | ug/l         | TM4/PM30     |
| PAH Surrogate % Recovery                | 88                  | 81               | 84               | 79               | 89               |                                      |            |              |                  | <0            | %            | TM4/PM30     |
|   | 00                  | 01               | 04               | 10               | 00               |                                      |            |              |                  | -0            | ,,,          |              |
| VOC TICs                                | ND                  | ND               | ND               | See Attached     | ND               |                                      |            |              |                  |               | None         | TM15/PM10    |
| Methyl Tertiary Butyl Ether #           | <0.1                | <0.1             | <0.1             | <0.1             | <0.1             |                                      |            |              |                  | <0.1          | ug/l         | TM15/PM10    |
| Benzene <sup>#</sup>                    | <0.5                | <0.5             | <0.5             | <0.5             | <0.5             |                                      |            |              |                  | <0.5          | ug/l         | TM15/PM10    |
| Toluene <sup>#</sup>                    | <5                  | <5               | <5               | <5               | <5               |                                      |            |              |                  | <5            | ug/l         | TM15/PM10    |
| Ethylbenzene #                          | <1                  | <1               | <1               | <1               | <1               |                                      |            |              |                  | <1            | ug/l         | TM15/PM10    |
| m/p-Xylene #                            | <2                  | <2               | <2               | <2               | <2               |                                      |            |              |                  | <2            | ug/l         | TM15/PM10    |
| o-Xylene <sup>#</sup>                   | <1                  | <1               | <1               | <1               | <1               |                                      |            |              |                  | <1            | ug/l         | TM15/PM10    |
| Surrogate Recovery Toluene D8           | 87                  | 92               | 95               | 100              | 94               |                                      |            |              |                  | <0            | %            | TM15/PM10    |
| Surrogate Recovery 4-Bromofluorobenzene | 92                  | 94               | 97               | 97               | 95               |                                      |            |              |                  | <0            | %            | TM15/PM10    |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
| SVOC TICs                               | ND                  | ND               | ND               | See Attached     | ND               |                                      |            |              |                  |               | None         | TM16/PM30    |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |
|   |                     |                  |                  |                  |                  |                                      |            |              |                  |               |              |              |

| Client Name:<br>Reference:<br>Location: | Arcadis<br>10035117<br>Redcar L\ | ,<br>NoW         |                  |                  |                  | Report :            | Liquid     |              |                  |              |              |                         |
|---|----------------------------------|------------------|------------------|------------------|------------------|---------------------|------------|--------------|------------------|--------------|--------------|-------------------------|
| Contact:                                | Olivia Gra                       | ice              |                  |                  |                  | Liquids/pr          | oducts: V= | 40ml vial, G | =glass bottl     | e, P=plastic | bottle       |                         |
| EMT Job No:                             | 22/18344                         |                  |                  |                  |                  | <br>$H=H_2SO_4$ , A | Z=ZnAc, N= | NaOH, HN=    | HN0 <sub>3</sub> |              |              |                         |
| EMT Sample No.                          | 1-11                             | 12-22            | 23-33            | 34-44            | 45-55            |                     |            |              |                  |              |              |                         |
| Sample ID                               | MS-BH13S                         | F-BH101D         | F-BH101M         | F-BH102D         | F-BH102M         |                     |            |              |                  |              |              |                         |
| Depth                                   | 7.00                             | 25.00            | 8.00             | 28.00            | 10.00            |                     |            |              |                  | Please se    | e attached n | otes for all            |
| COC No / misc                           |                                  |                  |                  |                  |                  |                     |            |              |                  | abbrevi      | ations and a | cronyms                 |
| Containers                              | V H HN N P G                     | V H HN N P G     | V H HN N P G     | V H HN N P G     | V H HN N P G     |                     |            |              |                  |              |              |                         |
| Sample Date                             | 09/11/2022 13:30                 | 09/11/2022 11:30 | 09/11/2022 10:30 | 09/11/2022 16:30 | 09/11/2022 15:15 |                     |            |              |                  |              |              |                         |
| Sample Tune                             | Cround Water                     | Cround Water     | Cround Water     | Cround Water     | Cround Water     |                     |            |              |                  |              |              |                         |
| Sample Type                             | Ground water                     | Ground water     | Ground water     | Ground Water     | Ground water     |                     |            |              |                  |              |              |                         |
| Batch Number                            | 1                                | 1                | 1                | 1                | 1                |                     |            |              |                  | LOD/LOR      | Units        | Method                  |
| Date of Receipt                         | 08/11/2022                       | 08/11/2022       | 08/11/2022       | 08/11/2022       | 08/11/2022       |                     |            |              |                  |              |              | NO.                     |
| TPH CWG                                 |                                  |                  |                  |                  |                  |                     |            |              |                  |              |              |                         |
| Aliphatics                              | 10                               | 10               | 10               |                  |                  |                     |            |              |                  | 10           |              |                         |
| >C5-C6 *                                | <10                              | 13               | <10              | 71               | 24               |                     |            |              |                  | <10          | ug/l         | TM36/PM12               |
| >C6-C8"                                 | <10                              | 104              | 66               | 087              | 57<br>77         |                     |            |              |                  | <10          | ug/l         | TM36/PM12               |
| >C10-C12#                               | <5                               | <5               | <5               | <5               | <5               |                     |            |              |                  | <5           | ug/l         | TM5/PM16/PM30           |
| >C12-C16 <sup>#</sup>                   | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| >C16-C21#                               | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| >C21-C35#                               | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| >C35-C44                                | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| Total aliphatics C5-35 <sup>#</sup>     | <10                              | 147              | 81               | 1253             | 158              |                     |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM30 |
| Total aliphatics C5-44                  | <10                              | 147              | 81               | 1253             | 158              |                     |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM30 |
| Aromatics                               | .10                              | .40              | .10              | .10              |                  |                     |            |              |                  |              |              | TN00/DN440              |
| >C5-EC7"                                | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/I         | TM36/PM12               |
| >EC7-EC8                                | <10                              | 13               | 14               | 68               | 14               |                     |            |              |                  | <10          | ug/l         | TM36/PM12               |
| >EC10-EC12 <sup>#</sup>                 | <5                               | <5               | <5               | <5               | <5               |                     |            |              |                  | <5           | ug/l         | TM5/PM16/PM30           |
| >EC12-EC16#                             | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| >EC16-EC21#                             | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| >EC21-EC35 <sup>#</sup>                 | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| >EC35-EC44                              | <10                              | <10              | <10              | <10              | <10              |                     |            |              |                  | <10          | ug/l         | TM5/PM16/PM30           |
| Total aromatics C5-35 <sup>#</sup>      | <10                              | 13               | 14               | 68               | 14               |                     |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM30 |
| Total aliphatics and aromatics(C5-35)#  | <10                              | 160              | 95               | 1321             | 172              |                     |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM30 |
| Total alionatics and aromatics(C5-44)   | <10                              | 160              | 14<br>95         | 1321             | 14               |                     |            |              |                  | <10          | ug/l         | TM5/TM56/PM12/PM16/PM30 |
|   | -10                              | 100              |                  | 1921             |                  |                     |            |              |                  | -10          | agn          |                         |
| Resorcinol                              | <0.01                            | <0.01            | <0.01            | <0.01            | <0.01            |                     |            |              |                  | <0.01        | mg/l         | TM26/PM0                |
| Catechol                                | <0.01                            | <0.01            | <0.01            | <0.01            | <0.01            |                     |            |              |                  | <0.01        | mg/l         | TM26/PM0                |
| Phenol <sup>#</sup>                     | <0.01                            | <0.01            | <0.01            | <0.01            | <0.01            |                     |            |              |                  | <0.01        | mg/l         | TM26/PM0                |
| m/p-cresol                              | <0.02                            | <0.02            | <0.02            | 0.04             | <0.02            |                     |            |              |                  | <0.02        | mg/l         | TM26/PM0                |
| o-cresol                                | <0.01                            | <0.01            | <0.01            | 0.02             | <0.01            |                     |            |              |                  | <0.01        | mg/l         | TM26/PM0                |
| Total cresols <sup>#</sup>              | <0.03                            | <0.03            | <0.03            | 0.06             | <0.03            |                     |            |              |                  | <0.03        | mg/l         | TM26/PM0                |
| Xylenols <sup>#</sup>                   | <0.06                            | < 0.06           | < 0.06           | < 0.06           | <0.06            |                     |            |              |                  | <0.06        | mg/l         | TM26/PM0                |
| 1-naphthol                              | <0.01                            | <0.01            | <0.01            | <0.01            | <0.01            |                     |            |              |                  | <0.01        | mg/i         | TM26/PM0                |
| 2-isopropylphenol                       | <0.01                            | <0.01            | <0.01            | <0.01            | <0.01            |                     |            |              |                  | <0.01        | ma/l         | TM26/PM0                |
| Total Speciated Phenols HPLC            | <0.1                             | <0.1             | <0.1             | <0.1             | <0.1             |                     |            |              |                  | <0.1         | mg/l         | TM26/PM0                |
|   |                                  |                  |                  |                  |                  |                     |            |              |                  |              | <u> </u>     |                         |
| Sulphate as SO4 <sup>#</sup>            | 366.6                            | 480.4            | 359.3            | 343.4            | 463.2            |                     |            |              |                  | <0.5         | mg/l         | TM38/PM0                |
| Chloride <sup>#</sup>                   | 1346.1                           | 342.5            | 262.7            | 982.0            | 144.8            |                     |            |              |                  | <0.3         | mg/l         | TM38/PM0                |
| Nitrate as NO3 <sup>#</sup>             | <0.2                             | <0.2             | <0.2             | <0.2             | <0.2             |                     |            |              |                  | <0.2         | mg/l         | TM38/PM0                |
| Nitrite as NO2 <sup>#</sup>             | 0.19                             | 0.03             | 0.08             | 0.12             | <0.02            |                     |            |              |                  | <0.02        | mg/l         | TM38/PM0                |
| Ortho Phosphate as PO4 *                | 0.06                             | <0.06            | <0.06            | <0.06            | <0.06            |                     |            |              |                  | <0.06        | mg/l         | TM38/PM0                |
|   | 1                                | 1                | 1                | 1                | 1                |                     | 1          |              | 1                | 1            |              | 1                       |

| Client Name:<br>Reference:            | Arcadis<br>10035117 | ,                |                  |                     |                     | Report : | Liquid                  |                          |                        |              |              |              |
|---------------------------------------|---------------------|------------------|------------------|---------------------|---------------------|----------|-------------------------|--------------------------|------------------------|--------------|--------------|--------------|
| Location:                             | Redcar L            | NoW              |                  |                     |                     |          | - d                     | 10                       |                        | - Dlti-      | h - 441 -    |              |
| Contact:                              | Olivia Gra          | ice              |                  |                     |                     | H=H_SO   | oducts: V=<br>7=7nAc N= | 40ml vial, G<br>NaOH_HN= | i=glass bottl<br>:HNΩ₀ | e, P=plastic | bottle       |              |
|                                       | 22,10011            |                  |                  |                     |                     |          |                         |                          |                        | 1            |              |              |
| EMT Sample No.                        | 1-11                | 12-22            | 23-33            | 34-44               | 45-55               |          |                         |                          |                        |              |              |              |
| Sample ID                             | MS-BH13S            | F-BH101D         | F-BH101M         | F-BH102D            | F-BH102M            |          |                         |                          |                        |              |              |              |
| Depth                                 | 7.00                | 25.00            | 8.00             | 28.00               | 10.00               |          |                         |                          |                        | Please se    | e attached n | otes for all |
| COC No / misc                         |                     |                  |                  |                     |                     |          |                         |                          |                        | abbrevi      | ations and a | cronyms      |
| Containers                            |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
| Containers                            | VIIIININFG          | VIIIINNEG        | VIIIINNEG        | VIIIININEG          | VIIIININFO          |          |                         |                          |                        |              |              |              |
| Sample Date                           | 09/11/2022 13:30    | 09/11/2022 11:30 | 09/11/2022 10:30 | 09/11/2022 16:30    | 09/11/2022 15:15    |          |                         |                          |                        |              |              |              |
| Sample Type                           | Ground Water        | Ground Water     | Ground Water     | Ground Water        | Ground Water        |          |                         |                          |                        |              |              | 1            |
| Batch Number                          | 1                   | 1                | 1                | 1                   | 1                   |          |                         |                          |                        | LOD/LOR      | Units        | Method       |
| Date of Receipt                       | 08/11/2022          | 08/11/2022       | 08/11/2022       | 08/11/2022          | 08/11/2022          |          |                         |                          |                        |              |              | NO.          |
| Free Cyanide                          | 0.019               | 0.003            | 0.008            | 0.008 <sub>AB</sub> | 0.033 <sub>AC</sub> |          |                         |                          |                        | <0.001       | mg/l         | TM89/PM0     |
| Total Cyanide                         | 0.052               | 0.017            | 0.015            | 0.023 <sub>AB</sub> | 0.064 <sub>AC</sub> |          |                         |                          |                        | <0.001       | mg/l         | TM89/PM0     |
| Complex Cyanide                       | 0.033               | 0.014            | 0.007            | 0.015 <sub>AB</sub> | 0.031 <sub>AC</sub> |          |                         |                          |                        | <0.001       | mg/l         | TM89/PM0     |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
| Ammoniacal Nitrogen as N <sup>#</sup> | 5.00                | 2.02             | 1.70             | 1.48                | 0.07                |          |                         |                          |                        | <0.03        | mg/l         | TM38/PM0     |
|                                       | 470                 | (70              |                  |                     |                     |          |                         |                          |                        |              |              |              |
| Total Alkalinity as CaCO3"            | 170                 | 172              | 198              | 1118                | 142                 |          |                         |                          |                        | <1           | mg/i         | TM75/PM0     |
| Sulphide                              | <0.01               | < 0.01           | <0.01            | 0.02                | <0.01               |          |                         |                          |                        | <0.01        | ma/l         | TM107/PM0    |
| Thiocyanate                           | 0.07                | 0.07             | 0.02             | 0.04                | 0.07                |          |                         |                          |                        | <0.02        | mg/l         | TM107/PM0    |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
| Dissolved Organic Carbon <sup>#</sup> | 5                   | 107              | 67               | 699                 | 67                  |          |                         |                          |                        | <2           | mg/l         | TM60/PM0     |
| Dissolved Inorganic Carbon #          | 38                  | <2               | <2               | <2                  | <2                  |          |                         |                          |                        | <2           | mg/l         | TM60/PM0     |
| рН *                                  | 8.05                | 11.55            | 11.73            | 12.41               | 11.44               |          |                         |                          |                        | <0.01        | pH units     | TM73/PM0     |
| Total Suspended Solids #              | <10                 | 82               | 41               | 21                  | 58                  |          |                         |                          |                        | <10          | mg/l         | TM37/PM0     |
| Total Cations                         | 55.73               | 25.70            | 23.70            | 68.40               | 16.24               |          |                         |                          |                        | <0.00        | mmolc/l      | TM30/PM14    |
| Total Anions                          | 49.00               | 23.10            | 18.85            | 57.20               | 16.57               |          |                         |                          |                        | <0.00        | mmolc/l      | TM0/PM0      |
| % Cation Excess                       | 6.43                | 5.33             | 11.40            | 8.92                | -1.01               |          |                         |                          |                        |              | %            | TM0/PM0      |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |
|                                       |                     |                  |                  |                     |                     |          |                         |                          |                        |              |              |              |

Client Name: Reference: Location: Contact: EMT Job No: Arcadis 10035117 Redcar LWoW Olivia Grace 22/18344

SVOC Report : Liquid

| EMT Sample No.  | 1-11             | 12-22            | 23-33            | 34-44            | 45-55            |  |  |                           |                                |                         |
|---|------------------|------------------|------------------|------------------|------------------|--|--|---------------------------|--------------------------------|-------------------------|
|   |                  | ĺ                |                  |                  |                  |  |  |                           |                                |                         |
| Sample ID   | MS-BH13S         | F-BH101D         | F-BH101M         | F-BH102D         | F-BH102M         |  |  |                           |                                |                         |
| Durith  | 7.00             | 05.00            | 0.00             | 00.00            | 10.00            |  |  | <br>                      |                                |                         |
| Depth<br>COC No / misc                                | 7.00             | 25.00            | 8.00             | 28.00            | 10.00            |  |  | <br>Please se<br>abbrevia | e attached no<br>ations and ac | otes for all<br>cronvms |
| Containers  | V H HN N P G     |  |  | <br>                      |                                |                         |
| Sample Date   | 09/11/2022 13:30 | 09/11/2022 11:30 | 09/11/2022 10:30 | 09/11/2022 16:30 | 09/11/2022 15:15 |  |  |                           |                                |                         |
| Sample Type   | Ground Water     |  |  |                           |                                |                         |
| Batch Number  | 1                | 1                | 1                | 1                | 1                |  |  | LOD/LOR                   | Units                          | Method                  |
| Date of Receipt                                       | 08/11/2022       | 08/11/2022       | 08/11/2022       | 08/11/2022       | 08/11/2022       |  |  | LOBILOIT                  | onno                           | No.                     |
| SVOC MS   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
| 2-Chlorophenol <sup>#</sup>                           | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ua/l                           | TM16/PM30               |
| 2-Methylphenol <sup>#</sup>                           | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| 2-Nitrophenol   | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| 2,4-Dichlorophenol <sup>#</sup>                       | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| 2,4-Dimethylphenol                                    | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 2,4,5-Trichlorophenol <sup>#</sup>                    | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| 2,4,6-Trichlorophenol                                 | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 4-Chioro-3-methylphenol                               | <0.5             | <0.5<br><1       | <0.5             | <0.5<br><1       | <0.5             |  |  | <0.5<br><1                | ug/i                           | TM16/PM30               |
| 4-Nitrophenol   | <10              | <10              | <10              | <10              | <10              |  |  | <10                       | ug/l                           | TM16/PM30               |
| Pentachlorophenol                                     | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Phenol  | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| PAHs  |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
| 2-Chloronaphthalene#                                  | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 2-Methylnaphthalene *                                 | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Primalates<br>Bis(2-ethylbeyyl) phthalate             | <5               | <5               | <5               | <5               | <5               |  |  | <5                        | ua/l                           | TM16/PM30               |
| Butvlbenzvl phthalate                                 | <1               | <5<br><1         | <1               | <5<br><1         | <1               |  |  | <br><1                    | ug/i                           | TM16/PM30               |
| Di-n-butyl phthalate #                                | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             |  |  | <1.5                      | ug/l                           | TM16/PM30               |
| Di-n-Octyl phthalate                                  | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Diethyl phthalate <sup>#</sup>                        | <1               | <1*              | <1+              | <1*              | <1+              |  |  | <1                        | ug/l                           | TM16/PM30               |
| Dimethyl phthalate                                    | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Other SVOCs   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
| 1,2-Dichlorobenzene *                                 | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 1,2,4- Inchlorobenzene                                | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/i                           | TM16/PM30               |
| 1,4-Dichlorobenzene <sup>#</sup>                      | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 2-Nitroaniline  | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 2,4-Dinitrotoluene <sup>#</sup>                       | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| 2,6-Dinitrotoluene                                    | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 3-Nitroaniline  | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 4-Bromophenylphenylether"<br>4-Chloroaniline          | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/i                           | TM16/PM30               |
| 4-Chlorophenvlphenvlether#                            | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| 4-Nitroaniline  | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| Azobenzene <sup>#</sup>                               | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| Bis(2-chloroethoxy)methane #                          | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| Bis(2-chloroethyl)ether#                              | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Carbazole *   | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| Dipenzoluran<br>Hexachlorobenzene <sup>#</sup>        | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/i                           | TM16/PM30               |
| Hexachlorobutadiene #                                 | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Hexachlorocyclopentadiene                             | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Hexachloroethane #                                    | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Isophorone <sup>#</sup>                               | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| N-nitrosodi-n-propylamine <sup>#</sup>                | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5                      | ug/l                           | TM16/PM30               |
| Nitrobenzene "<br>Surrogate Recovery 2-Eluorobinhenyl | <1               | <1               | <1               | <1               | <1               |  |  | <1                        | ug/l                           | TM16/PM30               |
| Surrogate Recovery p-Terphenyl-d14                    | 125              | 145 <b>SV</b>    | 150 <b>SV</b>    | 146 <b>SV</b>    | 142 <b>SV</b>    |  |  | <br><0                    | %                              | TM16/PM30               |
|   | .20              | 145              | 150              | 140              | 142              |  |  | Ū                         |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  |                  |                  |                  |                  |  |  |                           |                                |                         |
|   |                  | 1                |                  |                  |                  |  |  |                           |                                |                         |

Client Name: Reference: Location: Contact: EMT Job No: Arcadis 10035117 Redcar LWoW Olivia Grace 22/18344

VOC Report : Liquid

| EMT Sample No.   | 1-11             | 12-22            | 23-33            | 34-44            | 45-55            |      |      |                        |                              |                         |
|--|------------------|------------------|------------------|------------------|------------------|------|------|------------------------|------------------------------|-------------------------|
|  |                  |                  |                  |                  |                  |      |      |                        |                              |                         |
| Sample ID  | MS-BH13S         | F-BH101D         | F-BH101M         | F-BH102D         | F-BH102M         |      |      |                        |                              |                         |
| Donth  | 7.00             | 05.00            | 0.00             | 00.00            | 10.00            |      |      |                        |                              |                         |
| COC No / misc  | 7.00             | 25.00            | 8.00             | 28.00            | 10.00            |      |      | Please sei<br>abbrevi; | e attacned m<br>ations and a | otes for all<br>cronyms |
| Containers   | V H HN N P G     |      |      |                        |                              | -                       |
| Sample Date  | 09/11/2022 13:30 | 09/11/2022 11:30 | 09/11/2022 10:30 | 09/11/2022 16:30 | 09/11/2022 15:15 |      |      |                        |                              |                         |
| Sample Type  | Ground Water     |      |      | ļ,                     |                              | T                       |
| Batch Number   | 1                | 1                | 1                | 1                | 1                |      |      | LOD/LOR                | Units                        | Method<br>No.           |
| VOC MS   | 00/11/2022       | 00/11/2022       | 00/11/2022       | 00/11/2022       | 00/11/2022       |      |      |                        |                              |                         |
| Dichlorodifluoromethane  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| Methyl Tertiary Butyl Ether #  | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             |      |      | <0.1                   | ug/l                         | TM15/PM10               |
| Chloromethane <sup>#</sup>   | <3               | <3               | <3               | <3               | <3               |      | <br> | <3                     | ug/l                         | TM15/PM10               |
| Vinyl Chloride "<br>Bromomethane   | <0.1<br><1       | <0.1<br><1       | <0.1<br><1       | <0.1<br><1       | <0.1<br><1       |      |      | <0.1<br><1             | ug/i                         | TM15/PM10               |
| Chloroethane <sup>#</sup>  | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| Trichlorofluoromethane #   | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| 1,1-Dichloroethene (1,1 DCE) <sup>#</sup>                                | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| Dichloromethane (DCM)*   | <3               | <3               | <3               | <3               | <3               |      | <br> | <br><3                 | ug/l                         | TM15/PM10               |
| trans-1-2-Dichloroetnene   | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/i<br>ua/l                 | TM15/PM10               |
| cis-1-2-Dichloroethene <sup>#</sup>                                      | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| 2,2-Dichloropropane  | <1               | <1               | <1               | <1               | <1               |      |      | <1                     | ug/l                         | TM15/PM10               |
| Bromochloromethane #   | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| Chloroform <sup>#</sup>  | <2               | <2               | <2               | <2               | <2               |      | <br> | <2                     | ug/l                         | TM15/PM10               |
| 1,1,1-I richloroetnane<br>1 1-Dichloropropene <sup>#</sup>               | <3               | <3               | <3               | <3               | <3               |      |      | <2                     | ug/i<br>ua/l                 | TM15/PM10               |
| Carbon tetrachloride <sup>#</sup>  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| 1,2-Dichloroethane <sup>#</sup>  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| Benzene#   | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |      |      | <0.5                   | ug/l                         | TM15/PM10               |
| Trichloroethene (TCE)*   | <3               | <3               | <3               | <3               | <3               |      | <br> | <3                     | ug/l                         | TM15/PM10               |
| 1,2-Dicnioroproparie<br>Dibromomethane <sup>#</sup>                      | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/i                         | TM15/PM10               |
| Bromodichloromethane #   | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| cis-1-3-Dichloropropene  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| Toluene <sup>#</sup>   | <5               | <5               | <5               | <5               | <5               |      | <br> | <5                     | ug/l                         | TM15/PM10               |
| trans-1-3-Dichloropropene  | <2               | <2               | <2               | <2               | <2               |      | <br> | <2<br><2               | ug/i                         | TM15/PM10<br>TM15/PM10  |
| Tetrachloroethene (PCE) <sup>#</sup>                                     | <3               | <3               | <3               | <3               | <3               |      |      | ~ <u>~</u><br><3       | ug/l                         | TM15/PM10               |
| 1,3-Dichloropropane <sup>#</sup>   | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| Dibromochloromethane #   | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| 1,2-Dibromoethane *  | <2               | <2               | <2               | <2               | <2               |      | <br> | <2                     | ug/l                         | TM15/PM10               |
| Chlorobenzene  | <2               | <2               | <2               | <2               | < <u>~</u><br><2 |      |      | <2<br><2               | ug/i<br>ua/l                 | TM15/PM10               |
| Ethylbenzene <sup>#</sup>  | <1               | <1               | <1               | <1               | <1               |      |      | <1                     | ug/l                         | TM15/PM10               |
| m/p-Xylene <sup>#</sup>  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| o-Xylene #   | <1               | <1               | <1               | <1               | <1               |      | <br> | <1                     | ug/l                         | TM15/PM10               |
| Styrene  | <2               | <2               | <2               | <2               | <2               |      | <br> | <2<br><2               | ug/l                         | TM15/PM10               |
| Bromotorm<br>Isopropylbenzene <sup>#</sup>                               | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/i                         | TM15/PM10               |
| 1,1,2,2-Tetrachloroethane  | <4               | <4               | <4               | <4               | <4               |      |      | <4                     | ug/l                         | TM15/PM10               |
| Bromobenzene <sup>#</sup>  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| 1,2,3-Trichloropropane <sup>#</sup>                                      | <3               | <3               | <3               | <3               | <3               |      | <br> | <3                     | ug/l                         | TM15/PM10               |
| Propylbenzene"   | <3               | <3               | <3               | <3               | <3               |      | <br> | <3                     | ug/I                         | TM15/PM10               |
| 1.3.5-Trimethvlbenzene <sup>#</sup>                                      | <3               | <3               | <3               | <3               | <3               |      |      | <br><3                 | ug/i                         | TM15/PM10               |
| 4-Chlorotoluene <sup>#</sup>   | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| tert-Butylbenzene <sup>#</sup>   | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| 1,2,4-Trimethylbenzene*  | <3               | <3               | <3               | <3               | <3               |      | <br> | <3                     | ug/l                         | TM15/PM10               |
| sec-Butylbenzene "   | <3               | <3<br><3         | <3<br><3         | <3<br><3         | <3<br><3         |      |      | <3<br><3               | ug/i                         | TM15/PM10               |
| 1.3-Dichlorobenzene <sup>#</sup>   | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| 1,4-Dichlorobenzene <sup>#</sup>   | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| n-Butylbenzene <sup>#</sup>  | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| 1,2-Dichlorobenzene <sup>#</sup>   | <3               | <3               | <3               | <3               | <3               |      | <br> | <br><3                 | ug/l                         | TM15/PM10               |
| 1,2-Dibromo-o-chloropropane<br>1 2 4-Trichlorobenzene                    | <2 <3            | <2 <3            | <2 <3            | <2 <3            | <2 <3            |      |      | <2<br><3               | ug/i<br>ua/l                 | TM15/PM10               |
| Hexachlorobutadiene  | <3               | <3               | <3               | <3               | <3               |      |      | <3                     | ug/l                         | TM15/PM10               |
| Naphthalene  | <2               | <2               | <2               | <2               | <2               |      |      | <2                     | ug/l                         | TM15/PM10               |
| 1,2,3-Trichlorobenzene   | <3               | <3               | <3               | <3               | <3               | <br> | <br> | <br><3                 | ug/l                         | TM15/PM10               |
| Surrogate Recovery Toluene D8<br>Surrogate Recovery 4-Bromofluorobenzene | 87               | 92               | 95               | 100              | 94               |      |      | <br><0                 | %                            | TM15/PM10               |

| Job number:      | 22/18344     | Method: | VOC    |
|------------------|--------------|---------|--------|
| Sample number:   | 34           | Matrix: | Liquid |
| Sample identity: | F-BH102D     |         |        |
| Sample depth:    | 28.00        |         |        |
| Sample Type:     | Ground Water |         |        |
| Units:           | ug/l         |         |        |
| N (              |              |         |        |

Note: Only samples with TICs (if requested) are reported. If TICs were requested but no compounds found they are not reported.

| CAS No.  | Tentative Compound Identification | Retention Time<br>(minutes) | % Match | Concentration |
|----------|-----------------------------------|-----------------------------|---------|---------------|
| 66-25-1  | Hexanal                           | 5.429                       | 90      | 105           |
| 110-43-0 | 2-Heptanone                       | 6.125                       | 91      | 227           |
|          |                                   |                             |         |               |
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| Job number:          | 22/18344     | Method: | SVOC   |  |
|----------------------|--------------|---------|--------|--|
| Sample number:       | 44           | Matrix: | Liquid |  |
| Sample identity:     | F-BH102D     |         |        |  |
| Sample depth:        | 28.00        |         |        |  |
| Sample Type:         | Ground Water |         |        |  |
| Units:               | ug/l         |         |        |  |
| Notes of the the Tio |              |         |        |  |

Note: Only samples with TICs (if requested) are reported. If TICs were requested but no compounds found they are not reported.

| CAS No.   | Tentative Compound Identification | Retention Time<br>(minutes) | % Match | Concentration |
|-----------|-----------------------------------|-----------------------------|---------|---------------|
| 111-27-3  | 1-Hexanol                         | 3.024                       | 83      | 139           |
| 110-43-0  | 2-Heptanone                       | 3.200                       | 90      | 267           |
| 3391-86-4 | 1-Octen-3-ol                      | 4.187                       | 90      | 132           |
|           |                                   |                             |         |               |
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NDP Reason Report

Matrix : Liquid

| Client Name: | Arcadis      |
|--------------|--------------|
| Reference:   | 10035117     |
| Location:    | Redcar LWoW  |
| Contact:     | Olivia Grace |

| EMT<br>Job<br>No. | Batch | Sample ID | Depth | EMT<br>Sample<br>No. | Method No. | NDP Reason   |
|-------------------|-------|-----------|-------|----------------------|------------|--|
| 22/18344          | 1     | MS-BH13S  | 7.00  | 1-11                 | TM170/PM14 | Sample unsuitable for analysis by ICP-MS. Sample rescheduled for analysis by ICP-OES |
| 22/18344          | 1     | F-BH102D  | 28.00 | 34-44                | TM170/PM14 | Sample unsuitable for analysis by ICP-MS. Sample rescheduled for analysis by ICP-OES |
|                   |       |           |       |                      |            |  |
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| Client Name: | Arcadis      |
|--------------|--------------|
| Reference:   | 10035117     |
| Location:    | Redcar LWoW  |
| Contact:     | Olivia Grace |

| EMT<br>Job<br>No. | Batch   | Sample ID | Depth | EMT<br>Sample<br>No. | Analysis | Reason |  |  |  |  |
|-------------------|---|-----------|-------|----------------------|----------|--------|--|--|--|--|
|                   | No deviating sample report results for job 22/18344 |           |       |                      |          |        |  |  |  |  |
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Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

## NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

**EMT Job No.:** 22/18344

### SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at  $35^{\circ}C \pm 5^{\circ}C$  unless otherwise stated. Moisture content for CEN Leachate tests are dried at  $105^{\circ}C \pm 5^{\circ}C$ . Ash samples are dried at  $37^{\circ}C \pm 5^{\circ}C$ .

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

### WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

### STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

### **DEVIATING SAMPLES**

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

### SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

### DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

### BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

### NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

### **REPORTS FROM THE SOUTH AFRICA LABORATORY**

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

### **Measurement Uncertainty**

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

### **Customer Provided Information**

Sample ID and depth is information provided by the customer.

| #       | ISO17025 (UKAS Ref No. 4225) accredited - UK.  |
|---------|--|
| SA      | ISO17025 (SANAS Ref No.T0729) accredited - South Africa  |
| В       | Indicates analyte found in associated method blank.  |
| DR      | Dilution required.   |
| М       | MCERTS accredited.   |
| NA      | Not applicable   |
| NAD     | No Asbestos Detected.  |
| ND      | None Detected (usually refers to VOC and/SVOC TICs).   |
| NDP     | No Determination Possible  |
| SS      | Calibrated against a single substance  |
| SV      | Surrogate recovery outside performance criteria. This may be due to a matrix effect.   |
| W       | Results expressed on as received basis.  |
| +       | AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.                           |
| >>      | Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher. |
| *       | Analysis subcontracted to an Element Materials Technology approved laboratory.   |
| AD      | Samples are dried at 35°C ±5°C   |
| со      | Suspected carry over   |
| LOD/LOR | Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS  |
| ME      | Matrix Effect  |
| NFD     | No Fibres Detected   |
| BS      | AQC Sample   |
| LB      | Blank Sample   |
| N       | Client Sample  |
| ТВ      | Trip Blank Sample  |
| OC      | Outside Calibration Range  |
| AA      | x4 Dilution  |
| AB      | x5 Dilution  |
| AC      | x10 Dilution   |

### HWOL ACRONYMS AND OPERATORS USED

| HS    | Headspace Analysis.  |
|-------|--|
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent. |
| CU    | Clean-up - e.g. by florisil, silica gel.                             |
| 1D    | GC - Single coil gas chromatography.                                 |
| Total | Aliphatics & Aromatics.  |
| AL    | Aliphatics only.   |
| AR    | Aromatics only.  |
| 2D    | GC-GC - Double coil gas chromatography.                              |
| #1    | EH_Total but with humics mathematically subtracted                   |
| #2    | EU_Total but with fatty acids mathematically subtracted              |
| _     | Operator - underscore to separate acronyms (exception for +).        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total   |
| MS    | Mass Spectrometry.   |

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description  | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|--|----------------------------------|------------------------------|--|------------------------------------|
| тмо             | Not available  | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  | Yes                              |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present. | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex. |                                  |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present. | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex. | Yes                              |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details  | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details  |                                  |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details  | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details  | Yes                              |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.  | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   |                                  |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.  | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   | Yes                              |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.  | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |

| Test Method No. | Description   | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|---|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   | Yes                              |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.   | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.   | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996                          | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996                          | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |
| TM36            | Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics<br>(GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-<br>elutes with 3-methylpentane if present and therefore can give a false positive. Positive<br>MTBE results will be re-run using GC-MS to double check, when requested.                               | PM12                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.  | Yes                              |                              |  |                                    |
| ТМ37            | 2540D:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 1604 (1971) and<br>SMEWW 2540E:1999 22nd Edition. Gravimetric determination of Total Suspended<br>Solids (TSS) and Volatile Suspended Solids (VSS). Sample is filtered through a 1.5um<br>pore size glass fibre filter and the resulting residue is dried and weighed at 105°C for<br>TSS and E50°C for USS. | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I   | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM60            | TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM61            | Determination of Mercury by Cold Vapour Atomic Fluorescence - WATERS: Modified USEPA Method 245.7, Rev 2, Feb 2005. SOILS: Modified USEPA Method 7471B, Rev.2, Feb 2007   | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM73            | Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-<br>3:1990. Determination of pH by Metrohm automated probe analyser.  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM75            | Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM89            | Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection<br>Analyser. Where WAD cyanides are required a Ligand displacement step is carried out<br>before analysis.                             | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM107           | Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser   | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM170           | Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass<br>Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method<br>6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |



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W: www.element.com



Three samples were received for analysis on 10th November, 2022 of which three were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

5.6000

Simon Gomery BSc Project Manager

Please include all sections of this report if it is reproduced
| Client Name:                          | Arcadis              |                      |                      |  | Report :                           | Liquid     |              |                  |              |              |              |
|---------------------------------------|----------------------|----------------------|----------------------|--|------------------------------------|------------|--------------|------------------|--------------|--------------|--------------|
| Location:                             | Redcar               |                      |                      |  |                                    |            |              |                  |              |              |              |
| Contact:                              | Olivia Gra           | ice                  |                      |  | Liquids/pr                         | oducts: V= | 40ml vial, G | =glass bott      | e, P=plastic | bottle       |              |
| EMT Job No:                           | 22/18471             |                      |                      |  | H=H <sub>2</sub> SO <sub>4</sub> , | Z=ZnAc, N= | NaOH, HN=    | HN0 <sub>3</sub> |              |              |              |
| EMT Sample No                         | 1-11                 | 12-22                | 23-33                |  |                                    |            |              |                  |              |              |              |
| Lint oumple no.                       |                      | 12 22                | 20 00                |  |                                    |            |              |                  |              |              |              |
| Sample ID                             | F-BH102s             | MS-BH13d             | MS-BH17d             |  |                                    |            |              |                  |              |              |              |
| Depth                                 | 10.00                | 17.00                | 18.00                |  |                                    |            |              |                  | Ploase se    | o attached n | otos for all |
| COC No / misc                         |                      |                      |                      |  |                                    |            |              |                  | abbrevia     | ations and a | cronyms      |
| Contoinoro                            |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
| Containers                            | VEENINFG             | V H HN Z P G         | VITINZEG             |  |                                    |            |              |                  |              |              |              |
| Sample Date                           | 08/11/2022           | 01/11/2022           | 01/11/2022           |  |                                    |            |              |                  |              |              |              |
| Sample Type                           | Ground Water         | Ground Water         | Ground Water         |  |                                    |            |              |                  |              |              |              |
| Batch Number                          | 1                    | 1                    | 1                    |  |                                    |            |              |                  |              | 11.20        | Method       |
| Date of Receipt                       | 10/11/2022           | 10/11/2022           | 10/11/2022           |  |                                    |            |              |                  | LOD/LOR      | Units        | No.          |
| Dissolved Aluminium <sup>#</sup>      | 156.0                | -                    | 148.6                |  |                                    |            |              |                  | <1.5         | ug/l         | TM170/PM14   |
| Dissolved Arsenic <sup>#</sup>        | 4.3                  | NDP                  | 6.9                  |  |                                    |            |              |                  | <0.9         | ug/l         | TM170/PM14   |
| Dissolved Boron <sup>#</sup>          | 219                  | NDP                  | 16                   |  |                                    |            |              |                  | <12          | ug/l         | TM170/PM14   |
| Dissolved Cadmium <sup>#</sup>        | 0.11                 | NDP                  | <0.03                |  |                                    |            |              |                  | <0.03        | ug/l         | TM170/PM14   |
| Total Dissolved Chromium <sup>#</sup> | 0.3                  | NDP                  | <0.2                 |  |                                    |            |              |                  | <0.2         | ug/l         | TM170/PM14   |
| Dissolved Copper <sup>#</sup>         | <1                   | NDP                  | <1                   |  |                                    |            |              |                  | <1           | ug/l         | TM170/PM14   |
| Total Dissolved Iron #                | 31.3                 | NDP                  | 28.4                 |  |                                    |            |              |                  | <4.7         | ug/l         | TM170/PM14   |
| Dissolved Lead #                      | <0.4                 | NDP                  | <0.4                 |  |                                    |            |              |                  | <0.4         | ug/l         | TM170/PM14   |
| Dissolved Manganese #                 | 1.7                  | NDP                  | <1.5                 |  |                                    |            |              |                  | <1.5         | ug/l         | TM170/PM14   |
| Dissolved Molybdenum <sup>#</sup>     | 208.5                | -                    | 50.7                 |  |                                    |            |              |                  | <0.2         | ug/l         | TM170/PM14   |
| Dissolved Nickel <sup>#</sup>         | 2.3                  | NDP                  | 1.7                  |  |                                    |            |              |                  | <0.2         | ug/l         | TM170/PM14   |
| Dissolved Zinc <sup>#</sup>           | 3.4                  | NDP                  | 2.4                  |  |                                    |            |              |                  | <1.5         | ug/l         | TM170/PM14   |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
| Dissolved Aluminium <sup>#</sup>      | -                    | 1.5                  | -                    |  |                                    |            |              |                  | <1.5         | ug/l         | TM30/PM14    |
| Dissolved Arsenic*                    | -                    | 3.0                  | -                    |  |                                    |            |              |                  | <0.9         | ug/l         | TM30/PM14    |
| Dissolved Boron                       | -                    | 1393                 | -                    |  |                                    |            |              |                  | <12          | ug/l         | TM30/PM14    |
| Dissolved Cadmium"                    | -                    | <0.03                | -                    |  |                                    |            |              |                  | <0.03        | ug/i         | TM30/PM14    |
| Total Dissolved Chromium <sup>#</sup> | 404.3AC              | 0.4                  | 434.0AB              |  |                                    |            |              |                  | <0.2         | ug/l         | TM30/PM14    |
| Dissolved Copper <sup>#</sup>         | _                    | <3                   | _                    |  |                                    |            |              |                  | <3           | ug/l         | TM30/PM14    |
| Total Dissolved Iron #                | -                    | 1816.4               | -                    |  |                                    |            |              |                  | <4.7         | ug/l         | TM30/PM14    |
| Dissolved Lead #                      | -                    | <0.4                 | -                    |  |                                    |            |              |                  | <0.4         | ua/l         | TM30/PM14    |
| Dissolved Magnesium <sup>#</sup>      | <0.1                 | 985.8AC              | 0.3                  |  |                                    |            |              |                  | <0.1         | mg/l         | TM30/PM14    |
| Dissolved Manganese <sup>#</sup>      | -                    | 1717.2               | -                    |  |                                    |            |              |                  | <1.5         | ug/l         | TM30/PM14    |
| Dissolved Molybdenum <sup>#</sup>     | -                    | <0.2                 | -                    |  |                                    |            |              |                  | <0.2         | ug/l         | TM30/PM14    |
| Dissolved Nickel#                     | -                    | 2.8                  | -                    |  |                                    |            |              |                  | <0.2         | ug/l         | TM30/PM14    |
| Dissolved Potassium <sup>#</sup>      | 56.1                 | 117.7 <sub>AC</sub>  | 122.8 <sub>AB</sub>  |  |                                    |            |              |                  | <0.1         | mg/l         | TM30/PM14    |
| Dissolved Silicon                     | 3232                 | 2606                 | 8961                 |  |                                    |            |              |                  | <100         | ug/l         | TM30/PM14    |
| Dissolved Sodium <sup>#</sup>         | 165.3                | 8236.7 <sub>AE</sub> | 89.1                 |  |                                    |            |              |                  | <0.1         | mg/l         | TM30/PM14    |
| Dissolved Zinc <sup>#</sup>           | -                    | 39.9                 | -                    |  |                                    |            |              |                  | <1.5         | ug/l         | TM30/PM14    |
| Mercury Dissolved by CVAF #           | 0.12 <sub>AA</sub>   | <0.01                | <0.01                |  |                                    |            |              |                  | <0.01        | ug/l         | TM61/PM0     |
| Total Dissolved Sulphur as S          | 339617 <sub>AC</sub> | 939605 <sub>AE</sub> | 300119 <sub>AD</sub> |  |                                    |            |              |                  | <10          | ug/l         | TM30/PM14    |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  | <br>                               |            |              |                  |              |              |              |
|                                       |                      |                      |                      |  |                                    |            |              |                  |              |              | 1            |

| Client Name:                            | Arcadis      |              |              |  | Report :                           | Liquid     |             |                       |                       |                               |                         |
|---|--------------|--------------|--------------|--|------------------------------------|------------|-------------|-----------------------|-----------------------|-------------------------------|-------------------------|
| Reference:                              | Redcar       |              |              |  |                                    |            |             |                       |                       |                               |                         |
| Contact:                                | Olivia Gra   | ice          |              |  | l iquids/pr                        | oducts: V= | 40ml vial G | alass hott            | e P=plastic           | bottle                        |                         |
| EMT Job No:                             | 22/18471     |              |              |  | H=H <sub>2</sub> SO <sub>4</sub> . | Z=ZnAc. N= | NaOH. HN=   | -giass botti<br>:HN0₃ | e, i -piastic         | Dottie                        |                         |
|   |              |              |              |  |                                    | 1          |             |                       |                       |                               |                         |
| EMT Sample No.                          | 1-11         | 12-22        | 23-33        |  |                                    |            |             |                       |                       |                               |                         |
| Sample ID                               | F-BH102s     | MS-BH13d     | MS-BH17d     |  |                                    |            |             |                       |                       |                               |                         |
| Depth                                   | 10.00        | 17.00        | 18.00        |  |                                    |            |             |                       | Diaman                |                               |                         |
|   |              |              |              |  |                                    |            |             |                       | Please se<br>abbrevia | e attached n<br>ations and ac | otes for all<br>cronyms |
| COC NO / MISC                           |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
| Containers                              | V H HN N P G | V H HN Z P G | V H HN Z P G |  |                                    |            |             |                       |                       |                               |                         |
| Sample Date                             | 08/11/2022   | 01/11/2022   | 01/11/2022   |  |                                    |            |             |                       |                       |                               |                         |
| Sample Type                             | Ground Water | Ground Water | Ground Water |  |                                    |            |             |                       |                       |                               |                         |
| Batch Number                            | 1            | 1            | 1            |  |                                    |            |             |                       |                       |                               |                         |
| Baton Humber                            |              |              |              |  |                                    |            |             |                       | LOD/LOR               | Units                         | Method<br>No.           |
| Date of Receipt                         | 10/11/2022   | 10/11/2022   | 10/11/2022   |  |                                    |            |             |                       |                       |                               |                         |
| PAH MS                                  |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
| Naphthalene *                           | <0.1         | 0.1          | <0.1         |  |                                    |            |             |                       | <0.1                  | ug/l                          | TM4/PM30                |
| Acenaphthylene #                        | <0.005       | < 0.005      | 0.037        |  |                                    |            |             |                       | < 0.005               | ug/l                          | TM4/PM30                |
| Acenaphthene *                          | 0.011        | 0.006        | 0.224        |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Fluorene *                              | <0.005       | < 0.005      | 0.052        |  |                                    |            |             |                       | < 0.005               | ug/l                          | TM4/PM30                |
| Phenanthrene "                          | 0.018        | < 0.005      | 0.069        |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Anthracene "                            | <0.005       | <0.005       | 0.005        |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Fluoranthene "                          | 0.024        | 0.005        | 0.021        |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Pyrene"                                 | 0.018        | 0.007        | 0.020        |  |                                    |            |             |                       | <0.005                | ug/I                          | TM4/PM30                |
| Benzo(a)anthracene "                    | 0.006        | < 0.005      | <0.005       |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Chrysene "                              | 0.008        | < 0.005      | < 0.005      |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Benzo(bk)fluoranthene"                  | 0.008        | <0.008       | <0.008       |  |                                    |            |             |                       | <0.008                | ug/i                          | TM4/PM30                |
| Benzo(a)pyrene *                        | <0.005       | < 0.005      | <0.005       |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Indeno(123cd)pyrene "                   | <0.005       | < 0.005      | <0.005       |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Dibenzo(ah)anthracene"                  | <0.005       | < 0.005      | <0.005       |  |                                    |            |             |                       | <0.005                | ug/l                          | TM4/PM30                |
| Benzo(ghi)perylene                      | <0.005       | <0.005       | <0.005       |  |                                    |            |             |                       | <0.005                | ug/i                          | TM4/PM30                |
| PAH 16 Total"                           | <0.173       | <0.173       | 0.428        |  |                                    |            |             |                       | <0.173                | ug/i                          | TM4/PM30                |
| Benzo(b)liuoranthene                    | <0.008       | <0.008       | <0.008       |  |                                    |            |             |                       | <0.008                | ug/i                          | TM4/PM30                |
|   | <0.000<br>01 | <0.000       | <0.000       |  |                                    |            |             |                       | <0.000                | ug/i                          | TM4/PM30                |
| PAR Surrogate % Recovery                | 01           | 02           | 02           |  |                                    |            |             |                       | ~0                    | 70                            | 11014/1710130           |
| VOC TICs                                | ND           | ND           | ND           |  |                                    |            |             |                       |                       | None                          | TM15/PM10               |
| Methyl Tertiary Butyl Ether#            | <0.1         | <0.1         | <0.1         |  |                                    |            |             |                       | <0.1                  | ug/l                          | TM15/PM10               |
| Benzene <sup>#</sup>                    | <0.5         | <0.5         | <0.5         |  |                                    |            |             |                       | <0.5                  | ug/l                          | TM15/PM10               |
| Toluene <sup>#</sup>                    | <5           | <5           | <5           |  |                                    |            |             |                       | <5                    | ug/l                          | TM15/PM10               |
| Ethylbenzene #                          | <1           | <1           | <1           |  |                                    |            |             |                       | <1                    | ug/l                          | TM15/PM10               |
| m/p-Xylene #                            | <2           | <2           | <2           |  |                                    |            |             |                       | <2                    | ug/l                          | TM15/PM10               |
| o-Xylene <sup>#</sup>                   | <1           | <1           | <1           |  |                                    |            |             |                       | <1                    | ug/l                          | TM15/PM10               |
| Surrogate Recovery Toluene D8           | 91           | 93           | 101          |  |                                    |            |             |                       | <0                    | %                             | TM15/PM10               |
| Surrogate Recovery 4-Bromofluorobenzene | 99           | 94           | 105          |  |                                    |            |             |                       | <0                    | %                             | TM15/PM10               |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
| SVOC TICs                               | ND           | ND           | ND           |  |                                    |            |             |                       |                       | None                          | TM16/PM30               |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |
|   |              |              |              |  |                                    |            |             |                       |                       |                               |                         |

| Client Name:<br>Reference:             | Arcadis      |                       |               |   |  | Report :                           | Liquid     |              |                  |              |              |                        |
|--|--------------|-----------------------|---------------|---|--|------------------------------------|------------|--------------|------------------|--------------|--------------|------------------------|
| Location:                              | Redcar       |                       |               |   |  |                                    |            |              |                  |              |              |                        |
| Contact:                               | Olivia Gra   | ice                   |               |   |  | Liquids/pr                         | oducts: V= | 40ml vial, G | =glass bottl     | e, P=plastic | bottle       |                        |
| EMT Job No:                            | 22/18471     |                       |               |   |  | H=H <sub>2</sub> SO <sub>4</sub> , | Z=ZnAc, N= | NaOH, HN=    | HN0 <sub>3</sub> |              |              |                        |
| EMT Sample No.                         | 1-11         | 12-22                 | 23-33         |   |  |                                    |            |              |                  |              |              |                        |
| Sample ID                              | F-BH102s     | MS-BH13d              | MS-BH17d      |   |  |                                    |            |              |                  |              |              |                        |
| Depth                                  | 10.00        | 17.00                 | 18.00         |   |  |                                    |            |              |                  | Please se    | e attached n | otes for all           |
| COC No / misc                          |              |                       |               |   |  |                                    |            |              |                  | abbrevi      | ations and a | cronyms                |
| Containers                             | V H HN N P G | V H HN Z P G          | V H HN Z P G  |   |  |                                    |            |              |                  |              |              |                        |
| Sample Date                            | 08/11/2022   | 01/11/2022            | 01/11/2022    |   |  |                                    |            |              |                  |              |              |                        |
| Sample Type                            | Ground Water | Ground Water          | Ground Water  |   |  |                                    |            |              |                  |              |              |                        |
| Sample Type                            | Ground water | Giound Water          | Giburia Water |   |  |                                    |            |              |                  |              |              |                        |
| Batch Number                           | 1            | 1                     | 1             |   |  |                                    |            |              |                  | LOD/LOR      | Units        | Method                 |
| Date of Receipt                        | 10/11/2022   | 10/11/2022            | 10/11/2022    |   |  |                                    |            |              |                  |              |              | 110.                   |
| TPH CWG                                |              |                       |               |   |  |                                    |            |              |                  |              |              |                        |
| Aliphatics                             | 20           | -10                   | -10           |   |  |                                    |            |              |                  | -10          |              | TNOCIDNAG              |
| >C5-C6"                                | 39           | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/i         | TM36/PM12              |
| >C6-C8                                 | 98           | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM36/PM12              |
| >C10-C12 <sup>#</sup>                  | <5           | <5                    | <5            |   |  |                                    |            |              |                  | <5           | ug/l         | TM5/PM16/PM30          |
| >C12-C16 <sup>#</sup>                  | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| >C16-C21#                              | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| >C21-C35#                              | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| >C35-C44                               | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| Total aliphatics C5-35 <sup>#</sup>    | 148          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Total aliphatics C5-44                 | 148          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Aromatics                              | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM36/DM12              |
| >EC7_EC8 <sup>#</sup>                  | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM36/PM12              |
| >EC8-EC10 <sup>#</sup>                 | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM36/PM12              |
| >EC10-EC12#                            | <5           | <5                    | <5            |   |  |                                    |            |              |                  | <5           | ug/l         | TM5/PM16/PM30          |
| >EC12-EC16#                            | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| >EC16-EC21#                            | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| >EC21-EC35 <sup>#</sup>                | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| >EC35-EC44                             | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/PM16/PM30          |
| Total aromatics C5-35*                 | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Total aliphatics and aromatics(C5-35)* | <10          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/i         | TM5/TM38/PM12/PM16/PM3 |
| Total aliphatics and aromatics(C5-44)  | 148          | <10                   | <10           |   |  |                                    |            |              |                  | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
|  | -            | _                     | -             |   |  |                                    |            |              |                  | -            |              |                        |
| Resorcinol                             | <0.01        | <0.01                 | <0.01         |   |  |                                    |            |              |                  | <0.01        | mg/l         | TM26/PM0               |
| Catechol                               | <0.01        | <0.01                 | <0.01         |   |  |                                    |            |              |                  | <0.01        | mg/l         | TM26/PM0               |
| Phenol <sup>#</sup>                    | <0.01        | <0.01                 | <0.01         |   |  |                                    |            |              |                  | <0.01        | mg/l         | TM26/PM0               |
| m/p-cresol                             | 0.03         | <0.02                 | <0.02         |   |  |                                    |            |              |                  | <0.02        | mg/l         | TM26/PM0               |
| o-cresol                               | <0.01        | <0.01                 | <0.01         |   |  |                                    |            |              |                  | <0.01        | mg/l         | TM26/PM0               |
| Total cresols *                        | 0.03         | <0.03                 | < 0.03        |   |  |                                    |            |              |                  | <0.03        | mg/l         | TM26/PM0               |
| Xylenols"                              | <0.06        | <0.06                 | <0.06         |   |  |                                    |            |              |                  | <0.06        | mg/l         | TM26/PM0               |
| 2.3.5-trimethyl phenol                 | <0.01        | <0.01                 | <0.01         |   |  |                                    |            |              |                  | <0.01        | mg/l         | TM26/PM0               |
| 2-isopropylphenol                      | <0.01        | <0.01                 | <0.01         |   |  |                                    |            |              |                  | <0.01        | mg/l         | TM26/PM0               |
| Total Speciated Phenols HPLC           | <0.1         | <0.1                  | <0.1          |   |  |                                    |            |              |                  | <0.1         | mg/l         | TM26/PM0               |
|  |              |                       |               |   |  |                                    |            |              |                  |              |              |                        |
| Sulphate as SO4 <sup>#</sup>           | 633.7        | 3433.1                | 1176.4        |   |  |                                    |            |              |                  | <0.5         | mg/l         | TM38/PM0               |
| Chloride <sup>#</sup>                  | 178.5        | 13236.6 <sub>AD</sub> | 82.4          |   |  |                                    |            |              |                  | <0.3         | mg/l         | TM38/PM0               |
| Nitrate as NO3 <sup>#</sup>            | <0.2         | <0.2                  | <0.2          |   |  |                                    |            |              |                  | <0.2         | mg/l         | TM38/PM0               |
| Nitrite as NO2 <sup>#</sup>            | <0.02        | <0.02                 | <0.02         |   |  |                                    |            |              |                  | <0.02        | mg/l         | TM38/PM0               |
| Ortho Phosphate as PO4 *               | <0.06        | <0.06                 | <0.06         |   |  |                                    |            |              |                  | <0.06        | mg/l         | 1M38/PM0               |
|  |              | I                     |               | 1 |  |                                    |            |              |                  |              |              |                        |

| Client Name:                           | Arcadis              |                      |                      |  | Report :                           | Liquid     |              |                   |              |              |               |
|--|----------------------|----------------------|----------------------|--|------------------------------------|------------|--------------|-------------------|--------------|--------------|---------------|
| Location:                              | Redcar               |                      |                      |  |                                    |            |              |                   |              |              |               |
| Contact:                               | Olivia Gra           | ice                  |                      |  | Liquids/pr                         | oducts: V= | 40ml vial, G | G=glass bottl     | e, P=plastic | bottle       |               |
| EMT Job No:                            | 22/18471             |                      |                      |  | H=H <sub>2</sub> SO <sub>4</sub> , | Z=ZnAc, N= | NaOH, HN=    | =HN0 <sub>3</sub> |              |              |               |
| EMT Sample No.                         | 1-11                 | 12-22                | 23-33                |  |                                    |            |              |                   |              |              |               |
| Sample ID                              | F-BH102s             | MS-BH13d             | MS-BH17d             |  |                                    |            |              |                   |              |              |               |
| Depth                                  | 10.00                | 17.00                | 18.00                |  |                                    |            |              |                   | Please se    | e attached n | otes for all  |
| COC No / misc                          |                      |                      |                      |  |                                    |            |              |                   | abbrevi      | ations and a | cronyms       |
| Containers                             | VHHNNPG              | V H HN Z P G         | V H HN Z P G         |  |                                    |            |              |                   |              |              |               |
| Sample Date                            | 08/11/2022           | 01/11/2022           | 01/11/2022           |  |                                    |            |              |                   |              |              |               |
| Sample Type                            | Ground Water         | Ground Water         | Ground Water         |  |                                    |            |              |                   |              |              |               |
| Datab Namber ye                        | Cround Water         |                      |                      |  |                                    |            |              |                   |              |              |               |
| Batch Number                           | 1                    | 1                    | 1                    |  |                                    |            |              |                   | LOD/LOR      | Units        | Method<br>No. |
| Date of Receipt                        | 10/11/2022           | 10/11/2022           | 10/11/2022           |  |                                    |            |              |                   |              |              |               |
| Free Cyanide                           | <0.100 <sub>AF</sub> | 0.001                | <0.005 <sub>AB</sub> |  |                                    |            |              |                   | <0.001       | mg/l         | TM89/PM0      |
| Total Cyanide                          | 0.114 <sub>AF</sub>  | 0.020                | 0.055                |  |                                    |            |              |                   | <0.001       | mg/l         | TM89/PM0      |
| Complex Cyanide                        | 0.114 <sub>AF</sub>  | 0.019                | 0.054                |  |                                    |            |              |                   | <0.001       | mg/l         | TM89/PM0      |
| Ammoniacal Nitrogen as N <sup>#</sup>  | 0.11                 | 5.86                 | 4.25                 |  |                                    |            |              |                   | <0.03        | mg/l         | TM38/PM0      |
| Total Alkalinity as CaCO3 <sup>#</sup> | 322                  | 350                  | 114                  |  |                                    |            |              |                   | <1           | mg/l         | TM75/PM0      |
|  | 0.70                 |                      |                      |  |                                    |            |              |                   | 0.01         |              | THEOTEDIA     |
| Sulphiae                               | 0.76                 | <0.01                | <0.01                |  |                                    |            |              |                   | <0.01        | mg/i         | TM107/PM0     |
| mocyanate                              | 0.14                 | -0.02                | 0.15                 |  |                                    |            |              |                   | 40.02        | mg/r         |               |
| Dissolved Organic Carbon <sup>#</sup>  | 80                   | <2                   | 6                    |  |                                    |            |              |                   | <2           | mg/l         | TM60/PM0      |
| Dissolved Inorganic Carbon #           | <2                   | 87                   | <2                   |  |                                    |            |              |                   | <2           | mg/l         | TM60/PM0      |
| рН #                                   | 11.88                | 7.07                 | 11.17                |  |                                    |            |              |                   | <0.01        | pH units     | TM73/PM0      |
| Total Suspended Solids <sup>#</sup>    | 19                   | 64                   | 42                   |  |                                    |            |              |                   | <10          | mg/l         | TM37/PM0      |
| Total Cations                          | 28.81                | 509.64 <sub>AC</sub> | 28.73                |  |                                    |            |              |                   | <0.00        | mmolc/l      | TM30/PM14     |
| Total Anions                           | 24.67                | 451.86               | 29.10                |  |                                    |            |              |                   | <0.00        | mmolc/l      | TM0/PM0       |
| % Cation Excess                        | 7.74                 | 6.01                 | -0.64                |  |                                    |            |              |                   |              | %            | TM0/PM0       |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |
|  |                      |                      |                      |  |                                    |            |              |                   |              |              |               |

| Client Name:  | Arcadis      |              |                 |  | SVOC Re | port : | Liquid |
|---|--------------|--------------|-----------------|--|---------|--------|--------|
| Reference:  | Podear       |              |                 |  |         |        |        |
|   |              | ~~           |                 |  |         |        |        |
|   |              | ice          |                 |  |         |        |        |
| EMT Job No:   | 22/18471     |              |                 |  |         |        |        |
| EMT Sample No.                                      | 1-11         | 12-22        | 23-33           |  |         |        |        |
|   |              |              |                 |  |         |        |        |
| Sample ID   | F-BH102s     | MS-BH13d     | MS-BH17d        |  |         |        |        |
| Denth   | 10.00        | 17.00        | 18.00           |  |         |        |        |
| COC No / misc                                       | 10.00        | 17.00        | 10.00           |  |         |        |        |
| Containers  | VHHNNPG      | V H HN Z P G | V H HN Z P G    |  |         |        |        |
| Sample Date   | 08/11/2022   | 01/11/2022   | 01/11/2022      |  |         |        |        |
| Sample Type   | Ground Water | Ground Water | Ground Water    |  |         |        |        |
| Batch Number  | 1            | 1            | 1               |  |         |        |        |
| Date of Receipt                                     | 10/11/2022   | 10/11/2022   | 10/11/2022      |  |         |        |        |
| SVOC MS   |              |              |                 |  |         |        |        |
| Phenols   |              |              |                 |  | <br>    |        |        |
| -Chlorophenol <sup>#</sup>                          | <1           | 1            | <1              |  |         |        |        |
| -Methylphenol *                                     | <0.5         | <0.5         | <0.5            |  |         |        |        |
| -Nitrophenol  | <0.5         | <0.5         | < 0.5           |  |         |        |        |
|   | <0.5<br><1   | <0.0<br><1   | <0.0<br><1      |  |         |        |        |
| 4 5-Trichlorophenol <sup>#</sup>                    | <0.5         | <0.5         | <0.5            |  |         |        |        |
| .4.6-Trichlorophenol                                | <1           | <1           | <1              |  |         |        |        |
| -Chloro-3-methvlphenol <sup>#</sup>                 | <0.5         | <0.5         | <0.5            |  |         |        |        |
| -Methylphenol                                       | <1           | <1           | <1              |  |         |        |        |
| -Nitrophenol  | <10          | <10          | <10             |  |         |        |        |
| entachlorophenol                                    | <1           | <1           | <1              |  |         |        |        |
| Phenol  | <1           | <1           | <1              |  |         |        |        |
| PAHs  |              |              |                 |  |         |        |        |
| -Chloronaphthalene#                                 | <1           | <1           | <1              |  |         |        |        |
| -Methylnaphthalene*                                 | <1           | <1           | <1              |  |         |        |        |
| Phthalates  |              |              |                 |  |         |        |        |
| ois(∠-etnyinexyi) phthalate                         | <5           | <5           | <5<br><1        |  |         |        |        |
| Ni-n-butyl philialale                               | <1.5         | <1.5         | <15             |  |         |        |        |
| )i-n-Octyl philialate                               | <1           | <1           | <1              |  |         |        |        |
| Diethyl phthalate <sup>#</sup>                      | <1           | 2            | <1              |  |         |        |        |
| Dimethyl phthalate                                  | <1           | <1           | <1              |  |         |        |        |
| Other SVOCs   |              |              |                 |  |         |        |        |
| ,2-Dichlorobenzene#                                 | <1           | <1           | <1              |  |         |        |        |
| ,2,4-Trichlorobenzene #                             | <1+          | <1*          | <1+             |  |         |        |        |
| ,3-Dichlorobenzene#                                 | <1           | <1           | <1              |  |         |        |        |
| ,4-Dichlorobenzene#                                 | <1           | <1           | <1              |  |         |        |        |
| -Nitroaniline                                       | <1           | <1           | <1              |  |         |        |        |
| 4-Dinitrotoluene                                    | <0.5         | <0.5         | <0.5            |  |         |        |        |
|   | <1           | <1           | <1              |  |         |        |        |
| -Nu daniine<br>-Bromonhenylnhonylothor <sup>#</sup> | <1           | <1           | <1              |  |         |        |        |
| -Chloroaniline                                      | <1           | <1           | <1              |  |         |        |        |
| -Chlorophenylphenylether#                           | <1+          | <1+          | <1 <sup>+</sup> |  |         |        |        |
| -Nitroaniline                                       | <0.5         | <0.5         | <0.5            |  |         |        |        |
| zobenzene #   | <0.5         | <0.5         | <0.5            |  |         |        |        |
| Bis(2-chloroethoxy)methane #                        | <0.5         | <0.5         | <0.5            |  |         |        |        |
| Bis(2-chloroethyl)ether#                            | <1           | <1           | <1              |  |         |        |        |
| Carbazole #   | <0.5         | <0.5         | <0.5            |  |         |        |        |
| libenzofuran <sup>#</sup>                           | <0.5         | <0.5         | <0.5            |  |         |        |        |
| exachlorobenzene#                                   | <1           | <1           | <1              |  |         |        |        |

| 4-Chlorophenylphenylether#              | <1+   | <1+   | <1+   |  |  |  | <1   | ug/l | TM16/PM30 |
|---|-------|-------|-------|--|--|--|------|------|-----------|
| 4-Nitroaniline                          | <0.5  | <0.5  | <0.5  |  |  |  | <0.5 | ug/l | TM16/PM30 |
| Azobenzene #                            | <0.5  | <0.5  | <0.5  |  |  |  | <0.5 | ug/l | TM16/PM30 |
| Bis(2-chloroethoxy)methane <sup>#</sup> | <0.5  | <0.5  | <0.5  |  |  |  | <0.5 | ug/l | TM16/PM30 |
| Bis(2-chloroethyl)ether #               | <1    | <1    | <1    |  |  |  | <1   | ug/l | TM16/PM30 |
| Carbazole <sup>#</sup>                  | <0.5  | <0.5  | <0.5  |  |  |  | <0.5 | ug/l | TM16/PM30 |
| Dibenzofuran <sup>#</sup>               | <0.5  | <0.5  | <0.5  |  |  |  | <0.5 | ug/l | TM16/PM30 |
| Hexachlorobenzene <sup>#</sup>          | <1    | <1    | <1    |  |  |  | <1   | ug/l | TM16/PM30 |
| Hexachlorobutadiene#                    | <1+   | <1+   | <1+   |  |  |  | <1   | ug/l | TM16/PM30 |
| Hexachlorocyclopentadiene               | <1    | <1    | <1    |  |  |  | <1   | ug/l | TM16/PM30 |
| Hexachloroethane #                      | <1    | <1    | <1    |  |  |  | <1   | ug/l | TM16/PM30 |
| Isophorone #                            | <0.5+ | <0.5+ | <0.5+ |  |  |  | <0.5 | ug/l | TM16/PM30 |
| N-nitrosodi-n-propylamine <sup>#</sup>  | <0.5  | <0.5  | <0.5  |  |  |  | <0.5 | ug/l | TM16/PM30 |
| Nitrobenzene <sup>#</sup>               | <1+   | <1+   | <1+   |  |  |  | <1   | ug/l | TM16/PM30 |
| Surrogate Recovery 2-Fluorobiphenyl     | 111   | 111   | 110   |  |  |  | <0   | %    | TM16/PM30 |
| Surrogate Recovery p-Terphenyl-d14      | 122   | 115   | 116   |  |  |  | <0   | %    | TM16/PM30 |
|   |       |       |       |  |  |  |      |      |           |
|   |       |       |       |  |  |  |      |      |           |
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Please see attached notes for all abbreviations and acronyms

Units

ug/l

LOD/LOR

<1

<0.5

<0.5

<0.5

<1

<0.5

<1

<0.5

<1

<10

<1

<1

<1

<1

<5

<1

<1.5

<1

<1

<1

<1

<1

<1

<1

<1

<0.5

<1

<1

<1

<1

Method

No.

TM16/PM30

M16/PM30

TM16/PM30

TM16/PM30

TM16/PM30

TM16/PM30

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TM16/PM30

TM16/PM30

TM16/PM30

| Client Name:<br>Reference:<br>Location:<br>Contact:<br>EMT Job No: | Arcadis<br>Redcar<br>Olivia Gra<br>22/18471 | ice          |              |  |  |
|--|---|--------------|--------------|--|--|
| EMT Sample No.   | 1-11  | 12-22        | 23-33        |  |  |
| Sample ID  | F-BH102s                                    | MS-BH13d     | MS-BH17d     |  |  |
| Depth  | 10.00                                       | 17.00        | 18.00        |  |  |
| COC No / misc  |   |              |              |  |  |
| Containers   | V H HN N P G                                | V H HN Z P G | V H HN Z P G |  |  |
| Sample Date  | 08/11/2022                                  | 01/11/2022   | 01/11/2022   |  |  |
| Sample Type  | Ground Water                                | Ground Water | Ground Water |  |  |

| Containers                              | 00/11/0000   | 04/44/2020   | 04/44/0000   | !  |              | '   | I'  | <sup> </sup>                                  |   | <b> </b> |            |          |               |
|---|--------------|--------------|--------------|--|--------------|-----|---|---|---|----------|------------|----------|---------------|
| Sample Date                             | 08/11/2022   | 01/11/2022   | 01/11/2022   |  |              |     | !   |   |   | <b> </b> | 1          |          |               |
| Sample Type                             | Ground Water | Ground Water | Ground Water | 1  |              |     | '   |   | '   |          |            |          |               |
| Batch Number                            | 1            | 1            | 1            | '  |              |     | '   | !   | '   |          | LOD/LOR    | Units    | Method        |
| Date of Receipt                         | 10/11/2022   | 10/11/2022   | 10/11/2022   |  |              |     | <u> </u>                                      |   |   |          | 200,200    |          | No.           |
| VOC MS                                  | Γ            | [ !          | [            | [ '  |              | [ ' | Γ '   | Γ '   | Г !   |          | Г !        |          |               |
| Dichlorodifluoromethane                 | <2           | <2           | <2           |  |              |     | '   |   |   |          | <2         | ug/l     | TM15/PM10     |
| Methyl Tertiary Butyl Ether #           | <0.1         | <0.1         | <0.1         |  |              |     | · · · · ·                                     |   | '   |          | <0.1       | ug/l     | TM15/PM10     |
| Chloromethane #                         | <3           | <3           | <3           | 1  |              |     | '   | !   | 1   |          | <3         | ug/l     | TM15/PM10     |
| Vinvl Chloride <sup>#</sup>             | <0.1         | <0.1         | <0.1         | 1 1  |              |     | '   |   | 1 1   |          | <0.1       | ug/l     | TM15/PM10     |
| Bromomethane                            | <1           | <1           | <1           | '  |              |     | '   | '   | '   |          | <1         | ug/l     | TM15/PM10     |
| Chloroethane <sup>#</sup>               | <3           | <3           | <3           |  |              | 1   |   |   |   |          | <3         | ug/l     | TM15/PM10     |
| T-i-blorofluoromothono <sup>#</sup>     | <3           | <3           | <3           | <sup> </sup>                                 |              |     | '   | !   | <sup> </sup>                                  |          | <3         | ug,i     | TM15/PM10     |
| Irichlorofluoromeunarie                 |              | ~ ~          | ~ ~          | <u>⊢</u> !                                   | <sup> </sup> | '   | <b>├</b> ───'                                 | <b>└───</b> ′                                 | <u>├</u>                                      |          |            | ug/i     | TIVITO/FIVITO |
| 1,1-Dichloroethene (1,1 DCE)            | <3           | <3           | <3           | '  |              |     | ļ!  | !   | <sup> </sup>                                  |          | <3         | ug/i     |               |
| Dichloromethane (DCM)"                  | <3           | <3           | <3           | <b>└───</b> ′                                |              |     | ļ'  | <u> </u>                                      | <b>└───</b> ′                                 | !        | <3         | ug/I     | TM15/PM10     |
| trans-1-2-Dichloroethene"               | <3           | <3           | <3           | Ļ!   |              | ļ   | ļ'  | <u> </u>                                      | Ļ!  |          | <3         | ug/I     | TM15/PM10     |
| 1,1-Dichloroethane #                    | <3           | <3           | <3           | ļ'   |              | '   | <u> '</u>                                     | <u> </u> '                                    | <u>ا</u> ــــــــــــــــــــــــــــــــــــ | <u> </u> | <3         | ug/l     | TM15/PM10     |
| cis-1-2-Dichloroethene #                | <3           | <3           | <3           | <u>ا</u>                                     |              | '   | <u>        '</u>                              | '   | <u>ا</u>                                      |          | <3         | ug/l     | TM15/PM10     |
| 2,2-Dichloropropane                     | <1           | <1           | <1           | <u> </u>                                     |              |     | '   | [!  | <u> </u>                                      |          | <1         | ug/l     | TM15/PM10     |
| Bromochloromethane #                    | <2           | <2           | <2           | !  |              |     | '   | !   | '   |          | <2         | ug/l     | TM15/PM10     |
| Chloroform <sup>#</sup>                 | <2           | <2           | <2           | '  |              |     | '   |   | '   |          | <2         | ug/l     | TM15/PM10     |
| 1,1,1-Trichloroethane#                  | <2           | <2           | <2           | [  |              |     | '   |   | · · · · ·                                     |          | <2         | ug/l     | TM15/PM10     |
| 1.1-Dichloropropene#                    | <3           | <3           | <3           | 1  |              |     | '   | '   | 1   |          | <3         | ug/l     | TM15/PM10     |
| Carbon tetrachloride #                  | <2           | <2           | <2           | 1 1  |              |     | '   |   | 1   |          | <2         | ug/l     | TM15/PM10     |
| 1.2 Dichloroethane <sup>#</sup>         | <2           | <2           | <2           |  |              |     | '   |   |   |          | <2         | ug/l     | TM15/PM10     |
| Panzono#                                | <0.5         | <0.5         | <0.5         | <sup> </sup>                                 |              |     | !   | !   | <sup> </sup>                                  |          | <0.5       | ug,.     | TM15/PM10     |
| Titlessethers (TCE)#                    | ~0.0         | -0.0         | -0.0         |  |              |     |   |   |   |          | -2         | ug/i     | TM15/DM10     |
| Trichloroetnene (TCE)                   | < <u>-</u>   | 50<br>-0     | 50<br>-0     | <u> </u> !                                   |              | '   | <b>↓</b> ′                                    | !   | <u> </u> !                                    |          | 50<br>-0   | ug/i     |               |
| 1,2-Dichloropropane "                   | <2           | <2           | <2           | <b>└───</b> ′                                |              |     | <b>↓</b> '                                    | ļ!  | <b>└───</b> ′                                 | !        | <2         | ug/i     | TM15/PM10     |
| Dibromomethane "                        | <3           | <3           | <3           | Ļ'   |              |     | ļ'  | <u>ا</u> ا                                    | Ļ'  | !        | <3         | ug/l     | ТМ15/РМ10     |
| Bromodichloromethane *                  | <2           | <2           | <2           | ļ'   |              | '   | <u>                                     </u>  | <u> </u> !                                    | ļ'  | L!       | <2         | ug/l     | TM15/PM10     |
| cis-1-3-Dichloropropene                 | <2           | <2           | <2           | <u>ا</u>                                     |              |     | <u>        '</u>                              | '   | '   |          | <2         | ug/l     | TM15/PM10     |
| Toluene <sup>#</sup>                    | <5           | <5           | <5           | <u> </u>                                     |              |     | '   | !   | <u> </u>                                      | <u> </u> | <5         | ug/l     | TM15/PM10     |
| trans-1-3-Dichloropropene               | <2           | <2           | <2           |  |              |     |   |   |   |          | <2         | ug/l     | TM15/PM10     |
| 1,1,2-Trichloroethane#                  | <2           | <2           | <2           | 1  |              |     | '   |   | 1   |          | <2         | ug/l     | TM15/PM10     |
| Tetrachloroethene (PCE)#                | <3           | <3           | <3           | 1  |              |     | · · · ·                                       |   | 1   |          | <3         | ug/l     | TM15/PM10     |
| 1.3-Dichloropropane#                    | <2           | <2           | <2           | 1 1  |              |     | '   |   | 1   |          | <2         | ug/l     | TM15/PM10     |
| Dibromochloromethane <sup>#</sup>       | <2           | <2           | <2           | 1 1  |              |     | '   |   | 1   |          | <2         | ua/l     | TM15/PM10     |
| 1.2 Dibromoethane <sup>#</sup>          | <2           | <2           | <2           |  |              |     |   |   |   |          | <2         | ug/l     | TM15/PM10     |
| Chierobonzono <sup>#</sup>              | <2           | <2           | <2           | <sup> </sup>                                 |              |     | '   | !   | <sup> </sup>                                  |          | <2         | ug,i     | TM15/PM10     |
| Chlorobenzene                           | -2           | -2           | -2           |  |              |     | '   | !   | '   |          | -2         | ug/i     | TM15/DM10     |
| 1,1,1,2-Tetrachioroethane               | 52<br>(1     | 5 <u>2</u>   | 5 <u>2</u>   | <u>                                     </u> |              | '   | <b>├</b> ───'                                 | <b>├</b> ───'                                 | <u> </u> !                                    |          | <u>~2</u>  | ug/i     | TIVITO/FIVITO |
| Ethylbenzene "                          | <1           | <1           | <1           | ļ!   |              |     | ļ'  | !   | ļ!  |          | <1         | ug/i     | TM15/PM10     |
| m/p-Xylene "                            | <2           | <2           | <2           | <b>└───</b> ′                                |              | ļ   | <u>ا</u> ــــــــــــــــــــــــــــــــــــ | <u>ا</u> ا                                    | <b>└───</b> ′                                 |          | <2         | ug/i     | TM15/PM10     |
| o-Xylene#                               | <1           | <1           | <1           | ļ!   |              | '   | ļ'  | ļ!  | ļ!  | !        | <1         | ug/l     | ТМ15/РМ10     |
| Styrene                                 | <2           | <2           | <2           | L'   |              | '   | <u>        '</u>                              | <u>                                     </u>  | L'  |          | <2         | ug/l     | TM15/PM10     |
| Bromoform <sup>#</sup>                  | <2           | <2           | <2           | <u> </u>                                     |              |     | '   | <u> </u> '                                    | <u> </u>                                      |          | <2         | ug/l     | TM15/PM10     |
| lsopropylbenzene <sup>#</sup>           | <3           | <3           | <3           | !  |              |     | '   | !   | !   |          | <3         | ug/l     | TM15/PM10     |
| 1,1,2,2-Tetrachloroethane               | <4           | <4           | <4           |  |              |     | !   |   |   |          | <4         | ug/l     | TM15/PM10     |
| Bromobenzene#                           | <2           | <2           | <2           | 1  |              |     | '   |   | 1   |          | <2         | ug/l     | TM15/PM10     |
| 1.2.3-Trichloropropane #                | <3           | <3           | <3           | 1 1  |              |     | '   |   | 1 1   |          | <3         | ug/l     | TM15/PM10     |
| Propylhenzene <sup>#</sup>              | <3           | <3           | <3           | '  |              |     | '   | '   | '   |          | <3         | 110/     | TM15/PM10     |
| 2 Chlorotoluene #                       | <3           | <3           | <3           |  |              | 1   | !   | !   | <sup> </sup>                                  |          | <3         | ug/l     | TM15/PM10     |
|   |              | -3           |              |  |              |     |   |   |   |          |            | ug/i     | TM15/DM10     |
| 1,3,5-i rimetnyibenzene                 | < <u>-</u>   | 50<br>70     | 50<br>70     | <u>                                     </u> | <sup> </sup> | '   | <b>├</b> ───'                                 | <b>└───</b> ′                                 | <u> </u> !                                    |          | < <u>-</u> | ug/i     | TIVITO/FIVITO |
| 4-Chlorotoluene                         | <3           | <3           | <3           | <sup> </sup>                                 |              |     | ļ!  | !   | I   |          | <3         | ug/i     | TM15/PM10     |
| tert-Butylbenzene"                      | <3           | <3           | <3           | Ļ'   |              | ļ'  | ļ'  | <u>ا</u> ــــــــــــــــــــــــــــــــــــ | Ļ'  | !        | <3         | ug/I     | ТМ15/РМ10     |
| 1,2,4-Trimethylbenzene*                 | <3           | <3           | <3           | L'   |              | '   | <u>                                     </u>  | <u> </u> !                                    | L'  | L!       | <3         | ug/l     | TM15/PM10     |
| sec-Butylbenzene #                      | <3           | <3           | <3           | <u> </u>                                     |              | '   | <u> '</u>                                     | [!  | <u> </u>                                      |          | <3         | ug/l     | TM15/PM10     |
| 4-Isopropyltoluene #                    | <3           | <3           | <3           | L!   |              |     | '   | !   | L!  | <u> </u> | <3         | ug/l     | TM15/PM10     |
| 1,3-Dichlorobenzene#                    | <3           | <3           | <3           | !  |              |     | '   |   | I!  | !        | <3         | ug/l     | TM15/PM10     |
| 1,4-Dichlorobenzene#                    | <3           | <3           | <3           | · · · · ·                                    |              |     | '   | · · · ·                                       | · · · · ·                                     |          | <3         | ug/l     | TM15/PM10     |
| n-Butylbenzene <sup>#</sup>             | <3           | <3           | <3           | 1 1  |              |     | '   | '   | 1   |          | <3         | ug/l     | TM15/PM10     |
| 1 2-Dichlorobenzene <sup>#</sup>        | <3           | <3           | <3           | 1  |              |     | '   |   | 1   |          | <3         | ua/l     | TM15/PM10     |
| 1 2-Dibromo-3-chloropropane             | <2           | <2           | <2           | '  |              |     | '   | '   | '   |          | <2         | <u>-</u> | TM15/PM10     |
| 1.2.4.Trichlorobenzene                  | <3           | <3           | <3           | <sup> </sup>                                 |              |     | !   | !   | <sup> </sup>                                  |          | <3         | ug,.     | TM15/PM10     |
|   | -3           | -3           | -3           |  |              | '   | !   |   | !   |          | -3         | ug/i     | TM45/DM10     |
| Hexachioropulaciene                     | < <u>-</u>   | 50<br>70     | 50<br>70     | <u>⊢</u> !                                   | <sup> </sup> | '   | <b>├</b> ───'                                 | <b>└───</b> ′                                 | <u>⊢</u> !                                    |          | 50<br>10   | ug/i     | TIVITO/FIVITO |
| Naphtnaiene                             | <2           | <2           | <2           | <sup> </sup>                                 |              |     | ļ!  | !   | I   |          | <2         | ug/i     | TM15/PM10     |
| 1,2,3-Trichlorobenzene                  | <3           | <3           | <3           | <b>└───</b> ′                                |              | ļ   | ļ'  | <u> </u>                                      | <b>└───</b> ′                                 |          | <3         | ug/I     | TM15/PM10     |
| Surrogate Recovery Toluene D8           | 91           | 93           | 101          | ļ!   | I            | '   | <u> '</u>                                     | <u>                                     </u>  | ļ'  | L!       | <0         | %        | TM15/PM10     |
| Surrogate Recovery 4-Bromofluorobenzene | 1 00 '       | 1 04 7       | 1 105        | 1 '  | 1            | 1   | 1 '   | 1 '   | 1 '   | 1 1      | 1 <0 '     | 1 %      | TM15/DM10     |

VOC Report :

Liquid

Please see attached notes for all abbreviations and acronyms

| NDP | Reason | Re | port |
|-----|--------|----|------|
|     |        |    |      |

Matrix : Liquid

| Client Name: | Arcadis      |
|--------------|--------------|
| Reference:   |              |
| Location:    | Redcar       |
| Contact:     | Olivia Grace |

| гит        |       |           |       | гит           |            |  |
|------------|-------|-----------|-------|---------------|------------|--|
| Job<br>No. | Batch | Sample ID | Depth | Sample<br>No. | Method No. | NDP Reason   |
| 22/18471   | 1     | MS-BH13d  | 17.00 | 12-22         | TM170/PM14 | Sample unsuitable for analysis by ICP-MS. Sample rescheduled for analysis by ICP-OES |
|            |       |           |       |               |            |  |
|            |       |           |       |               |            |  |
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|            |       |           |       |               |            |  |
|            |       |           |       |               |            |  |
|            |       |           |       |               |            |  |

Client Name: Arcadis

Reference:

Location: Redcar

Contact: Olivia Grace

| EMT<br>Job<br>No. | Batch | Sample ID | Depth | EMT<br>Sample<br>No. | Analysis         | Reason                       |
|-------------------|-------|-----------|-------|----------------------|------------------|------------------------------|
| 22/18471          | 1     | MS-BH13d  | 17.00 | 12-22                | Nitrate, Nitrite | Sample holding time exceeded |
| 22/18471          | 1     | MS-BH17d  | 18.00 | 23-33                | Nitrate, Nitrite | Sample holding time exceeded |
|                   |       |           |       |                      |                  |                              |
|                   |       |           |       |                      |                  |                              |
|                   |       |           |       |                      |                  |                              |
|                   |       |           |       |                      |                  |                              |
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|                   |       |           |       |                      |                  |                              |

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

Matrix : Liquid

## NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

**EMT Job No.:** 22/18471

#### SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at  $35^{\circ}C \pm 5^{\circ}C$  unless otherwise stated. Moisture content for CEN Leachate tests are dried at  $105^{\circ}C \pm 5^{\circ}C$ . Ash samples are dried at  $37^{\circ}C \pm 5^{\circ}C$ .

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

#### WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

#### STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

#### **DEVIATING SAMPLES**

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

#### SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

#### DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

## BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

#### NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

#### **REPORTS FROM THE SOUTH AFRICA LABORATORY**

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

#### **Measurement Uncertainty**

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

#### **Customer Provided Information**

Sample ID and depth is information provided by the customer.

| #       | ISO17025 (UKAS Ref No. 4225) accredited - UK.  |
|---------|--|
| SA      | ISO17025 (SANAS Ref No.T0729) accredited - South Africa  |
| В       | Indicates analyte found in associated method blank.  |
| DR      | Dilution required.   |
| М       | MCERTS accredited.   |
| NA      | Not applicable   |
| NAD     | No Asbestos Detected.  |
| ND      | None Detected (usually refers to VOC and/SVOC TICs).   |
| NDP     | No Determination Possible  |
| SS      | Calibrated against a single substance  |
| SV      | Surrogate recovery outside performance criteria. This may be due to a matrix effect.   |
| W       | Results expressed on as received basis.  |
| +       | AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.                           |
| >>      | Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher. |
| *       | Analysis subcontracted to an Element Materials Technology approved laboratory.   |
| AD      | Samples are dried at 35°C ±5°C   |
| со      | Suspected carry over   |
| LOD/LOR | Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS  |
| ME      | Matrix Effect  |
| NFD     | No Fibres Detected   |
| BS      | AQC Sample   |
| LB      | Blank Sample   |
| N       | Client Sample  |
| ТВ      | Trip Blank Sample  |
| OC      | Outside Calibration Range  |
| AA      | x4 Dilution  |
| AB      | x5 Dilution  |
| AC      | x10 Dilution   |
| AD      | x20 Dilution   |
| AE      | x50 Dilution   |
| AF      | x100 Dilution  |

### HWOL ACRONYMS AND OPERATORS USED

| HS    | Headspace Analysis.  |
|-------|--|
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent. |
| CU    | Clean-up - e.g. by florisil, silica gel.                             |
| 1D    | GC - Single coil gas chromatography.                                 |
| Total | Aliphatics & Aromatics.  |
| AL    | Aliphatics only.   |
| AR    | Aromatics only.  |
| 2D    | GC-GC - Double coil gas chromatography.                              |
| #1    | EH_Total but with humics mathematically subtracted                   |
| #2    | EU_Total but with fatty acids mathematically subtracted              |
| _     | Operator - underscore to separate acronyms (exception for +).        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total   |
| MS    | Mass Spectrometry.   |

EMT Job No: 22/18471

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description  | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|--|----------------------------------|------------------------------|--|------------------------------------|
| тмо             | Not available  | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  | Yes                              |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present. | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex. |                                  |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present. | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex. | Yes                              |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details  | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details  |                                  |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details  | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details  | Yes                              |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic Compounds (VOCs) by Headspace GC-MS.  | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   |                                  |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic<br>Compounds (VOCs) by Headspace GC-MS.   | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.   | Yes                              |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |

EMT Job No: 22/18471

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   | Yes                              |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.  | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996                           | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996                           | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |
| TM36            | Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics<br>(GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-<br>elutes with 3-methylpentane if present and therefore can give a false positive. Positive<br>MTBE results will be re-run using GC-MS to double check, when requested.                                | PM12                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.  | Yes                              |                              |  |                                    |
| TM37            | 2540D:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 160.4 (1971) and<br>SMEWW 2540E:1999 22nd Edition. Gravimetric determination of Total Suspended<br>Solids (TSS) and Volatile Suspended Solids (VSS). Sample is filtered through a 1.5um<br>pore size glass fibre filter and the resulting residue is dried and weighed at 105°C for<br>TSS and E50°C for VSS. | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM60            | TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.   | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM61            | Determination of Mercury by Cold Vapour Atomic Fluorescence - WATERS: Modified USEPA Method 245.7, Rev 2, Feb 2005. SOILS: Modified USEPA Method 7471B, Rev.2, Feb 2007  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |

EMT Job No: 22/18471

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM73            | Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-<br>3:1990. Determination of pH by Metrohm automated probe analyser.  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM75            | Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.  | PM0                                    | No preparation is required.   | Yes                              |                              |  |                                    |
| TM89            | Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection<br>Analyser. Where WAD cyanides are required a Ligand displacement step is carried out<br>before analysis.                             | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM107           | Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser   | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM170           | Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass<br>Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method<br>6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |



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W: www.element.com



Seven samples were received for analysis on 13th January, 2023 of which seven were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

5.60-20

Simon Gomery BSc Project Manager

Please include all sections of this report if it is reproduced

Arcadis

| Client Name:                          | Arcadis          |                  |                  |                  |                  |                  | Report :                             | Liquid     |              |                  |               |              |               |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------|------------|--------------|------------------|---------------|--------------|---------------|
| Reference:                            | 10035117         | ,                |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
| Location:                             | Redcar L\        | NoW              |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
| Contact:                              | Jonathan         | Miles            |                  |                  |                  |                  | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bott      | le, P=plastic | bottle       |               |
| EMT Job No:                           | 23/527           |                  |                  |                  |                  |                  | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN0 <sub>3</sub> |               |              |               |
| EMT Sample No.                        | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91                                |            |              |                  |               |              |               |
| Sample ID                             | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S                             |            |              |                  |               |              |               |
| Depth                                 | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00                                 |            |              |                  | Please se     | o attached n | otos for all  |
| COC No / miss                         |                  |                  |                  |                  |                  |                  |                                      |            |              |                  | abbrevia      | ations and a | cronyms       |
| COC NO7 misc                          |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
| Containers                            | V H HN N Z P G                       |            |              |                  |               |              |               |
| Sample Date                           | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00                     |            |              |                  |               |              |               |
| Sample Type                           | Ground Water                         |            |              |                  |               |              |               |
| Batch Number                          | 1                | 1                | 1                | 1                | 1                | 1                | 1                                    |            |              |                  |               | Units        | Method        |
| Date of Receipt                       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023                           |            |              |                  |               |              | No.           |
| Dissolved Aluminium                   | 7.2              | 301              | NDP              | 268              | 386              | 54.6             | 87.8                                 |            |              |                  | <1.5          | ug/l         | TM170/PM14    |
| Dissolved Arsenic                     | 7.4              | 2.5              | NDP              | 13.7             | 19.5             | 14.9             | 5.9                                  |            |              |                  | <0.9          | ug/l         | TM170/PM14    |
| Dissolved Boron                       | 312              | 83               | NDP              | 185              | 32               | 102              | 78                                   |            |              |                  | <12           | ug/l         | TM170/PM14    |
| Dissolved Cadmium                     | 0.05             | 0.06             | NDP              | 0.03             | 0.05             | <0.03            | <0.03                                |            |              |                  | <0.03         | ug/l         | TM170/PM14    |
| Total Dissolved Chromium              | 6.9              | 8.3              | NDP              | 3.2              | 6.3              | 1.2              | 7.8                                  |            |              |                  | <0.2          | ug/l         | TM170/PM14    |
| Dissolved Copper                      | <1               | 4                | NDP              | <1               | 1                | <1               | 4                                    |            |              |                  | <1            | ug/l         | TM170/PM14    |
| Total Dissolved Iron                  | 8.5              | 51.1             | NDP              | 57.2             | 17.0             | 39.4             | 32.7                                 |            |              |                  | <4.7          | ua/l         | TM170/PM14    |
| Dissolved Lead                        | <0.4             | <0.4             | NDP              | <0.4             | <0.4             | <0.4             | <0.4                                 |            |              |                  | <0.4          | ua/l         | TM170/PM14    |
| Dissolved Manganese                   | <1.5             | 1.7              | NDP              | 7.1              | 1.8              | 4.3              | 4.8                                  |            |              |                  | <1.5          | ua/l         | TM170/PM14    |
| Dissolved Molvbdenum                  | 220              | 229              | NDP              | 113              | 180              | 39.8             | 39.8                                 |            |              |                  | <0.2          | ua/l         | TM170/PM14    |
| Dissolved Nickel                      | 0.9              | 3.4              | NDP              | 1.2              | 5.8              | 1.0              | 1.2                                  |            |              |                  | <0.2          | ua/l         | TM170/PM14    |
| Dissolved Zinc                        | <1.5             | 1.8              | NDP              | 3.4              | 2.0              | 2.2              | 5.8                                  |            |              |                  | <1.5          | ua/l         | TM170/PM14    |
|                                       |                  |                  |                  | -                |                  |                  |                                      |            |              |                  |               | 5            |               |
| Dissolved Aluminium <sup>#</sup>      | -                | -                | 148              | -                | -                | -                | -                                    |            |              |                  | <1.5          | ua/l         | TM30/PM14     |
|                                       | -                | -                | 4.9              | -                | -                | -                | -                                    |            |              |                  | <0.9          | g.           | TM30/PM14     |
| Dissolved Roron                       | -                | -                | 176              | -                | -                | -                | -                                    |            |              |                  | <12           | ug/l         | TM30/PM14     |
| Dissolved Cadmium <sup>#</sup>        | -                | -                | <0.03            | -                | -                | -                | -                                    |            |              |                  | <0.03         | <u>-</u>     | TM30/PM14     |
| Dissolved Calcium                     | -                | -                | -                | 113              | 170              | -                | -                                    |            |              |                  | <0.2          | ma/l         | TM30/PM14     |
| Dissolved Calcium <sup>#</sup>        | 303              | 514.0            | 424.0            | -                | -                | 377              | 497                                  |            |              |                  | <0.2          | mg/l         | TM30/PM14     |
| Total Dissolved Chromium <sup>#</sup> | -                |                  | AB<br>6.5        | -                | -                | -                |                                      |            |              |                  | <0.2          | ug/l         | TM30/PM14     |
| Dissolved Coppor <sup>#</sup>         | _                | -                | <3               | -                | -                | -                | -                                    |            |              |                  | <3            | ug/l         | TM30/PM14     |
| Total Dissolved Iron #                | -                | -                | 22.6             | -                | -                | -                | -                                    |            |              |                  | <4 7          | ug/l         | TM30/PM14     |
| Dissolved Lead #                      | _                | -                | <0.4             | -                | -                | -                | -                                    |            |              |                  | <0.4          | ug/l         | TM30/PM14     |
| Dissolved Magnesium                   | 3.7              | <0.1             | <0.4             | 0.4              | <0.1             | <0.1             | 0.2                                  |            |              |                  | <0.1          | mg/l         | TM30/PM14     |
| Dissolved Magnesiam                   | -                | -0.1             | <1.5             | -                | -0.1             | -0.1             | 0.2                                  |            |              |                  | <1.5          | ug/l         | TM30/PM14     |
| Dissolved Malybdenum <sup>#</sup>     | -                | -                | 187              | _                | -                |                  | -                                    |            |              |                  | <0.2          | ug/l         | TM30/PM14     |
| Dissolved Nickel <sup>#</sup>         | _                | -                | 4.2              | _                | _                | -                | -                                    |            |              |                  | <0.2          | ug/l         | TM30/PM14     |
| Dissolved Nickel                      | 70.9             | 76.2             | 75.0             | 32.7             | 70.1             | 01.7             | 00.7                                 |            |              |                  | <0.2          | mg/l         | TM30/PM14     |
| Dissolved Silicon                     | 7510             | 4680             | 1010             | 7640             | 10300            | 6070             | 6550                                 |            |              |                  | <100          | ug/l         | TM30/PM14     |
| Dissolved Sodium                      | 7510             | 4000             | 1310             | 027              | 54.7             | 64.2             | 53.7                                 |            |              |                  | <0.1          | mg/l         | TM30/PM14     |
| Dissolved Sodium <sup>#</sup>         | 235              | 382              | 802              | 52.1             | 54.7             | 04.2             |                                      |            |              |                  | <0.1          | mg/l         | TM30/PM14     |
| Dissolved Sociality                   | 23344            | JOZAB            | 002 <b>AB</b>    | -                | -                | -                | -                                    |            |              |                  | <0.1          | ing/i        | TM20/DM14     |
| Margura Dissolved by CVAE             | -0.01            | - 0.01           | 2.5              | -                | -                | -0.01            | -0.01                                |            |              |                  | <0.01         | ug/i         |               |
| Total Sulphur as S                    | 271.00           | 208.00           | 142.00           | 122.00           | 166.00           | 220.00           | 280.00                               |            |              |                  | <0.01         | ug/i         | TM20/DM14     |
|                                       | 271.00 <b>AB</b> | 308.00AB         | 142.00 <b>AB</b> | 122.00 <b>AB</b> | 100.00AB         | 339.00AB         | 389.00AB                             |            |              |                  | <0.01         | mg/i         | 110130/P10114 |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |                  |               |              |               |
|                                       | 1                | 1                | 1                | 1                | 1                |                  |                                      |            |              |                  |               |              | 1             |

| Client Name:                            | Arcadis          |                  |                  |                  |                  |                  | Report :                             | Liquid     |              |                   |               |              |              |
|---|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------|------------|--------------|-------------------|---------------|--------------|--------------|
| Reference:                              | 10035117         | •                |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Location:                               | Redcar L\        | NoW              |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Contact:                                | Jonathan         | Miles            |                  |                  |                  |                  | Liquids/pr                           | oducts: V= | 40ml vial, G | Geglass bott      | le, P=plastic | bottle       |              |
| EMI JOD NO:                             | 23/527           | 1                |                  |                  |                  |                  | H=H <sub>2</sub> SO <sub>4</sub> , . | Z=ZnAc, N= | NaOH, HN=    | =HNU <sub>3</sub> | -             |              |              |
| EMT Sample No.                          | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91                                |            |              |                   |               |              |              |
| Sample ID                               | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S                             |            |              |                   |               |              |              |
| Depth                                   | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00                                 |            |              |                   | Please se     | e attached n | otes for all |
| COC No / misc                           |                  |                  |                  |                  |                  |                  |                                      |            |              |                   | abbrevi       | ations and a | cronyms      |
| Containora                              |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Containers                              | VIIIIIVIVEI O    | VIIIIIVIZIO      | VIIIIIVIZI       | VIIIIIVIZIO      | VIIIIIIIII       | VIIIIIIIII       | VIIIIIIIII                           |            |              |                   |               |              |              |
| Sample Date                             | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00                     |            |              |                   |               |              |              |
| Sample Type                             | Ground Water                         |            |              |                   |               |              |              |
| Batch Number                            | 1                | 1                | 1                | 1                | 1                | 1                | 1                                    |            |              |                   | LOD/LOR       | Units        | Method       |
| Date of Receipt                         | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023                           |            |              |                   |               |              | NO.          |
| PAH MS                                  |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Naphthalene                             | <0.1             | 0.1              | <0.1             | <0.1             | 0.4              | 0.6              | <0.1                                 |            |              |                   | <0.1          | ug/l         | TM4/PM30     |
| Acenaphthylene                          | 0.639            | 0.037            | <0.005           | 0.034            | <0.005           | <0.005           | 0.081                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Acenaphthene                            | 0.394            | 0.035            | 0.026            | 0.051            | 0.594            | 0.343            | 0.285                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Fluorene                                | 0.720            | 0.048            | 0.026            | 0.038            | 0.187            | 0.007            | 0.112                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Phenanthrene                            | 4.48             | 0.217            | 0.123            | 0.243            | 0.644            | 0.091            | 0.008                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Anthracene                              | 1.02             | 0.036            | 0.022            | 0.076            | 0.091            | 0.020            | 0.018                                |            |              |                   | < 0.005       | ug/l         | TM4/PM30     |
|   | 2.47             | 0.111            | 0.057            | 0.641            | 0.413            | 0.034            | 0.034                                |            |              |                   | <0.005        | ug/i         | TM4/PM30     |
|   | 1.00             | 0.007            | 0.055            | 0.005            | 0.291            | 0.034            | 0.020                                |            |              |                   | <0.005        | ug/l         | TM4/PW30     |
| Chrysene                                | 1.22             | 0.020            | 0.019            | 0.299            | 0.030            | 0.008            | 0.008                                |            |              |                   | <0.005        | ug/l         | TM4/PW30     |
| Benzo(bk)fluoranthene                   | 0.880            | 0.032            | 0.021            | 0.545            | 0.020            | <0.007           | 0.009                                |            |              |                   | <0.003        | ug/l         | TM4/PM30     |
| Benzo(a)pyrene                          | 0.607            | 0.014            | 0.012            | 0.233            | <0.005           | < 0.005          | < 0.005                              |            |              |                   | < 0.005       | ug/l         | TM4/PM30     |
| Indeno(123cd)pyrene                     | 0.216            | 0.009            | 0.013            | 0.213            | < 0.005          | < 0.005          | < 0.005                              |            |              |                   | < 0.005       | ug/l         | TM4/PM30     |
| Dibenzo(ah)anthracene                   | 0.058            | <0.005           | <0.005           | 0.041            | <0.005           | <0.005           | <0.005                               |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Benzo(ghi)perylene                      | 0.247            | 0.008            | 0.010            | 0.166            | <0.005           | <0.005           | <0.005                               |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| PAH 16 Total                            | 17.111           | 0.796            | 0.414            | 3.642            | 2.697            | 1.144            | 0.594                                |            |              |                   | <0.173        | ug/l         | TM4/PM30     |
| Benzo(b)fluoranthene                    | 0.634            | 0.025            | 0.023            | 0.474            | 0.015            | <0.008           | <0.008                               |            |              |                   | <0.008        | ug/l         | TM4/PM30     |
| Benzo(k)fluoranthene                    | 0.246            | 0.010            | 0.009            | 0.185            | <0.008           | <0.008           | <0.008                               |            |              |                   | <0.008        | ug/l         | TM4/PM30     |
| PAH Surrogate % Recovery                | 75               | 85               | 84               | 87               | 88               | 82               | 85                                   |            |              |                   | <0            | %            | TM4/PM30     |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| VOC TICs                                | ND               | ND               | See Attached     | ND               | ND               | ND               | ND                                   |            |              |                   |               | None         | TM15/PM10    |
| Methyl Tertiary Butyl Ether             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1                                 |            |              |                   | <0.1          | ug/l         | TM15/PM10    |
| Benzene                                 | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5                                 |            |              |                   | <0.5          | ug/l         | TM15/PM10    |
| Toluene                                 | <5               | <5               | <5               | <5               | <5               | <5               | <5                                   |            |              |                   | <5            | ug/l         | TM15/PM10    |
|   | <1               | <1               | <1               | <1               | <1               | <1               | <1                                   |            |              |                   | <1            | ug/i         | TM15/PM10    |
|   | ~2               | ~2               | ~2               | ~2               | <2               | ~2               | ~2                                   |            |              |                   | ~2            | ug/l         | TM15/PM10    |
| Surrogate Recovery Toluene D8           | 100              | 102              | 104              | 102              | 103              | 103              | 104                                  |            |              |                   | <0            | 49/1<br>%    | TM15/PM10    |
| Surrogate Recovery 4-Bromofluorobenzene | 108              | 102              | 105              | 102              | 104              | 101              | 105                                  |            |              |                   | <0            | %            | TM15/PM10    |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| SVOC TICs                               | ND               | ND               | See Attached     | ND               | ND               | ND               | ND                                   |            |              |                   |               | None         | TM16/PM30    |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   | 1                | 1                | 1                | 1                |                  | 1                | 1                                    | 1          |              |                   |               |              | 1            |

| Client Name:                          | Arcadis          |                  |                  |                  |                  |                  | Report :                             | Liquid     |              |             |              |              |                        |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------|------------|--------------|-------------|--------------|--------------|------------------------|
| Reference:                            | 10035117         | 7                |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Location:                             | Redcar L         | WoW              |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Contact:                              | Jonathan         | Miles            |                  |                  |                  |                  | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bott | e, P=plastic | bottle       |                        |
| EMT Job No:                           | 23/527           |                  |                  |                  |                  |                  | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN03        |              |              |                        |
| EMT Sample No.                        | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91                                |            |              |             |              |              |                        |
| Sample ID                             | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S                             |            |              |             |              |              |                        |
| Depth                                 | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00                                 |            |              |             | Diagon on    | o ottoobod n | ataa far all           |
| COC No / miss                         |                  |                  |                  |                  |                  |                  |                                      |            |              |             | abbrevi      | ations and a | cronyms                |
| COC NO / IIISC                        |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Containers                            | V H HN N Z P G                       |            |              |             |              |              |                        |
| Sample Date                           | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00                     |            |              |             |              |              |                        |
| Sample Type                           | Ground Water                         |            |              |             |              |              |                        |
| Batch Number                          | 1                | 1                | 1                | 1                | 1                | 1                | 1                                    |            |              |             |              |              | Mathad                 |
| Date of Receipt                       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023                           |            |              |             | LOD/LOR      | Units        | No.                    |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Alinhatics                            |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
|                                       | <10              | <10              | 45               | 22               | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/DM12              |
| >03-08                                | <10              | <10              | 40               | 10               | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         |                        |
| >00-08                                | <10              | <10              | 60               | 12               | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         | TM36/PM12              |
|                                       | 12               | 21               | 504              | 42               | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         |                        |
| >010-012                              | <5               | <5               | <5               | <5               | <5               | <5               | <5                                   |            |              |             | <5           | ug/i         | TM5/PM16/PM30          |
| >C12-C16                              | 160              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >016-021                              | 1860             | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         | TM5/PM16/PM30          |
| >C21-C35                              | 840              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >C35-C44                              | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| Total aliphatics C5-44                | 2872             | 27               | 697              | 76               | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Aromatics                             |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| >C5-EC7                               | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/PM12              |
| >EC7-EC8                              | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/PM12              |
| >EC8-EC10                             | <10              | <10              | 57               | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/PM12              |
| >EC10-EC12                            | <5               | <5               | <5               | <5               | <5               | <5               | <5                                   |            |              |             | <5           | ug/l         | TM5/PM16/PM30          |
| >EC12-EC16                            | 60               | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >EC16-EC21                            | 700              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >EC21-EC35                            | 270              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >EC35-EC44                            | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| Total aromatics C5-44                 | 1030             | <10              | 57               | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Total aliphatics and aromatics(C5-44) | 3902             | 27               | 754              | 76               | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/TM56/PM12/PM16/PM3 |
| Resorcinol                            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Catechol                              | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Phenol                                | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| m/p-cresol                            | <0.02            | <0.02            | <0.02            | <0.02            | <0.02            | <0.02            | <0.02                                |            |              |             | <0.02        | mg/l         | TM26/PM0               |
| o-cresol                              | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Total cresols                         | <0.03            | <0.03            | <0.03            | <0.03            | <0.03            | <0.03            | <0.03                                |            |              |             | <0.03        | mg/l         | TM26/PM0               |
| Xylenols                              | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06                                |            |              |             | <0.06        | mg/l         | TM26/PM0               |
| 1-naphthol                            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| 2,3,5-trimethyl phenol                | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| 2-isopropylphenol                     | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Total Speciated Phenols HPLC          | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1                                 |            |              |             | <0.1         | mg/l         | TM26/PM0               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Sulphate as SO4                       | 622              | 776              | 367              | 343              | 430              | 867              | 1010                                 |            |              |             | <0.5         | mg/l         | TM38/PM0               |
| Chloride                              | 383              | 504              | 1110             | 125              | 54.3             | 74.9             | 59.1                                 |            |              |             | <0.3         | mg/l         | TM38/PM0               |
| Nitrate as NO3                        | 0.4              | <0.2             | <0.2             | <0.2             | 0.3              | <0.2             | 3.9                                  |            |              |             | <0.2         | mg/l         | TM38/PM0               |
| Nitrate as NO3 <sup>#</sup>           | <0.2             | -                | -                | -                | <0.2             | -                | 4.4                                  |            |              |             | <0.2         | mg/l         | TM38/PM0               |
| Nitrite as NO2                        | -                | <0.02            | 0.08             | <0.02            | -                | <0.02            | -                                    |            |              |             | <0.02        | mg/l         | TM38/PM0               |
| Nitrite as NO2 <sup>#</sup>           | <0.02            | -                | -                | -                | <0.02            | -                | 2.68                                 |            |              |             | <0.02        | mg/l         | TM38/PM0               |
| Ortho Phosphate as PO4                | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06                                |            |              |             | <0.06        | mg/l         | TM38/PM0               |
| Inorganic Nitrogen                    | 2.62             | 2.67             | 1.75             | 0.07             | 5.11             | 3.07             | 2.55                                 |            |              |             | <0.05        | mg/l         | TM38/PM0               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |

| Client Name:               | Arcadis             |                     |                      |                     |                      |                      | Report :                             | Liquid     |              |              |              |               |              |
|----------------------------|---------------------|---------------------|----------------------|---------------------|----------------------|----------------------|--------------------------------------|------------|--------------|--------------|--------------|---------------|--------------|
| Reference:                 | 10035117            | 7                   |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Location:                  | Redcar L\           | WoW                 |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Contact:                   | Jonathan            | Miles               |                      |                     |                      |                      | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bottl | e, P=plastic | bottle        |              |
| EMT Job No:                | 23/527              |                     |                      |                     |                      |                      | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN03         |              |               |              |
| EMT Sample No.             | 1-13                | 14-26               | 27-39                | 40-52               | 53-65                | 66-78                | 79-91                                |            |              |              |              |               |              |
| Sample ID                  | F-BH101D            | F-BH101S            | F-BH102D             | F-BH102S            | MS/BH14              | MS/BH15D             | MS/BH15S                             |            |              |              |              |               |              |
| Depth                      | 25.50               | 7.00                | 28.50                | 10.00               | 6.50                 | 8.00                 | 4.00                                 |            |              |              | Ploase se    | o attached n  | otos for all |
| COC No / misc              |                     |                     |                      |                     |                      |                      |                                      |            |              |              | abbrevi      | ations and ad | cronyms      |
| Containers                 |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Containers                 | VIIII NZT G         |                     | VIIIIWWZE G          | VIIIIWWZE G         | VIIII NZT G          | VIIII NZ I G         | VIIIIWAZI G                          |            |              |              |              |               |              |
| Sample Date                | 09/01/2023 14:30    | 09/01/2023 11:30    | 09/01/2023 16:25     | 10/01/2023 12:30    | 10/01/2023 14:30     | 10/01/2023 15:45     | 10/01/2023 17:00                     |            |              |              |              |               |              |
| Sample Type                | Ground Water        | Ground Water        | Ground Water         | Ground Water        | Ground Water         | Ground Water         | Ground Water                         |            |              |              |              |               |              |
| Batch Number               | 1                   | 1                   | 1                    | 1                   | 1                    | 1                    | 1                                    |            |              |              | LOD/LOR      | Units         | Method       |
| Date of Receipt            | 13/01/2023          | 13/01/2023          | 13/01/2023           | 13/01/2023          | 13/01/2023           | 13/01/2023           | 13/01/2023                           |            |              |              |              |               | No.          |
| Free Cyanide               | 0.156 <sub>AE</sub> | 0.037 <sub>AA</sub> | 0.064 <sub>AC</sub>  | 0.141 <sub>AE</sub> | 0.036 <sub>AA</sub>  | 0.158 <sub>AD</sub>  | <0.010 <sub>AB</sub>                 |            |              |              | <0.001       | mg/l          | TM89/PM0     |
| Total Cyanide              | 0.156 <sub>AE</sub> | 0.051 <sub>AA</sub> | 0.067 <sub>AC</sub>  | 0.141 <sub>AE</sub> | 0.035 <sub>AA</sub>  | 0.186 <sub>AD</sub>  | 0.018 <sub>AB</sub>                  |            |              |              | <0.001       | mg/l          | TM89/PM0     |
| Complex Cyanide            | <0.050AE            | 0.014 <sub>AA</sub> | <0.015 <sub>AC</sub> | <0.050AE            | <0.005 <sub>AA</sub> | <0.030 <sub>AD</sub> | 0.018 <sub>AB</sub>                  |            |              |              | <0.001       | mg/l          | TM89/PM0     |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Ammoniacal Nitrogen as N   | 2.62                | 2.67                | 1.72                 | 0.07                | 5.11                 | 3.07                 | 0.73                                 |            |              |              | <0.03        | mg/l          | TM38/PM0     |
| Total Alkalinity as CaCO3  | 66                  | 228                 | 778                  | 144                 | 214                  | 58                   | 62                                   |            |              |              | <1           | mg/l          | TM75/PM0     |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              | 0             |              |
| Dibutyltin                 | <0.1                | <0.1                | <0.1                 | <0.1                | <0.1                 | <0.1                 | <0.1                                 |            |              |              | <0.1         | ug/l          | TM94/PM48    |
| Tributyltin                | <0.1                | <0.1                | <0.1                 | <0.1                | <0.1                 | <0.1                 | <0.1                                 |            |              |              | <0.1         | ug/l          | TM94/PM48    |
| Triphenyltin               | <0.1                | <0.1                | <0.1                 | <0.1                | <0.1                 | <0.1                 | <0.1                                 |            |              |              | <0.1         | ug/l          | TM94/PM48    |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              | Ū             |              |
| Sulphide                   | <0.01               | <0.01               | 0.01                 | 0.01                | <0.01                | 0.02                 | <0.01                                |            |              |              | <0.01        | mg/l          | TM107/PM0    |
| Thiocyanate                | <0.02               | 0.02                | 0.06                 | 0.04                | 0.21                 | 0.28                 | 0.15                                 |            |              |              | <0.02        | mg/l          | TM107/PM0    |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Dissolved Organic Carbon   | 20                  | 62                  | 390                  | 99                  | 9                    | 6                    | 5                                    |            |              |              | <2           | mg/l          | TM60/PM0     |
| Dissolved Inorganic Carbon | <2                  | <2                  | <2                   | 2                   | <2                   | <2                   | <2                                   |            |              |              | <2           | mg/l          | TM60/PM0     |
| pН                         | 9.92                | 11.4                | 12.1                 | 11.2                | 11.3                 | 9.90                 | 10.2                                 |            |              |              | <0.01        | pH units      | TM73/PM0     |
| Total Suspended Solids     | 69                  | 60                  | 16                   | 91                  | 12                   | 68                   | 24                                   |            |              |              | <10          | mg/l          | TM37/PM0     |
| Total Cations              | 27.46               | 44.22               | 57.96                | 10.54               | 12.89                | 23.95                | 29.47                                |            |              |              | <0.00        | mmolc/l       | TM30/PM14    |
| Total Anions               | 25.08               | 34.93               | 54.55                | 13.55               | 14.77                | 21.32                | 24.00                                |            |              |              | <0.00        | mmolc/l       | TM0/PM0      |
| % Cation Excess            | 4.53                | 11.74               | 3.03                 | -12.49              | -6.80                | 5.81                 | 10.23                                |            |              |              |              | %             | TM0/PM0      |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |

| Client Name: |  |
|--------------|--|
| Reference:   |  |
| Location:    |  |
| Contact:     |  |
| EMT Job No:  |  |

Arcadis 10035117 Redcar LWoW Jonathan Miles 23/527

SVOC Report : Liquid

| EMT Sample No.                                 | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91            |  |  |  |           |              |               |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|--|--|-----------|--------------|---------------|
| Sample ID                                      | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S         |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
| Depth  | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00             |  |  |  | Please se | e attached r | notes for all |
| COC No / MISC<br>Containers                    | V H HN N Z P G   | VHHNNZPG         |  |  |  | abbievie  |              | cionyma       |
| Sample Date                                    | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00 |  |  |  |           |              |               |
| Sample Type                                    | Ground Water     |  |  |  |           |              |               |
| Batch Number                                   | 1                | 1                | 1                | 1                | 1                | 1                | 1                |  |  |  | LOD/LOR   | Units        | Method        |
| Date of Receipt                                | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       |  |  |  |           |              | NO.           |
| Phenols  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
| 2-Chlorophenol <sup>#</sup>                    | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 2-Methylphenol <sup>#</sup>                    | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 2-Nitrophenol                                  | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 2,4-Dichlorophenol <sup>#</sup>                | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 2,4-Dimetnyipnenoi                             | <0.5             | <0.5             | <0.5             | <1               | <1               | <1               | <0.5             |  |  |  | <0.5      | ug/i         | TM16/PM30     |
| 2,4,6-Trichlorophenol                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Chloro-3-methylphenol#                       | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 4-Methylphenol                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Nitrophenol                                  | <10              | <10              | <10              | <10              | <10              | <10              | <10              |  |  |  | <10       | ug/l         | TM16/PM30     |
| Pentachlorophenol                              | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| PAHs   |                  |                  |                  | ~1               | ~1               | ~1               |                  |  |  |  | ~1        | ug/i         | 110110/P1030  |
| 2-Chloronaphthalene <sup>#</sup>               | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 2-Methylnaphthalene <sup>#</sup><br>Phthalates | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Bis(2-ethylhexyl) phthalate                    | <5               | <5               | <5               | <5               | <5               | <5               | <5               |  |  |  | <5        | ug/l         | TM16/PM30     |
| Butylbenzyl phthalate                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Di-n-butyl phthalate <sup>#</sup>              | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             |  |  |  | <1.5      | ug/l         | TM16/PM30     |
| Di-n-Octyl phthalate                           | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Dietnyl prinalate                              | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/i<br>ug/i | TM16/PM30     |
| Other SVOCs                                    | -                |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
| 1,2-Dichlorobenzene #                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 1,2,4-Trichlorobenzene <sup>#</sup>            | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 1,3-Dichlorobenzene <sup>#</sup>               | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 1,4-Dichlorobenzene "                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 2 4-Dinitrotoluene <sup>#</sup>                | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/i<br>ug/i | TM16/PM30     |
| 2,6-Dinitrotoluene                             | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 3-Nitroaniline                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Bromophenylphenylether #                     | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Chloroaniline                                | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Chlorophenylphenylether"<br>4-Nitroaniline   | <0.5             | <0.5             | <0.5             | <1               | <1               | <1               | <0.5             |  |  |  | <0.5      | ug/i         | TM16/PM30     |
| Azobenzene <sup>#</sup>                        | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Bis(2-chloroethoxy)methane#                    | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Bis(2-chloroethyl)ether#                       | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Carbazole <sup>#</sup>                         | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Dibenzofuran <sup>#</sup>                      | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| HexachloropenZene *                            | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/i<br>ug/i | TM16/PM30     |
| Hexachlorocyclopentadiene                      | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Hexachloroethane #                             | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Isophorone #                                   | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| N-nitrosodi-n-propylamine <sup>#</sup>         | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Nitrobenzene *                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Surrogate Recovery p-Terphenyl-d14             | 125              | 117              | 102              | 122              | 102              | 107              | 105              |  |  |  | <0        | %            | TM16/PM30     |
|  | 120              |                  | 120              |                  | 120              | 120              | 120              |  |  |  | Ū         | ,,,          |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  | L                | L                |                  |                  |                  |  |  |  |           |              | 1             |

| Client Name: |  |
|--------------|--|
| Reference:   |  |
| Location:    |  |
| Contact:     |  |
| EMT Job No:  |  |

Arcadis 10035117 Redcar LWoW Jonathan Miles 23/527

VOC Report : Liquid

| EMT Sample No.                               | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91            |  |  |           |              |              |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|--|-----------|--------------|--------------|
|  |                  |                  |                  |                  |                  |                  |                  |  |  |           |              |              |
| Sample ID                                    | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S         |  |  |           |              |              |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |           |              |              |
| Depth  | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00             |  |  | Please se | e attached r | otes for all |
| COC No / misc                                |                  |                  |                  |                  |                  |                  |                  |  |  | abbievi   | auons anu a  | cionyms      |
| Sample Date                                  | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00 |  |  |           |              |              |
| Sample Type                                  | Ground Water     |  |  |           |              |              |
| Batch Number                                 | 1                | 1                | 1                | 1                | 1                | 1                | 1                |  |  |           | Linite       | Method       |
| Date of Receipt                              | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       |  |  | LOD/LOR   | Units        | No.          |
| VOC MS                                       |                  |                  |                  |                  |                  |                  |                  |  |  |           |              |              |
| Dichlorodifluoromethane                      | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Nethyl Tertiary Butyl Ether                  | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             |  |  | <0.1      | ug/l         | TM15/PM10    |
|  | <0 1             | <0.1             | <0.1             | <0.1             | <0 1             | <0 1             | <0.1             |  |  | <0 1      | ug/l         | TM15/PM10    |
| Bromomethane                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| Chloroethane                                 | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Trichlorofluoromethane                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,1-Dichloroethene (1,1 DCE)                 | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Dichloromethane (DCM)                        | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| rans-1-2-Dichloroethene                      | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| cis-1-2-Dichloroethene                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/i<br>ug/i | TM15/PM10    |
| 2,2-Dichloropropane                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| Bromochloromethane                           | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Chloroform                                   | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,1,1-Trichloroethane                        | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,1-Dichloropropene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Carbon tetrachloride                         | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Renzene                                      | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5      | ug/l         | TM15/PM10    |
| Trichloroethene (TCE)                        | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,2-Dichloropropane                          | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Dibromomethane                               | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Bromodichloromethane                         | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| cis-1-3-Dichloropropene                      | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| I oluene                                     | <5               | <5               | <5               | <5               | <5               | <5               | <5               |  |  | <5        | ug/l         | TM15/PM10    |
| 1.1.2-Trichloroethane                        | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Tetrachloroethene (PCE)                      | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,3-Dichloropropane                          | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Dibromochloromethane                         | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,2-Dibromoethane                            | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Chlorobenzene                                | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| T, T, T, Z-TELIACHIOTOELHAHE                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| m/p-Xylene                                   | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| p-Xylene                                     | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| Styrene                                      | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Bromoform                                    | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| sopropylbenzene                              | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| r, r,∠,∠-retrachioroethane<br>Bromobenzene   | <4<br><2         | <4               | <4               | <4               | <4<br><2         | <4<br><2         | <4               |  |  | <4<br><2  | ug/l         | TM15/PM10    |
| 1.2.3-Trichloropropane                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Propylbenzene                                | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 2-Chlorotoluene                              | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,3,5-Trimethylbenzene                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 4-Chlorotoluene                              | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| ert-Butylbenzene                             | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| r,2,4-mmetnyibenzene                         | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/i         | TM15/PM10    |
| 4-Isopropyltoluene                           | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,3-Dichlorobenzene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,4-Dichlorobenzene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| n-Butylbenzene                               | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,2-Dichlorobenzene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,2-Dibromo-3-chloropropane                  | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| r,∠,+- menioropenzene<br>Hexachlorobutadiene | <3<br><3         | <3               | < 3<br>< 3       | <3               | <3<br><3         | <3<br><3         | <3               |  |  | <3<br><3  | ug/i         | TM15/PM10    |
| Naphthalene                                  | <2               | <2               | <2               | <2               | <2               | 6                | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,2,3-Trichlorobenzene                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Surrogate Recovery Toluene D8                | 100              | 102              | 104              | 102              | 103              | 103              | 104              |  |  | <0        | %            | TM15/PM10    |
| Surrogate Recovery 4-Bromofluorobenzene      | 108              | 103              | 105              | 102              | 104              | 101              | 105              |  |  | <0        | %            | TM15/PM10    |

| Job number:      | 23/527       | Method: | VOC    |  |
|------------------|--------------|---------|--------|--|
| Sample number:   | 27           | Matrix: | Liquid |  |
| Sample identity: | F-BH102D     |         |        |  |
| Sample depth:    | 28.50        |         |        |  |
| Sample Type:     | Ground Water |         |        |  |
| Units:           | ug/l         |         |        |  |
| Nata: 0 1 11 TIO |              |         |        |  |

Note: Only samples with TICs (if requested) are reported. If TICs were requested but no compounds found they are not reported.

| CAS No.  | Tentative Compound Identification | Retention Time<br>(minutes) | % Match | Concentration |
|----------|-----------------------------------|-----------------------------|---------|---------------|
| 110-43-0 | 2-Heptanone                       | 6.199                       | 91      | 236           |
|          |                                   |                             |         |               |
|          |                                   |                             |         |               |
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| Job number:        | 23/527       | Method: | SVOC   |
|--------------------|--------------|---------|--------|
| Sample number:     | 35           | Matrix: | Liquid |
| Sample identity:   | F-BH102D     |         |        |
| Sample depth:      | 28.50        |         |        |
| Sample Type:       | Ground Water |         |        |
| Units:             | ug/l         |         |        |
| Natas o la sul Tio |              |         |        |

Note: Only samples with TICs (if requested) are reported. If TICs were requested but no compounds found they are not reported.

| CAS No.  | Tentative Compound Identification | Retention Time<br>(minutes) | % Match | Concentration |
|----------|-----------------------------------|-----------------------------|---------|---------------|
| 111-27-3 | I<br>1-Hexanol                    | 3.512                       | 83      | 107           |
| 110-43-0 | 2-Heptanone                       | 3.692                       | 91      | 178           |
|          |                                   |                             |         |               |
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NDP Reason Report

Matrix : Liquid

| Client Name: | Arcadis        |
|--------------|----------------|
| Reference:   | 10035117       |
| Location:    | Redcar LWoW    |
| Contact:     | Jonathan Miles |

| EMT<br>Job<br>No. | Batch | Sample ID | Depth | EMT<br>Sample<br>No. | Method No. | NDP Reason   |
|-------------------|-------|-----------|-------|----------------------|------------|--|
| 23/527            | 1     | F-BH102D  | 28.50 | 27-39                | TM170/PM14 | Sample unsuitable for analysis by ICP-MS. Sample rescheduled for analysis by ICP-OES |
|                   |       |           |       |                      |            |  |
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| Client Name: | Arcadis        |
|--------------|----------------|
| Reference:   | 10035117       |
| Location:    | Redcar LWoW    |
| Contact:     | Jonathan Miles |

| EMT<br>Job<br>No. | Batch   | Sample ID | Depth | EMT<br>Sample<br>No. | Analysis | Reason |  |  |  |  |
|-------------------|---|-----------|-------|----------------------|----------|--------|--|--|--|--|
|                   | No deviating sample report results for job 23/527 |           |       |                      |          |        |  |  |  |  |
|                   |   |           |       |                      |          |        |  |  |  |  |
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Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

## NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/527

#### SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at  $35^{\circ}C \pm 5^{\circ}C$  unless otherwise stated. Moisture content for CEN Leachate tests are dried at  $105^{\circ}C \pm 5^{\circ}C$ . Ash samples are dried at  $37^{\circ}C \pm 5^{\circ}C$ .

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

#### WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

#### STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

#### **DEVIATING SAMPLES**

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

#### SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

#### DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

## BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

#### NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

### **REPORTS FROM THE SOUTH AFRICA LABORATORY**

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

#### **Measurement Uncertainty**

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

#### **Customer Provided Information**

Sample ID and depth is information provided by the customer.

| #       | ISO17025 (UKAS Ref No. 4225) accredited - UK.  |
|---------|--|
| SA      | ISO17025 (SANAS Ref No.T0729) accredited - South Africa  |
| В       | Indicates analyte found in associated method blank.  |
| DR      | Dilution required.   |
| М       | MCERTS accredited.   |
| NA      | Not applicable   |
| NAD     | No Asbestos Detected.  |
| ND      | None Detected (usually refers to VOC and/SVOC TICs).   |
| NDP     | No Determination Possible  |
| SS      | Calibrated against a single substance  |
| SV      | Surrogate recovery outside performance criteria. This may be due to a matrix effect.   |
| W       | Results expressed on as received basis.  |
| +       | AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.                           |
| >>      | Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher. |
| *       | Analysis subcontracted to an Element Materials Technology approved laboratory.   |
| AD      | Samples are dried at 35°C ±5°C   |
| со      | Suspected carry over   |
| LOD/LOR | Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS  |
| ME      | Matrix Effect  |
| NFD     | No Fibres Detected   |
| BS      | AQC Sample   |
| LB      | Blank Sample   |
| N       | Client Sample  |
| ТВ      | Trip Blank Sample  |
| OC      | Outside Calibration Range  |
| AA      | x5 Dilution  |
| AB      | x10 Dilution   |
| AC      | x15 Dilution   |
| AD      | x30 Dilution   |
| AE      | x50 Dilution   |

### HWOL ACRONYMS AND OPERATORS USED

| HS    | Headspace Analysis.  |
|-------|--|
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent. |
| CU    | Clean-up - e.g. by florisil, silica gel.                             |
| 1D    | GC - Single coil gas chromatography.                                 |
| Total | Aliphatics & Aromatics.  |
| AL    | Aliphatics only.   |
| AR    | Aromatics only.  |
| 2D    | GC-GC - Double coil gas chromatography.                              |
| #1    | EH_Total but with humics mathematically subtracted                   |
| #2    | EU_Total but with fatty acids mathematically subtracted              |
| _     | Operator - underscore to separate acronyms (exception for +).        |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total   |
| MS    | Mass Spectrometry.   |

EMT Job No: 23/527

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| тмо             | Not available  | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   |                                  |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present.   | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details  | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details   |                                  |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic<br>Compounds (VOCs) by Headspace GC-MS.   | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.  |                                  |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   |                                  |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   | Yes                              |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.  | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| ТМ30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |

EMT Job No: 23/527

| Test Method No. | Description   | Prep Method<br>No. (if<br>appropriate) | Description  | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|---|--|--|----------------------------------|------------------------------|--|------------------------------------|
| TM36            | Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-<br>elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.   | PM12                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis. |                                  |                              |  |                                    |
| TM37            | 2540D:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 160.4 (1971) and<br>SMEWW 2540E:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 160.4 (1971) and<br>SMEWW 2540E:1999 22nd Edition. Gravimetric determination of Total Suspended<br>Solids (TSS) and Volatile Suspended Solids (VSS). Sample is filtered through a 1.5um<br>pore size glass fibre filter and the resulting residue is dried and weighed at 105°C for<br>TSS and E50°C for USS. | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I   | PM0                                    | No preparation is required.  | Yes                              |                              |  |                                    |
| TM60            | TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.  | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM61            | Determination of Mercury by Cold Vapour Atomic Fluorescence - WATERS: Modified USEPA Method 245.7, Rev 2, Feb 2005. SOILS: Modified USEPA Method 7471B, Rev.2, Feb 2007   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| ТМ73            | Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-<br>3:1990. Determination of pH by Metrohm automated probe analyser.   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM75            | Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM89            | Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection<br>Analyser. Where WAD cyanides are required a Ligand displacement step is carried out<br>before analysis.  | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM94            | Derivatisation and extraction of Organotins. Analysis by GC-MS  | PM48                                   | Samples are pretreated and derivatised. The derviatised organotins are then extracted using hexane.      |                                  |                              |  |                                    |

EMT Job No: 23/527

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM107           | Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser   | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM170           | Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass<br>Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method<br>6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |



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W: www.element.com



Seven samples were received for analysis on 13th January, 2023 of which seven were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.

All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

5.60-20

Simon Gomery BSc Project Manager

Please include all sections of this report if it is reproduced

Arcadis

| Client Name:                          | Arcadis              |                      |                      |                      |                      |                      | Report :                             | Liquid  |           |                  |           |              |              |  |
|---------------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------------------------|---|-----------|------------------|-----------|--------------|--------------|--|
| Reference:                            | 10035117             |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
| Location:                             | Redcar L\            | NoW                  |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
| Contact:                              | Jonathan Miles       |                      |                      |                      |                      |                      |                                      | Liquids/products: V=40ml vial, G=glass bottle, P=plastic bottle |           |                  |           |              |              |  |
| EMT Job No:                           | 23/527               |                      |                      |                      |                      |                      | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N=  | NaOH, HN= | HN0 <sub>3</sub> |           |              |              |  |
| EMT Sample No.                        | 1-13                 | 14-26                | 27-39                | 40-52                | 53-65                | 66-78                | 79-91                                |   |           |                  |           |              |              |  |
| Sample ID                             | F-BH101D             | F-BH101S             | F-BH102D             | F-BH102S             | MS/BH14              | MS/BH15D             | MS/BH15S                             |   |           |                  |           |              |              |  |
| Depth                                 | 25.50                | 7.00                 | 28.50                | 10.00                | 6.50                 | 8.00                 | 4.00                                 |   |           |                  | Please se | o attached n | otos for all |  |
| COC No / misc                         |                      |                      |                      |                      |                      |                      |                                      |   |           |                  | abbrevia  | ations and a | cronyms      |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
| Containers                            | V H HN N Z P G                       |   |           |                  |           |              |              |  |
| Sample Date                           | 09/01/2023 14:30     | 09/01/2023 11:30     | 09/01/2023 16:25     | 10/01/2023 12:30     | 10/01/2023 14:30     | 10/01/2023 15:45     | 10/01/2023 17:00                     |   |           |                  |           |              |              |  |
| Sample Type                           | Ground Water                         |   |           |                  |           |              |              |  |
| Batch Number                          | 1                    | 1                    | 1                    | 1                    | 1                    | 1                    | 1                                    |   |           |                  |           | Units        | Method       |  |
| Date of Receipt                       | 13/01/2023           | 13/01/2023           | 13/01/2023           | 13/01/2023           | 13/01/2023           | 13/01/2023           | 13/01/2023                           |   |           |                  |           |              | No.          |  |
| Dissolved Aluminium                   | 7.2                  | 301                  | NDP                  | 268                  | 386                  | 54.6                 | 87.8                                 |   |           |                  | <1.5      | ug/l         | TM170/PM14   |  |
| Dissolved Arsenic                     | 7.4                  | 2.5                  | NDP                  | 13.7                 | 19.5                 | 14.9                 | 5.9                                  |   |           |                  | <0.9      | ug/l         | TM170/PM14   |  |
| Dissolved Boron                       | 312                  | 83                   | NDP                  | 185                  | 32                   | 102                  | 78                                   |   |           |                  | <12       | ug/l         | TM170/PM14   |  |
| Dissolved Cadmium                     | 0.05                 | 0.06                 | NDP                  | 0.03                 | 0.05                 | <0.03                | <0.03                                |   |           |                  | <0.03     | ug/l         | TM170/PM14   |  |
| Total Dissolved Chromium              | 6.9                  | 8.3                  | NDP                  | 3.2                  | 6.3                  | 1.2                  | 7.8                                  |   |           |                  | <0.2      | ug/l         | TM170/PM14   |  |
| Dissolved Copper                      | <1                   | 4                    | NDP                  | <1                   | 1                    | <1                   | 4                                    |   |           |                  | <1        | ug/l         | TM170/PM14   |  |
| Total Dissolved Iron                  | 8.5                  | 51.1                 | NDP                  | 57.2                 | 17.0                 | 39.4                 | 32.7                                 |   |           |                  | <4.7      | ua/l         | TM170/PM14   |  |
| Dissolved Lead                        | <0.4                 | <0.4                 | NDP                  | <0.4                 | <0.4                 | <0.4                 | <0.4                                 |   |           |                  | <0.4      | ua/l         | TM170/PM14   |  |
| Dissolved Manganese                   | <1.5                 | 1.7                  | NDP                  | 7.1                  | 1.8                  | 4.3                  | 4.8                                  |   |           |                  | <1.5      | ua/l         | TM170/PM14   |  |
| Dissolved Molvbdenum                  | 220                  | 229                  | NDP                  | 113                  | 180                  | 39.8                 | 39.8                                 |   |           |                  | <0.2      | ua/l         | TM170/PM14   |  |
| Dissolved Nickel                      | 0.9                  | 3.4                  | NDP                  | 1.2                  | 5.8                  | 1.0                  | 1.2                                  |   |           |                  | <0.2      | ua/l         | TM170/PM14   |  |
| Dissolved Zinc                        | <1.5                 | 1.8                  | NDP                  | 3.4                  | 2.0                  | 2.2                  | 5.8                                  |   |           |                  | <1.5      | ua/l         | TM170/PM14   |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           | -3.          |              |  |
| Dissolved Aluminium <sup>#</sup>      | -                    | -                    | 148                  | -                    | -                    | -                    | -                                    |   |           |                  | <1.5      | ua/l         | TM30/PM14    |  |
|                                       | -                    | -                    | 4.9                  | -                    | -                    | -                    | -                                    |   |           |                  | <0.9      | g.           | TM30/PM14    |  |
| Dissolved Roron                       | -                    | -                    | 176                  | -                    | -                    | -                    | -                                    |   |           |                  | <12       | ug/l         | TM30/PM14    |  |
| Dissolved Cadmium <sup>#</sup>        | -                    | -                    | <0.03                | -                    | -                    | -                    | -                                    |   |           |                  | <0.03     | <u>-</u>     | TM30/PM14    |  |
| Dissolved Calcium                     | -                    | -                    | -                    | 113                  | 170                  | -                    | -                                    |   |           |                  | <0.2      | ma/l         | TM30/PM14    |  |
| Dissolved Calcium <sup>#</sup>        | 303                  | 514.0                | 424.0                | -                    | -                    | 377                  | 497                                  |   |           |                  | <0.2      | mg/l         | TM30/PM14    |  |
| Total Dissolved Chromium <sup>#</sup> | -                    |                      | AB<br>6.5            | -                    | -                    | -                    |                                      |   |           |                  | <0.2      | ug/l         | TM30/PM14    |  |
| Dissolved Coppor <sup>#</sup>         |                      | _                    | 6.5                  | _                    | _                    |                      | _                                    |   |           |                  | -0.2      | ug/l         | TM30/PM14    |  |
| Total Dissolved Iron #                |                      |                      | 22.6                 |                      |                      |                      |                                      |   |           |                  | <17       | ug/l         | TM30/PM14    |  |
| Dissolved Load #                      |                      |                      | <0.4                 |                      |                      |                      | _                                    |   |           |                  | <0.4      | ug/l         | TM30/PM14    |  |
| Dissolved Leau                        | - 37                 | -01                  | <0.4                 | - 0.4                | -01                  | -01                  | - 0.2                                |   |           |                  | <0.4      | mg/l         | TM30/PM14    |  |
| Dissolved Magnesium                   | 5.7                  | ~0.1                 | <1.5                 | 0.4                  | ~0.1                 | <b>~0.1</b>          | 0.2                                  |   |           |                  | <1.5      | ing/i        | TM20/DM14    |  |
| Dissolved Malyanese                   | -                    | _                    | 197                  | _                    | -                    | -                    | -                                    |   |           |                  | <0.2      | ug/l         | TM20/DM14    |  |
| Dissolved Molybdenum                  | -                    | -                    | 107                  | -                    | -                    | -                    | -                                    |   |           |                  | <0.2      | ug/i         | TM20/PM14    |  |
| Dissolved Nickel                      | -                    | -                    | 4.2                  | -                    | -                    | -                    | -                                    |   |           |                  | <0.2      | ug/i         | TM20/PM14    |  |
| Dissolved Polassium                   | 70.8                 | 70.3                 | 75.0                 | 32.7                 | 79.1                 | 91.7                 | 90.7                                 |   |           |                  | <0.1      | mg/i         | TN30/PW14    |  |
| Dissolved Silicon                     | 7510                 | 4080                 | 1910                 | 7640                 | 10300                | 6970                 | 6000                                 |   |           |                  | <100      | ug/i         | TN30/PW14    |  |
| Dissolved Sodium                      | -                    | -                    | -                    | 92.7                 | 54.7                 | 04.2                 | 53.7                                 |   |           |                  | <0.1      | mg/i         | TM30/PM14    |  |
| Dissolved Sodium"                     | 235AA                | 382 <sub>AB</sub>    | 802 <sub>AB</sub>    | -                    | -                    | -                    | -                                    |   |           |                  | <0.1      | mg/i         | TM30/PM14    |  |
| Dissolved Zinc"                       | -                    | -                    | 2.3                  | -                    | -                    | -                    | -                                    |   |           |                  | <1.5      | ug/l         | TM30/PM14    |  |
| Mercury Dissolved by CVAF             | <0.01                | 0.01                 | <0.10 <sub>AB</sub>  | 0.02                 | 0.02                 | <0.01                | <0.01                                |   |           |                  | <0.01     | ug/l         | TM61/PM0     |  |
| Total Sulphur as S                    | 271.00 <sub>AB</sub> | 308.00 <sub>AB</sub> | 142.00 <sub>AB</sub> | 122.00 <sub>AB</sub> | 166.00 <sub>AB</sub> | 339.00 <sub>AB</sub> | 389.00 <sub>AB</sub>                 |   |           |                  | <0.01     | mg/l         | TM30/PM14    |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
|                                       |                      |                      |                      |                      |                      |                      |                                      |   |           |                  |           |              |              |  |
| Client Name:                            | Arcadis          |                  |                  |                  |                  |                  | Report :                             | Liquid     |              |                   |               |              |              |
|---|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------|------------|--------------|-------------------|---------------|--------------|--------------|
| Reference:                              | 10035117         | •                |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Location:                               | Redcar L\        | NoW              |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Contact:                                | Jonathan         | Miles            |                  |                  |                  |                  | Liquids/pr                           | oducts: V= | 40ml vial, G | Geglass bott      | le, P=plastic | bottle       |              |
| EMI JOD NO:                             | 23/527           | 1                |                  |                  |                  |                  | H=H <sub>2</sub> SO <sub>4</sub> , . | Z=ZnAc, N= | NaOH, HN=    | =HNU <sub>3</sub> | -             |              |              |
| EMT Sample No.                          | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91                                |            |              |                   |               |              |              |
| Sample ID                               | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S                             |            |              |                   |               |              |              |
| Depth                                   | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00                                 |            |              |                   | Please se     | e attached n | otes for all |
| COC No / misc                           |                  |                  |                  |                  |                  |                  |                                      |            |              |                   | abbrevi       | ations and a | cronyms      |
| Containora                              |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Containers                              | VIIIIIVIZIO      | VIIIIIVIZIO      | VIIIIIVIZIO      | VIIIIIVIZIO      | VIIIIIIIII       | VIIIIIIIII       | VIIIIIIIII                           |            |              |                   |               |              |              |
| Sample Date                             | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00                     |            |              |                   |               |              |              |
| Sample Type                             | Ground Water                         |            |              |                   |               |              |              |
| Batch Number                            | 1                | 1                | 1                | 1                | 1                | 1                | 1                                    |            |              |                   | LOD/LOR       | Units        | Method       |
| Date of Receipt                         | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023                           |            |              |                   |               |              | NO.          |
| PAH MS                                  |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| Naphthalene                             | <0.1             | 0.1              | <0.1             | <0.1             | 0.4              | 0.6              | <0.1                                 |            |              |                   | <0.1          | ug/l         | TM4/PM30     |
| Acenaphthylene                          | 0.639            | 0.037            | <0.005           | 0.034            | <0.005           | <0.005           | 0.081                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Acenaphthene                            | 0.394            | 0.035            | 0.026            | 0.051            | 0.594            | 0.343            | 0.285                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Fluorene                                | 0.720            | 0.048            | 0.026            | 0.038            | 0.187            | 0.007            | 0.112                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Phenanthrene                            | 4.48             | 0.217            | 0.123            | 0.243            | 0.644            | 0.091            | 0.008                                |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Anthracene                              | 1.02             | 0.036            | 0.022            | 0.076            | 0.091            | 0.020            | 0.018                                |            |              |                   | < 0.005       | ug/l         | TM4/PM30     |
|   | 2.47             | 0.111            | 0.057            | 0.641            | 0.413            | 0.034            | 0.034                                |            |              |                   | <0.005        | ug/i         | TM4/PM30     |
|   | 1.00             | 0.007            | 0.055            | 0.005            | 0.291            | 0.034            | 0.020                                |            |              |                   | <0.005        | ug/l         | TM4/PW30     |
| Chrysene                                | 1.22             | 0.020            | 0.019            | 0.299            | 0.030            | 0.008            | 0.008                                |            |              |                   | <0.005        | ug/l         | TM4/PW30     |
| Benzo(bk)fluoranthene                   | 0.880            | 0.032            | 0.021            | 0.545            | 0.020            | <0.007           | 0.009                                |            |              |                   | <0.003        | ug/l         | TM4/PM30     |
| Benzo(a)pyrene                          | 0.607            | 0.014            | 0.012            | 0.233            | <0.005           | < 0.005          | < 0.005                              |            |              |                   | < 0.005       | ug/l         | TM4/PM30     |
| Indeno(123cd)pyrene                     | 0.216            | 0.009            | 0.013            | 0.213            | < 0.005          | < 0.005          | < 0.005                              |            |              |                   | < 0.005       | ug/l         | TM4/PM30     |
| Dibenzo(ah)anthracene                   | 0.058            | <0.005           | <0.005           | 0.041            | <0.005           | <0.005           | <0.005                               |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| Benzo(ghi)perylene                      | 0.247            | 0.008            | 0.010            | 0.166            | <0.005           | <0.005           | <0.005                               |            |              |                   | <0.005        | ug/l         | TM4/PM30     |
| PAH 16 Total                            | 17.111           | 0.796            | 0.414            | 3.642            | 2.697            | 1.144            | 0.594                                |            |              |                   | <0.173        | ug/l         | TM4/PM30     |
| Benzo(b)fluoranthene                    | 0.634            | 0.025            | 0.023            | 0.474            | 0.015            | <0.008           | <0.008                               |            |              |                   | <0.008        | ug/l         | TM4/PM30     |
| Benzo(k)fluoranthene                    | 0.246            | 0.010            | 0.009            | 0.185            | <0.008           | <0.008           | <0.008                               |            |              |                   | <0.008        | ug/l         | TM4/PM30     |
| PAH Surrogate % Recovery                | 75               | 85               | 84               | 87               | 88               | 82               | 85                                   |            |              |                   | <0            | %            | TM4/PM30     |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| VOC TICs                                | ND               | ND               | See Attached     | ND               | ND               | ND               | ND                                   |            |              |                   |               | None         | TM15/PM10    |
| Methyl Tertiary Butyl Ether             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1                                 |            |              |                   | <0.1          | ug/l         | TM15/PM10    |
| Benzene                                 | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5                                 |            |              |                   | <0.5          | ug/l         | TM15/PM10    |
| Toluene                                 | <5               | <5               | <5               | <5               | <5               | <5               | <5                                   |            |              |                   | <5            | ug/l         | TM15/PM10    |
|   | <1               | <1               | <1               | <1               | <1               | <1               | <1                                   |            |              |                   | <1            | ug/i         | TM15/PM10    |
|   | ~2               | ~2               | ~2               | ~2               | <2               | ~2               | ~2                                   |            |              |                   | ~2            | ug/l         | TM15/PM10    |
| Surrogate Recovery Toluene D8           | 100              | 102              | 104              | 102              | 103              | 103              | 104                                  |            |              |                   | <0            | 49/1<br>%    | TM15/PM10    |
| Surrogate Recovery 4-Bromofluorobenzene | 108              | 102              | 105              | 102              | 104              | 101              | 105                                  |            |              |                   | <0            | %            | TM15/PM10    |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
| SVOC TICs                               | ND               | ND               | See Attached     | ND               | ND               | ND               | ND                                   |            |              |                   |               | None         | TM16/PM30    |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   |                  |                  |                  |                  |                  |                  |                                      |            |              |                   |               |              |              |
|   | 1                | 1                | 1                | 1                |                  | 1                | 1                                    | 1          |              | 1                 |               |              | 1            |

| Client Name:                          | Arcadis          |                  |                  |                  |                  |                  | Report :                             | Liquid     |              |             |              |              |                        |
|---------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------------------------------|------------|--------------|-------------|--------------|--------------|------------------------|
| Reference:                            | 10035117         | 7                |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Location:                             | Redcar L         | WoW              |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Contact:                              | Jonathan         | Miles            |                  |                  |                  |                  | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bott | e, P=plastic | bottle       |                        |
| EMT Job No:                           | 23/527           |                  |                  |                  |                  |                  | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN03        |              |              |                        |
| EMT Sample No.                        | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91                                |            |              |             |              |              |                        |
| Sample ID                             | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S                             |            |              |             |              |              |                        |
| Depth                                 | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00                                 |            |              |             | Diagon on    | o ottoobod n | ataa far all           |
| COC No / miss                         |                  |                  |                  |                  |                  |                  |                                      |            |              |             | abbrevi      | ations and a | cronyms                |
| COC NO / IIISC                        |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Containers                            | V H HN N Z P G                       |            |              |             |              |              |                        |
| Sample Date                           | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00                     |            |              |             |              |              |                        |
| Sample Type                           | Ground Water                         |            |              |             |              |              |                        |
| Batch Number                          | 1                | 1                | 1                | 1                | 1                | 1                | 1                                    |            |              |             |              |              | Mathad                 |
| Date of Receipt                       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023                           |            |              |             | LOD/LOR      | Units        | No.                    |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| Alinhatics                            |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| >05-06                                | <10              | <10              | 45               | 22               | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/DM12              |
| >03-08                                | <10              | <10              | 40               | 10               | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         |                        |
|                                       | < IU<br>10       | < IU<br>07       | 50               | 12               | <10<br><10       | < IU             | <10<br><10                           |            |              |             | <10<br><10   | ug/I         | TM26/DM42              |
| >08-010                               | 12               | 2/               | 564              | 42               | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         | 11/136/P1/12           |
| >C10-C12                              | <5               | <5               | <5               | <5               | <5               | <5               | <5                                   |            |              |             | <5           | ug/l         | TM5/PM16/PM30          |
| >C12-C16                              | 160              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >016-021                              | 1860             | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/i         | TM5/PM16/PM30          |
| >C21-C35                              | 840              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >C35-C44                              | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| Total aliphatics C5-44                | 2872             | 27               | 697              | 76               | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Aromatics                             |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |
| >C5-EC7                               | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/PM12              |
| >EC7-EC8                              | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/PM12              |
| >EC8-EC10                             | <10              | <10              | 57               | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM36/PM12              |
| >EC10-EC12                            | <5               | <5               | <5               | <5               | <5               | <5               | <5                                   |            |              |             | <5           | ug/l         | TM5/PM16/PM30          |
| >EC12-EC16                            | 60               | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >EC16-EC21                            | 700              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >EC21-EC35                            | 270              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| >EC35-EC44                            | <10              | <10              | <10              | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/PM16/PM30          |
| Total aromatics C5-44                 | 1030             | <10              | 57               | <10              | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/TM36/PM12/PM16/PM3 |
| Total aliphatics and aromatics(C5-44) | 3902             | 27               | 754              | 76               | <10              | <10              | <10                                  |            |              |             | <10          | ug/l         | TM5/TM56/PM12/PM16/PM3 |
| Resorcinol                            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Catechol                              | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Phenol                                | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| m/p-cresol                            | <0.02            | <0.02            | <0.02            | <0.02            | <0.02            | <0.02            | <0.02                                |            |              |             | <0.02        | mg/l         | TM26/PM0               |
| o-cresol                              | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Total cresols                         | <0.03            | <0.03            | <0.03            | <0.03            | <0.03            | <0.03            | <0.03                                |            |              |             | <0.03        | mg/l         | TM26/PM0               |
| Xylenols                              | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06                                |            |              |             | <0.06        | mg/l         | TM26/PM0               |
| 1-naphthol                            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| 2,3,5-trimethyl phenol                | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| 2-isopropylphenol                     | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01            | <0.01                                |            |              |             | <0.01        | mg/l         | TM26/PM0               |
| Total Speciated Phenols HPLC          | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1                                 |            |              |             | <0.1         | mg/l         | TM26/PM0               |
|                                       | 0.5.5            |                  | 0                |                  | 4                |                  | 4.6.1-                               |            |              |             |              | -            | -                      |
| Sulphate as SO4                       | 622              | 776              | 367              | 343              | 430              | 867              | 1010                                 |            |              |             | <0.5         | mg/l         | 1M38/PM0               |
| Chloride                              | 383              | 504              | 1110             | 125              | 54.3             | 74.9             | 59.1                                 |            |              |             | <0.3         | mg/l         | TM38/PM0               |
| Nitrate as NO3                        | -                | <0.2             | <0.2             | <0.2             | -                | <0.2             | -                                    |            |              |             | <0.2         | mg/l         | TM38/PM0               |
| Nitrate as NO3 <sup>#</sup>           | <0.2             | -                | -                | -                | <0.2             | -                | 4.4                                  |            |              |             | <0.2         | mg/l         | TM38/PM0               |
| Nitrite as NO2                        | -                | <0.02            | 0.08             | <0.02            | -                | <0.02            | -                                    |            |              |             | <0.02        | mg/l         | TM38/PM0               |
| Nitrite as NO2 <sup>#</sup>           | <0.02            | -                | -                | -                | <0.02            | -                | 2.68                                 |            |              |             | <0.02        | mg/l         | TM38/PM0               |
| Ortho Phosphate as PO4                | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06            | <0.06                                |            |              |             | <0.06        | mg/l         | TM38/PM0               |
| Inorganic Nitrogen                    | 2.62             | 2.67             | 1.75             | 0.07             | 5.11             | 3.07             | 2.55                                 |            |              |             | <0.05        | mg/l         | TM38/PM0               |
|                                       |                  |                  |                  |                  |                  |                  |                                      |            |              |             |              |              |                        |

| Client Name:               | Arcadis             |                     |                      |                     |                      |                      | Report :                             | Liquid     |              |              |              |               |              |
|----------------------------|---------------------|---------------------|----------------------|---------------------|----------------------|----------------------|--------------------------------------|------------|--------------|--------------|--------------|---------------|--------------|
| Reference:                 | 10035117            | 7                   |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Location:                  | Redcar L\           | WoW                 |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Contact:                   | Jonathan            | Miles               |                      |                     |                      |                      | Liquids/pr                           | oducts: V= | 40ml vial, G | =glass bottl | e, P=plastic | bottle        |              |
| EMT Job No:                | 23/527              |                     |                      |                     |                      |                      | H=H <sub>2</sub> SO <sub>4</sub> , 2 | Z=ZnAc, N= | NaOH, HN=    | HN03         |              |               |              |
| EMT Sample No.             | 1-13                | 14-26               | 27-39                | 40-52               | 53-65                | 66-78                | 79-91                                |            |              |              |              |               |              |
| Sample ID                  | F-BH101D            | F-BH101S            | F-BH102D             | F-BH102S            | MS/BH14              | MS/BH15D             | MS/BH15S                             |            |              |              |              |               |              |
| Depth                      | 25.50               | 7.00                | 28.50                | 10.00               | 6.50                 | 8.00                 | 4.00                                 |            |              |              | Ploase se    | o attached n  | otos for all |
| COC No / misc              |                     |                     |                      |                     |                      |                      |                                      |            |              |              | abbrevi      | ations and ad | cronyms      |
| Containers                 |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Containers                 | VIIII NZT G         |                     | VIIIIWWZE G          | VIIIIWWZE G         | VIIII NZT G          | VIIII NZ I G         | VIIIIWAZI G                          |            |              |              |              |               |              |
| Sample Date                | 09/01/2023 14:30    | 09/01/2023 11:30    | 09/01/2023 16:25     | 10/01/2023 12:30    | 10/01/2023 14:30     | 10/01/2023 15:45     | 10/01/2023 17:00                     |            |              |              |              |               |              |
| Sample Type                | Ground Water        | Ground Water        | Ground Water         | Ground Water        | Ground Water         | Ground Water         | Ground Water                         |            |              |              |              |               |              |
| Batch Number               | 1                   | 1                   | 1                    | 1                   | 1                    | 1                    | 1                                    |            |              |              | LOD/LOR      | Units         | Method       |
| Date of Receipt            | 13/01/2023          | 13/01/2023          | 13/01/2023           | 13/01/2023          | 13/01/2023           | 13/01/2023           | 13/01/2023                           |            |              |              |              |               | No.          |
| Free Cyanide               | 0.156 <sub>AE</sub> | 0.037 <sub>AA</sub> | 0.064 <sub>AC</sub>  | 0.141 <sub>AE</sub> | 0.036 <sub>AA</sub>  | 0.158 <sub>AD</sub>  | <0.010 <sub>AB</sub>                 |            |              |              | <0.001       | mg/l          | TM89/PM0     |
| Total Cyanide              | 0.156 <sub>AE</sub> | 0.051 <sub>AA</sub> | 0.067 <sub>AC</sub>  | 0.141 <sub>AE</sub> | 0.035 <sub>AA</sub>  | 0.186 <sub>AD</sub>  | 0.018 <sub>AB</sub>                  |            |              |              | <0.001       | mg/l          | TM89/PM0     |
| Complex Cyanide            | <0.050AE            | 0.014 <sub>AA</sub> | <0.015 <sub>AC</sub> | <0.050AE            | <0.005 <sub>AA</sub> | <0.030 <sub>AD</sub> | 0.018 <sub>AB</sub>                  |            |              |              | <0.001       | mg/l          | TM89/PM0     |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Ammoniacal Nitrogen as N   | 2.62                | 2.67                | 1.72                 | 0.07                | 5.11                 | 3.07                 | 0.73                                 |            |              |              | <0.03        | mg/l          | TM38/PM0     |
| Total Alkalinity as CaCO3  | 66                  | 228                 | 778                  | 144                 | 214                  | 58                   | 62                                   |            |              |              | <1           | mg/l          | TM75/PM0     |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              | 0             |              |
| Dibutyltin                 | <0.1                | <0.1                | <0.1                 | <0.1                | <0.1                 | <0.1                 | <0.1                                 |            |              |              | <0.1         | ug/l          | TM94/PM48    |
| Tributyltin                | <0.1                | <0.1                | <0.1                 | <0.1                | <0.1                 | <0.1                 | <0.1                                 |            |              |              | <0.1         | ug/l          | TM94/PM48    |
| Triphenyltin               | <0.1                | <0.1                | <0.1                 | <0.1                | <0.1                 | <0.1                 | <0.1                                 |            |              |              | <0.1         | ug/l          | TM94/PM48    |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              | Ū             |              |
| Sulphide                   | <0.01               | <0.01               | 0.01                 | 0.01                | <0.01                | 0.02                 | <0.01                                |            |              |              | <0.01        | mg/l          | TM107/PM0    |
| Thiocyanate                | <0.02               | 0.02                | 0.06                 | 0.04                | 0.21                 | 0.28                 | 0.15                                 |            |              |              | <0.02        | mg/l          | TM107/PM0    |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
| Dissolved Organic Carbon   | 20                  | 62                  | 390                  | 99                  | 9                    | 6                    | 5                                    |            |              |              | <2           | mg/l          | TM60/PM0     |
| Dissolved Inorganic Carbon | <2                  | <2                  | <2                   | 2                   | <2                   | <2                   | <2                                   |            |              |              | <2           | mg/l          | TM60/PM0     |
| pН                         | 9.92                | 11.4                | 12.1                 | 11.2                | 11.3                 | 9.90                 | 10.2                                 |            |              |              | <0.01        | pH units      | TM73/PM0     |
| Total Suspended Solids     | 69                  | 60                  | 16                   | 91                  | 12                   | 68                   | 24                                   |            |              |              | <10          | mg/l          | TM37/PM0     |
| Total Cations              | 27.46               | 44.22               | 57.96                | 10.54               | 12.89                | 23.95                | 29.47                                |            |              |              | <0.00        | mmolc/l       | TM30/PM14    |
| Total Anions               | 25.08               | 34.93               | 54.55                | 13.55               | 14.77                | 21.32                | 24.00                                |            |              |              | <0.00        | mmolc/l       | TM0/PM0      |
| % Cation Excess            | 4.53                | 11.74               | 3.03                 | -12.49              | -6.80                | 5.81                 | 10.23                                |            |              |              |              | %             | TM0/PM0      |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |
|                            |                     |                     |                      |                     |                      |                      |                                      |            |              |              |              |               |              |

| Client Name: |  |
|--------------|--|
| Reference:   |  |
| Location:    |  |
| Contact:     |  |
| EMT Job No:  |  |

Arcadis 10035117 Redcar LWoW Jonathan Miles 23/527

SVOC Report : Liquid

| EMT Sample No.                                 | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91            |  |  |  |           |              |               |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|--|--|-----------|--------------|---------------|
| Sample ID                                      | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S         |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
| Depth  | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00             |  |  |  | Please se | e attached r | notes for all |
| COC No / MISC<br>Containers                    | V H HN N Z P G   | VHHNNZPG         |  |  |  | abbievie  |              | cionyma       |
| Sample Date                                    | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00 |  |  |  |           |              |               |
| Sample Type                                    | Ground Water     |  |  |  |           |              |               |
| Batch Number                                   | 1                | 1                | 1                | 1                | 1                | 1                | 1                |  |  |  | LOD/LOR   | Units        | Method        |
| Date of Receipt                                | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       |  |  |  |           |              | NO.           |
| Phenols  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
| 2-Chlorophenol <sup>#</sup>                    | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 2-Methylphenol <sup>#</sup>                    | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 2-Nitrophenol                                  | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 2,4-Dichlorophenol <sup>#</sup>                | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 2,4-Dimetnyipnenoi                             | <0.5             | <1               | <1               | <1               | <1               | <1               | <0.5             |  |  |  | <0.5      | ug/i         | TM16/PM30     |
| 2,4,6-Trichlorophenol                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Chloro-3-methylphenol#                       | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| 4-Methylphenol                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Nitrophenol                                  | <10              | <10              | <10              | <10              | <10              | <10              | <10              |  |  |  | <10       | ug/l         | TM16/PM30     |
| Pentachlorophenol                              | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| PAHs   |                  |                  |                  | ~1               | ~1               | ~1               |                  |  |  |  | ~1        | ug/i         | 110110/P1030  |
| 2-Chloronaphthalene <sup>#</sup>               | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 2-Methylnaphthalene <sup>#</sup><br>Phthalates | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Bis(2-ethylhexyl) phthalate                    | <5               | <5               | <5               | <5               | <5               | <5               | <5               |  |  |  | <5        | ug/l         | TM16/PM30     |
| Butylbenzyl phthalate                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Di-n-butyl phthalate <sup>#</sup>              | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             | <1.5             |  |  |  | <1.5      | ug/l         | TM16/PM30     |
| Di-n-Octyl phthalate                           | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Dietnyl prinalate                              | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/i<br>ug/i | TM16/PM30     |
| Other SVOCs                                    | -                |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
| 1,2-Dichlorobenzene #                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 1,2,4-Trichlorobenzene <sup>#</sup>            | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 1,3-Dichlorobenzene <sup>#</sup>               | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 1,4-Dichlorobenzene "                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 2 4-Dinitrotoluene <sup>#</sup>                | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/i<br>ug/i | TM16/PM30     |
| 2,6-Dinitrotoluene                             | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 3-Nitroaniline                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Bromophenylphenylether #                     | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Chloroaniline                                | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| 4-Chlorophenylphenylether"<br>4-Nitroaniline   | <0.5             | <0.5             | <0.5             | <1               | <1               | <1               | <0.5             |  |  |  | <0.5      | ug/i         | TM16/PM30     |
| Azobenzene <sup>#</sup>                        | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Bis(2-chloroethoxy)methane#                    | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Bis(2-chloroethyl)ether#                       | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Carbazole <sup>#</sup>                         | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Dibenzofuran <sup>#</sup>                      | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| HexachloropenZene *                            | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/i<br>ug/i | TM16/PM30     |
| Hexachlorocyclopentadiene                      | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Hexachloroethane #                             | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Isophorone #                                   | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| N-nitrosodi-n-propylamine <sup>#</sup>         | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  |  | <0.5      | ug/l         | TM16/PM30     |
| Nitrobenzene *                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  |  | <1        | ug/l         | TM16/PM30     |
| Surrogate Recovery p-Terphenyl-d14             | 125              | 117              | 102              | 122              | 102              | 107              | 105              |  |  |  | <0        | %            | TM16/PM30     |
|  | 120              |                  | 120              |                  | 120              | 120              | 120              |  |  |  | Ū         | ,,,          |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |  |           |              |               |
|  |                  |                  | L                | L                |                  |                  |                  |  |  |  |           |              | 1             |

| Client Name: |  |
|--------------|--|
| Reference:   |  |
| Location:    |  |
| Contact:     |  |
| EMT Job No:  |  |

Arcadis 10035117 Redcar LWoW Jonathan Miles 23/527

VOC Report : Liquid

| EMT Sample No.                               | 1-13             | 14-26            | 27-39            | 40-52            | 53-65            | 66-78            | 79-91            |  |  |           |              |              |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|--|-----------|--------------|--------------|
|  |                  |                  |                  |                  |                  |                  |                  |  |  |           |              |              |
| Sample ID                                    | F-BH101D         | F-BH101S         | F-BH102D         | F-BH102S         | MS/BH14          | MS/BH15D         | MS/BH15S         |  |  |           |              |              |
|  |                  |                  |                  |                  |                  |                  |                  |  |  |           |              |              |
| Depth  | 25.50            | 7.00             | 28.50            | 10.00            | 6.50             | 8.00             | 4.00             |  |  | Please se | e attached r | otes for all |
| COC No / misc                                |                  |                  |                  |                  |                  |                  |                  |  |  | abbievi   | auons anu a  | cionyms      |
| Sample Date                                  | 09/01/2023 14:30 | 09/01/2023 11:30 | 09/01/2023 16:25 | 10/01/2023 12:30 | 10/01/2023 14:30 | 10/01/2023 15:45 | 10/01/2023 17:00 |  |  |           |              |              |
| Sample Type                                  | Ground Water     |  |  |           |              |              |
| Batch Number                                 | 1                | 1                | 1                | 1                | 1                | 1                | 1                |  |  |           | Linite       | Method       |
| Date of Receipt                              | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       | 13/01/2023       |  |  | LOD/LOR   | Units        | No.          |
| VOC MS                                       |                  |                  |                  |                  |                  |                  |                  |  |  |           |              |              |
| Dichlorodifluoromethane                      | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Nethyl Tertiary Butyl Ether                  | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             | <0.1             |  |  | <0.1      | ug/l         | TM15/PM10    |
|  | <0 1             | <0.1             | <0.1             | <0.1             | <0 1             | <0 1             | <0.1             |  |  | <0 1      | ug/l         | TM15/PM10    |
| Bromomethane                                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| Chloroethane                                 | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Trichlorofluoromethane                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,1-Dichloroethene (1,1 DCE)                 | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Dichloromethane (DCM)                        | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| rans-1-2-Dichloroethene                      | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| cis-1-2-Dichloroethene                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/i<br>ug/i | TM15/PM10    |
| 2,2-Dichloropropane                          | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| Bromochloromethane                           | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Chloroform                                   | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,1,1-Trichloroethane                        | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,1-Dichloropropene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Carbon tetrachloride                         | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Renzene                                      | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             | <0.5             |  |  | <0.5      | ug/l         | TM15/PM10    |
| Trichloroethene (TCE)                        | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,2-Dichloropropane                          | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Dibromomethane                               | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Bromodichloromethane                         | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| cis-1-3-Dichloropropene                      | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| I oluene                                     | <5               | <5               | <5               | <5               | <5               | <5               | <5               |  |  | <5        | ug/l         | TM15/PM10    |
| 1.1.2-Trichloroethane                        | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Tetrachloroethene (PCE)                      | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,3-Dichloropropane                          | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Dibromochloromethane                         | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,2-Dibromoethane                            | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Chlorobenzene                                | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| T, T, T, Z-TELIACHIOTOELHAHE                 | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| m/p-Xylene                                   | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| p-Xylene                                     | <1               | <1               | <1               | <1               | <1               | <1               | <1               |  |  | <1        | ug/l         | TM15/PM10    |
| Styrene                                      | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| Bromoform                                    | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| sopropylbenzene                              | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| r, r,∠,∠-retrachioroethane<br>Bromobenzene   | <4<br><2         | <4               | <4               | <4               | <4<br><2         | <4<br><2         | <4               |  |  | <4<br><2  | ug/l         | TM15/PM10    |
| 1.2.3-Trichloropropane                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Propylbenzene                                | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 2-Chlorotoluene                              | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,3,5-Trimethylbenzene                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 4-Chlorotoluene                              | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| ert-Butylbenzene                             | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| r,2,4-mmetnyibenzene                         | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/i         | TM15/PM10    |
| 4-Isopropyltoluene                           | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,3-Dichlorobenzene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,4-Dichlorobenzene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| n-Butylbenzene                               | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,2-Dichlorobenzene                          | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| 1,2-Dibromo-3-chloropropane                  | <2               | <2               | <2               | <2               | <2               | <2               | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| r,∠,+- menioropenzene<br>Hexachlorobutadiene | <3<br><3         | <3               | < 3<br>< 3       | <3               | <3<br><3         | <3<br><3         | <3               |  |  | <3<br><3  | ug/i         | TM15/PM10    |
| Naphthalene                                  | <2               | <2               | <2               | <2               | <2               | 6                | <2               |  |  | <2        | ug/l         | TM15/PM10    |
| 1,2,3-Trichlorobenzene                       | <3               | <3               | <3               | <3               | <3               | <3               | <3               |  |  | <3        | ug/l         | TM15/PM10    |
| Surrogate Recovery Toluene D8                | 100              | 102              | 104              | 102              | 103              | 103              | 104              |  |  | <0        | %            | TM15/PM10    |
| Surrogate Recovery 4-Bromofluorobenzene      | 108              | 103              | 105              | 102              | 104              | 101              | 105              |  |  | <0        | %            | TM15/PM10    |

| Job number:      | 23/527       | Method: | VOC    |  |
|------------------|--------------|---------|--------|--|
| Sample number:   | 27           | Matrix: | Liquid |  |
| Sample identity: | F-BH102D     |         |        |  |
| Sample depth:    | 28.50        |         |        |  |
| Sample Type:     | Ground Water |         |        |  |
| Units:           | ug/l         |         |        |  |
| Note: OI III TIO |              |         |        |  |

Note: Only samples with TICs (if requested) are reported. If TICs were requested but no compounds found they are not reported.

| CAS No.  | Tentative Compound Identification | Retention Time<br>(minutes) | % Match | Concentration |
|----------|-----------------------------------|-----------------------------|---------|---------------|
| 110-43-0 | 2-Heptanone                       | 6.199                       | 91      | 236           |
|          |                                   |                             |         |               |
|          |                                   |                             |         |               |
|          |                                   |                             |         |               |
|          |                                   |                             |         |               |
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| Job number:        | 23/527       | Method: | SVOC   |
|--------------------|--------------|---------|--------|
| Sample number:     | 35           | Matrix: | Liquid |
| Sample identity:   | F-BH102D     |         |        |
| Sample depth:      | 28.50        |         |        |
| Sample Type:       | Ground Water |         |        |
| Units:             | ug/l         |         |        |
| Natas o la sul Tio |              |         |        |

Note: Only samples with TICs (if requested) are reported. If TICs were requested but no compounds found they are not reported.

| CAS No.  | Tentative Compound Identification | Retention Time<br>(minutes) | % Match | Concentration |
|----------|-----------------------------------|-----------------------------|---------|---------------|
| 111-27-3 | I<br>1-Hexanol                    | 3.512                       | 83      | 107           |
| 110-43-0 | 2-Heptanone                       | 3.692                       | 91      | 178           |
|          |                                   |                             |         |               |
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NDP Reason Report

Matrix : Liquid

| Client Name: | Arcadis        |
|--------------|----------------|
| Reference:   | 10035117       |
| Location:    | Redcar LWoW    |
| Contact:     | Jonathan Miles |

| EMT<br>Job<br>No. | Batch | Sample ID | Depth | EMT<br>Sample<br>No. | Method No. | NDP Reason   |
|-------------------|-------|-----------|-------|----------------------|------------|--|
| 23/527            | 1     | F-BH102D  | 28.50 | 27-39                | TM170/PM14 | Sample unsuitable for analysis by ICP-MS. Sample rescheduled for analysis by ICP-OES |
|                   |       |           |       |                      |            |  |
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| Client Name: | Arcadis        |
|--------------|----------------|
| Reference:   | 10035117       |
| Location:    | Redcar LWoW    |
| Contact:     | Jonathan Miles |

| EMT<br>Job<br>No. | Batch   | Sample ID | Depth | EMT<br>Sample<br>No. | Analysis | Reason |  |  |  |
|-------------------|---|-----------|-------|----------------------|----------|--------|--|--|--|
|                   | No deviating sample report results for job 23/527 |           |       |                      |          |        |  |  |  |
|                   |   |           |       |                      |          |        |  |  |  |
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Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

### NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/527

### SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at  $35^{\circ}C \pm 5^{\circ}C$  unless otherwise stated. Moisture content for CEN Leachate tests are dried at  $105^{\circ}C \pm 5^{\circ}C$ . Ash samples are dried at  $37^{\circ}C \pm 5^{\circ}C$ .

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCI (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

#### WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

#### STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

### **DEVIATING SAMPLES**

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

### SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

### DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

### BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

### NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a UKAS requirement for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.

Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation. Laboratory records are kept for a period of no less than 6 years.

### **REPORTS FROM THE SOUTH AFRICA LABORATORY**

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

### **Measurement Uncertainty**

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

### **Customer Provided Information**

Sample ID and depth is information provided by the customer.

| #       | ISO17025 (UKAS Ref No. 4225) accredited - UK.  |  |  |  |  |  |
|---------|--|--|--|--|--|--|
| SA      | ISO17025 (SANAS Ref No.T0729) accredited - South Africa  |  |  |  |  |  |
| В       | Indicates analyte found in associated method blank.  |  |  |  |  |  |
| DR      | Dilution required.   |  |  |  |  |  |
| М       | MCERTS accredited.   |  |  |  |  |  |
| NA      | Not applicable   |  |  |  |  |  |
| NAD     | No Asbestos Detected.  |  |  |  |  |  |
| ND      | None Detected (usually refers to VOC and/SVOC TICs).   |  |  |  |  |  |
| NDP     | No Determination Possible  |  |  |  |  |  |
| SS      | Calibrated against a single substance  |  |  |  |  |  |
| SV      | Surrogate recovery outside performance criteria. This may be due to a matrix effect.   |  |  |  |  |  |
| W       | Results expressed on as received basis.  |  |  |  |  |  |
| +       | AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.                           |  |  |  |  |  |
| >>      | Results above calibration range, the result should be considered the minimum value. The actual result could be significantly higher. |  |  |  |  |  |
| *       | Analysis subcontracted to an Element Materials Technology approved laboratory.   |  |  |  |  |  |
| AD      | Samples are dried at 35°C ±5°C   |  |  |  |  |  |
| со      | Suspected carry over   |  |  |  |  |  |
| LOD/LOR | Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS  |  |  |  |  |  |
| ME      | Matrix Effect  |  |  |  |  |  |
| NFD     | No Fibres Detected   |  |  |  |  |  |
| BS      | AQC Sample   |  |  |  |  |  |
| LB      | Blank Sample   |  |  |  |  |  |
| N       | Client Sample  |  |  |  |  |  |
| ТВ      | Trip Blank Sample  |  |  |  |  |  |
| OC      | Outside Calibration Range  |  |  |  |  |  |
| AA      | x5 Dilution  |  |  |  |  |  |
| AB      | x10 Dilution   |  |  |  |  |  |
| AC      | x15 Dilution   |  |  |  |  |  |
| AD      | x30 Dilution   |  |  |  |  |  |
| AE      | x50 Dilution   |  |  |  |  |  |

### HWOL ACRONYMS AND OPERATORS USED

| HS    | Headspace Analysis.  |  |  |  |  |
|-------|--|--|--|--|--|
| EH    | Extractable Hydrocarbons - i.e. everything extracted by the solvent. |  |  |  |  |
| CU    | Clean-up - e.g. by florisil, silica gel.                             |  |  |  |  |
| 1D    | GC - Single coil gas chromatography.                                 |  |  |  |  |
| Total | Aliphatics & Aromatics.  |  |  |  |  |
| AL    | Aliphatics only.   |  |  |  |  |
| AR    | Aromatics only.  |  |  |  |  |
| 2D    | GC-GC - Double coil gas chromatography.                              |  |  |  |  |
| #1    | EH_Total but with humics mathematically subtracted                   |  |  |  |  |
| #2    | EU_Total but with fatty acids mathematically subtracted              |  |  |  |  |
| _     | Operator - underscore to separate acronyms (exception for +).        |  |  |  |  |
| +     | Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total   |  |  |  |  |
| MS    | Mass Spectrometry.   |  |  |  |  |

EMT Job No: 23/527

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| тмо             | Not available  | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM4             | Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   |                                  |                              |  |                                    |
| TM5             | Modified 8015B v2:1996 method for the determination of solvent Extractable Petroleum<br>Hydrocarbons (EPH) within the range C8-C40 by GCFID. For waters the solvent extracts<br>dissolved phase plus a sheen if present.   | PM16/PM30                              | Fractionation into aliphatic and aromatic fractions using a Rapid Trace SPE/Water<br>samples are extracted with solvent using a magnetic stirrer to create a vortex.  |                                  |                              |  |                                    |
| TM5/TM36        | please refer to TM5 and TM36 for method details  | PM12/PM16/PM30                         | please refer to PM16/PM30 and PM12 for method details   |                                  |                              |  |                                    |
| TM15            | Modified USEPA 8260B v2:1996. Quantitative Determination of Volatile Organic<br>Compounds (VOCs) by Headspace GC-MS.   | PM10                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis.  |                                  |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   |                                  |                              |  |                                    |
| TM16            | Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic<br>compounds (SVOCs) by GC-MS.   | PM30                                   | Water samples are extracted with solvent using a magnetic stirrer to create a vortex.   | Yes                              |                              |  |                                    |
| TM26            | Determination of phenols by Reversed Phased High Performance Liquid<br>Chromatography and Electro-Chemical Detection.  | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| ТМ30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
| TM30            | Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical<br>Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994;<br>Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009:<br>SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2,<br>Dec.1996 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified | Yes                              |                              |  |                                    |

EMT Job No: 23/527

| Test Method No. | Description   | Prep Method<br>No. (if<br>appropriate) | Description  | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|---|--|--|----------------------------------|------------------------------|--|------------------------------------|
| TM36            | Modified US EPA method 8015B v2:1996. Determination of Gasoline Range Organics (GRO) in the carbon chain range of C4-12 by headspace GC-FID. MTBE by GCFID co-<br>elutes with 3-methylpentane if present and therefore can give a false positive. Positive MTBE results will be re-run using GC-MS to double check, when requested.   | PM12                                   | Modified US EPA method 5021A v2:2014. Preparation of solid and liquid samples for GC headspace analysis. |                                  |                              |  |                                    |
| TM37            | 2540D:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 160.4 (1971) and<br>SMEWW 2540E:1999 22nd Edition; VSS: USEPA 1684 (Jan 2001), USEPA 160.4 (1971) and<br>SMEWW 2540E:1999 22nd Edition. Gravimetric determination of Total Suspended<br>Solids (TSS) and Volatile Suspended Solids (VSS). Sample is filtered through a 1.5um<br>pore size glass fibre filter and the resulting residue is dried and weighed at 105°C for<br>TSS and E50°C for USS. | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM38            | Soluble Ion analysis using Discrete Analyser. Modified US EPA methods: Chloride 325.2<br>(1978), Sulphate 375.4 (Rev.2 1993), o-Phosphate 365.2 (Rev.2 1993), TON 353.1<br>(Rev.2 1993), Nitrite 354.1 (1971), Hex Cr 7196A (1992), NH4+ 350.1 (Rev.2 1993) – All<br>anions comparable to BS ISO 15923-1: 2013I   | PM0                                    | No preparation is required.  | Yes                              |                              |  |                                    |
| TM60            | TC/TOC analysis of Waters by High Temperature Combustion followed by NDIR detection. Based on the following modified standard methods: USEPA 9060A (2002), APHA SMEWW 5310B:1999 22nd Edition, ASTM D 7573, and USEPA 415.1.  | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM61            | Determination of Mercury by Cold Vapour Atomic Fluorescence - WATERS: Modified USEPA Method 245.7, Rev 2, Feb 2005. SOILS: Modified USEPA Method 7471B, Rev.2, Feb 2007   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| ТМ73            | Modified US EPA methods 150.1 (1982) and 9045D Rev. 4 - 2004) and BS1377-<br>3:1990. Determination of pH by Metrohm automated probe analyser.   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM75            | Modified US EPA method 310.1 (1978). Determination of Alkalinity by Metrohm automated titration analyser.   | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM89            | Modified USEPA method OIA-1667 (1999). Determination of cyanide by Flow Injection<br>Analyser. Where WAD cyanides are required a Ligand displacement step is carried out<br>before analysis.  | PM0                                    | No preparation is required.  |                                  |                              |  |                                    |
| TM94            | Derivatisation and extraction of Organotins. Analysis by GC-MS  | PM48                                   | Samples are pretreated and derivatised. The derviatised organotins are then extracted using hexane.      |                                  |                              |  |                                    |

EMT Job No: 23/527

| Test Method No. | Description  | Prep Method<br>No. (if<br>appropriate) | Description   | ISO<br>17025<br>(UKAS/S<br>ANAS) | MCERTS<br>(UK soils<br>only) | Analysis done<br>on As Received<br>(AR) or Dried<br>(AD) | Reported on<br>dry weight<br>basis |
|-----------------|--|--|---|----------------------------------|------------------------------|--|------------------------------------|
| TM107           | Determination of Sulphide/Thiocyanate by Skalar Continuous Flow Analyser   | PM0                                    | No preparation is required.   |                                  |                              |  |                                    |
| TM170           | Determination of Trace Metals by ICP-MS (Inductively Coupled Plasma – Mass<br>Spectrometry): Modified USEPA Method 200.8, Rev. 5.4, 1994; Modified EPA Method<br>6020A, Rev.1, Feb 2007; Modified BS EN ISO 17294-2:2016 | PM14                                   | Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered<br>for Dissolved metals, and remain unfiltered for Total metals then acidified |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |
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|                 |  |  |   |                                  |                              |  |                                    |
|                 |  |  |   |                                  |                              |  |                                    |



# Arcadis 2022 Groundwater Monitoring Summary

| 10035117-AUK-XX-XX-RP-ZZ-623-01-Data Gap Areas GQRA |  |               |      |                        |                           |                          |                       |  |
|---|--|---------------|------|------------------------|---------------------------|--------------------------|-----------------------|--|
|   | Appendix F: Groundwater Monitoring Summary |               |      |                        |                           |                          |                       |  |
| Geology<br>Screened                                 | Date                                       | Location Code | Well | Reference<br>Elevation | Depth to Water<br>(m bgl) | Depth to Base (m<br>bgl) | Water Level (<br>AOD) |  |
| MM  | 05/10/2022                                 |               | D    |                        | 6.800                     | 29.98                    | 2.288                 |  |
| TFD   | 05/10/2022                                 |               | S    | 9.088                  | 6.420                     | 11.3                     | 2.668                 |  |
| MM  | 04/11/2022                                 |               | D    |                        | 8.775                     | 29.765                   | 0.313                 |  |
| TFD   | 04/11/2022                                 |               | S    |                        | 7.395                     | 29.765                   | 1.693                 |  |
| TFD   | 08/11/2022                                 | F-BH102       | S    |                        | 6.320                     | 11.34                    | 2.768                 |  |
| MM  | 14/12/2022                                 |               | D    |                        | 7.400                     | 29.992                   | 1.688                 |  |
| TFD   | 14/12/2022                                 |               | S    |                        | 6.182                     | 11.322                   | 2.906                 |  |
| MM  | 09/01/2023                                 |               | D    |                        | 7.380                     | 29.74                    | 1.708                 |  |
| TFD   | 10/01/2023                                 |               | S    |                        | 6.070                     | 11.39                    | 3.018                 |  |

### Notes:

| m AOD | Meters Above Ordance Datum |
|-------|----------------------------|
| TFD   | Tidal Flat Deposits        |
| MM    | Mercia Mudstone Group      |



Summary of Sample Deviations



**Summary of Sample Deviations** 

| 10035117-A  | AUK-XX-XX-RP-ZZ-6  | 23-01-Data ( | Gap Areas GQRA               |  |
|-------------|--------------------|--------------|------------------------------|--|
| Appendix F: | : Summary of Sampl | e Deviations | at Environmental Testing Lat | poratory   |
| Lab         | Lab Reference      | Lab No.      | Sample ID                    | Deviation  |
|             |                    |              |                              | Holding Time Exceeded for tests  |
| DETS        | 22-17093,22-17940  | 2052084      | F-BH124 3.79-3.90 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17093,22-17940  | 2052085      | F-BH124 5.50-6.00 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17093,22-17940  | 2052080      | F-BH124 7.50-7.60 SOIL       | Carbonate (28 days)  |
| DETS        | 22-17093,22-17940  | 2052088      | F-BH124 9.90-10.50 SOIL      | Carbonate (28 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)                                |
| DETS        | 22-17093,22-17940  | 2052089      | F-BH124 11.10-11.20 SOIL     | Organic Matter (Manual) (28 days)  |
| DETS        | 22-17093,22-17940  | 2052090      | F-BH124 12.00-12.10 SOIL     | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17093,22-17940  | 2052091      | F-BH124 14.30-14.90 SOIL     | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17096           | 2052094      | F-BH120 4.10-4.50 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17096           | 2052095      | F-BH120 4.83-5.20 SOIL       | Carbonate (28 days)  |
| DETS        | 22-17096           | 2052097      | F-BH120 7.50-7.60 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17096           | 2052099      | F-BH120 12.40-12.50 SOIL     | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17096           | 2052101      | F-BH120 30 00-31 50 SOIL     | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17176 22-18149  | 2052102      | E-BH125 4 50-4 80 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-17176 22-18149  | 2052475      | E-BH125 9 00-9 10 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)20524744 - BH125 6 50-6 90 SOIL04/08/22PT 11         |
|             | 22-17176,22-18149  | 2052470      | E BH125 11 46 11 90 SOIL     | Total Sulphur ICP (7 days), pH + Conductivity (7 days)2052474F PH125 6.50 SOIL04/06/22FT 11                |
|             | 22-17176,22-18149  | 2052478      | F-BH125 11.40-11.90 SOIL     | Total Sulphur ICP (7 days), pH + Conductivity (7 days)2052474F PH125 6.50-6.90 SOIL04/06/22PT 1L           |
|             | 22-17170,22-18149  | 2052882      | F-BH125 14.90-15.00 SOIL     |  |
| DETS        | 22-1/283           | 2053079      | F-BH119 3.00-3.10 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)2053080F-BH119 4.60-5.10 SOIL09/08/22PT 1L           |
| DETS        | 22-1/283           | 2053081      | F-BH119 8.10-8.20 SOI        | Total Sulphur ICP (7 days), pH + Conductivity (7 days)2053080F-BH119 4.60-5.10 SOIL09/08/22PT 1L           |
| DETS        | 22-18458           | 2059320      | F-BH104 6.75 SOIL            | Carbonate (28 days)  |
|             | 22-18458           | 2059321      | Г-ВП104 12.00-12.70 SOIL     | Carponale (28 Gays)  |
| DETS        | 22-18458           | 2059322      | Г-ВП104 14.30-15.00 SOIL     | Total Sulphur ICP (7 days) nH + Conductivity (7 days)  |
| DETS        | 22-19275           | 2064390      | F-BH116 9.00-9.70 SOIL       | Total Sulphur ICP (7 days), pH + Conductivity (7 days)   |
| DETS        | 22-19275           | 2064395      | F-BH116 12.88-13.50 SOIL     | Carbonate (28 days)  |
| DETS        | 22-22032           | 2078777      | F-TP112 4.00-4.50 SOIL       | Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days) |
| DETS        | 22-16049           | 2046862      | F-BH119 2.90 SOIL            | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)                            |
| DETS        | 22-16049           | 2046863      | F-BH119 4.30 SOIL            | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)                            |
| DETS        | 22-17018           | 2051750      | F-BH104 21.80 SOIL           | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)                            |
| DETS        | 22-17019           | 2051752      | F-BH104 3.00 SOIL            | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)                            |
| DETS        | 22-17019           | 2051753      | F-BH104 4.00 SOIL            | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days), VOC (7 days)              |
| DETS        | 22-17019           | 2051755      | F-BH104 6.00 SOIL            | Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)                            |
| DETS        | 22-17019           | 2051756      | F-BH104 15.75 SOIL           | Sulphur (free) (/ days), Total Sulphur ICP (/ days), pH + Conductivity (/ days)                            |
| DETS        | 22-17882           | 2056242      | F-BH116 5 90 SOIL            | Ammonia (3 days)   |
| DETS        | 22-17885           | 2056245      | F-BH116 14.00 SOIL           | Ammonia (3 days)   |
| DETS        | 22-18312           | 2058700      | F-BH102 1.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18373           | 2058947      | F-BH120 3.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18373           | 2058948      | F-BH120 5.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18376           | 2058956      | F-BH125 3.80 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18376           | 2058957      | F-BH125 4.80 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18376           | 2058958      | F-BH125 5.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18376           | 2058959      | F-BH125 6.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18377           | 2058967      |                              | Ammonia (3 days)   |
| DETS        | 22-18381           | 2058983      | F-BH119 4.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18398           | 2059038      | F-BH104 3.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18398           | 2059039      | F-BH104 4.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18398           | 2059040      | F-BH104 6.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18398           | 2059041      | F-BH104 15.75 SOIL           | Ammonia (3 days)   |
| DETS        | 22-18803           | 2061468      | F-BH114 0.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18803           | 2061469      | F-BH114 1.80 SOIL            | Ammonia (3 days)   |
| DETS        | 22-18803           | 2061471      | F-BH114 3.80 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19109           | 2065445      | F-BH114 20.30 SOIL           | Ammonia (3 days), Sulphur (free) (7 days), Total Sulphur ICP (7 days), pH + Conductivity (7 days)          |
| DETS        | 22-19347           | 2064596      | F-TP114 1.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19347           | 2064597      | F-TP114 3.30 SOIL            | Ammonia (3 days)   |
|             | 22-1934/           | 2064598      | F-1P114 4.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19349           | 2064599      | F-TP113 0.20 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19349           | 2064604      | F-TP113 2.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19349           | 2064605      | F-TP113 3.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19513           | 2065529      | F-TP112 0.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19513           | 2065531      | F-TP112 2.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19513           | 2065532      | F-TP112 3.70 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19762           | 2066853      | F-TP115 0.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19762           | 2066855      | F-TP115 2.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19762           | 2066856      | F-1P117 0.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-19762           | 2066857      | F-TP117 1.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2000858      | F-TP120 0.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070250      | F-TP120 0.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070252      | F-TP120 2.30 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070253      | F-TP120 3.00 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070255      | F-TP121 0.50 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070256      | F-TP121 0.80 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070257      | F-TP121 1.80 SOIL            | Ammonia (3 days)   |
| DETS        | 22-20306           | 2070258      | F- FP121 3.80 SOIL           | Ammonia (3 days)   |
|             | 22-20457           | 2070384      | F-1P110 U.2U SUIL            | Ammonia (3 days)   |
| DETS        | 22-20457           | 2070380      | F-TP116 3.10 SOIL            | Ammonia (3 days)   |
|             |                    |              |                              |  |



| 10035117-AUK-XX-XX-RP-ZZ-623-01-Data Gap Areas GQRA                          |               |         |                   |                                 |  |
|--|---------------|---------|-------------------|---------------------------------|--|
| Appendix F: Summary of Sample Deviations at Environmental Testing Laboratory |               |         |                   |                                 |  |
| Lab  | Lab Poforonco | Lab No. | Sample ID         | Deviation                       |  |
| Lab  | Lab Reference |         |                   | Holding Time Exceeded for tests |  |
| DETS   | 22-20457      | 2070388 | F-TP116 4.10 SOIL | Ammonia (3 days)                |  |



| 10035117-A  | UK-XX-XX-RP-ZZ-62 | 23-01-Data ( | Sap Areas GQRA               |                                 |
|-------------|-------------------|--------------|------------------------------|---------------------------------|
| Appendix F: | Summary of Sample | e Deviations | at Environmental Testing Lat | poratory                        |
| Lab         | Lab Deference     | Lab Na       | Comula ID                    | Deviation                       |
| LaD         | Lab Reference     | Lab No.      | Sample ID                    | Holding Time Exceeded for tests |



# **Appendix H**

# Comparison of Measured Concentrations of Contaminants of Concern in Soil with Human Health GAC

| Appendix H : ( | Comparison of Measured Concentrations of Co | C in Soil with GAC (mo | a/ka)              |            |            |            |            |            |            |            |            |            |            |                  |            |
|----------------|---|------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------------|------------|
|                |   |                        | Location           |            |            |            |            |            |            |            |            |            |            |                  |            |
|                |   |                        | Location ID        | F-BH114    | F-BH115    | F-BH115    | F-BH116    | F-BH116          | F-BH116    |
| Chemical       | Commonweak                                  | Redcar Remediation     | Sample Depth Range | 0.5        | 1.8        | 2.8        | 3.8        | 5.8        | 13.2       | 20.3       | 4.3        | 5          | 4.9        | 5.9              | 14         |
| Group          | Compound                                    | Criteria - Soil        | Sampled Date       | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 20/09/2022 | 20/09/2022 | 25/08/2022 | 25/08/2022 | 02/09/2022 | 02/09/2022       | 05/09/2022 |
|                |   |                        | Matrix Description | GMG        | GMG        | GMG        | GMG        | TFD        | TFD        | RMF        | GMG        | TFD        | SMG        | TFD              | TFD        |
|                |   |                        |                    | 00.000     | 01.000     |            | 07.000     |            |            | 10,000     |            |            | 4.400      | 11.000           | 10,000     |
| wetais         |   | 640                    | mg/kg              | 33,000     | 21,000     | - 0.1      | 5.0        | 7.5        | - 0.1      | 12,000     | - 51       | 73         | 6.0        | 14,000           | 10,000     |
|                | Benyllium                                   | 040                    | mg/kg              | 36         | 24         | 9.1        | 5.9        | <0.2       | 9.1        | 0.5        | 25         | 1.3        | <0.9       | 23               | 14         |
|                | Boron                                       | 240000                 | mg/kg              | 77         | 2.3        | 0.2        | 7.6        | 0.8        | 59         | 2.8        | 1 1        | 0.2        | 0.2        | 1.5              | 6.9        |
|                | Cadmium                                     | 190                    | mg/kg              | 0.4        | 0.4        | <0.1       | <0.1       | <0.1       | 0.1        | <0.1       | 8.2        | <0.1       | <0.1       | 0.7              | 0.0        |
|                | Chromium (hexavalent)                       | 33                     | mg/kg              | <1         | <1         | <1         | <1         | <1         | <1         | <1         | <1         | <1         | <1         | <1               | <1         |
|                | Chromium                                    | 8600                   | mg/kg              | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -                | -          |
|                | Chromium (Trivalent)                        |                        | mg/kg              | 42         | 120        | 6.8        | 9.9        | 3.3        | 37         | 17         | 180        | 2.2        | 6.1        | 230              | 23         |
|                | Copper                                      | 68000                  | mg/kg              | 23         | 70         | 4.9        | 5          | 3.6        | 21         | 21         | 100        | 1.5        | 3.2        | 62               | 16         |
|                | Iron  | -                      | mg/kg              | 19,000     | 42,000     | -          | 4100       | -          | -          | 21,000     | -          | -          | 7000       | 110,000          | 32,000     |
|                | Lead  | 2300                   | mg/kg              | 35         | 67         | 19         | 8.8        | 19         | 21         | 5.9        | 1200       | 14         | 22         | 23               | 14         |
|                | Manganese                                   | -                      | mg/kg              | 16,000     | 3800       | -          | 1300       | -          | -          | 450        |            | -          | 140        | 7600             | 390        |
|                | Melvedonum                                  | 58"                    | mg/kg              | 0.05       | <0.05      | <0.05      | <0.05      | <0.05      | <0.05      | <0.05      | <0.05      | <0.05      | <0.05      | <0.05            | <0.05      |
|                | Nickel                                      | 080                    | mg/kg              | 7.5        | 20         | 12         | 0.0        | 31         | 33         | 0.5        | 37         | 17         | 28         | 28               | 1.9        |
|                | Selenium                                    | -                      | mg/kg              | 5.4        | 1.5        | <0.5       | 3          | <0.5       | <0.5       | <0.5       | 2.5        | <0.5       | <0.5       | 23               | <0.5       |
|                | Tin   |                        | ma/ka              | 3          | 7.4        | =          | 1          | =          | =          | 1          | -          | =          | <1         | 3.1              | <1         |
|                | Zinc  | 730000                 | mg/kg              | 140        | 130        | 28         | 8.6        | 19         | 80         | 24         | 8400       | 17         | 17         | 120              | 53         |
| Asbestos       | Asbestos Quantification Total               |                        | %                  | 0.002      |            |            | -          | -          |            | -          | -          | -          | -          | -                | -          |
|                | Asbestos fibres                             |                        | Detect             | 1          | 0          | 0          | -          | -          | -          | -          | 0          | -          | 0          | -                | -          |
| Inorganics     | Chloride                                    |                        | mg/kg              | 363        | 87.6       | -          | 9.6        | -          | -          | 75.5       | -          | -          | 32.9       | 251              | 683        |
|                | Orthophosphate as P                         |                        | mg/kg              | 0.54       | 0.16       | -          | 0.13       | -          | -          | 0.15       | -          | -          | <0.1       | <0.1             | <0.1       |
| PAH            | PAH 16 Total                                | 4000                   | mg/kg              | 5.6        | 3.4        | <0.1       | <0.1       | <0.1       | <0.1       | <0.1       | 2.4        | <0.1       | <0.1       | 0.22             | <0.1       |
|                |   | 1900                   | mg/kg              | 0.04       | 0.04       | <0.03      | <0.03      | < 0.03     | <0.03      | < 0.03     | < 0.03     | < 0.03     | <0.03      | 0.14             | < 0.03     |
|                |   | 83000**                | mg/kg              | <0.03      | <0.05      | <0.05      | <0.05      | <0.03      | <0.03      | <0.03      | <0.03      | <0.05      | <0.05      | <0.05            | <0.05      |
|                | Fluoranthene                                | 23000                  | mg/kg              | 1.5        | 0.73       | <0.03      | <0.03      | <0.03      | <0.03      | <0.03      | 0.58       | <0.03      | <0.03      | 0.03             | <0.03      |
|                | Phenanthrene                                | 22000                  | mg/kg              | 0.97       | 0.29       | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.11       | < 0.03     | < 0.03     | 0.08             | < 0.03     |
|                | Fluorene                                    | 63000**                | mg/kg              | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03           | < 0.03     |
|                | Pyrene                                      | 54000                  | mg/kg              | 0.93       | 0.66       | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.42       | < 0.03     | < 0.03     | < 0.03           | < 0.03     |
|                | Benzo(a)anthracene                          | 170                    | mg/kg              | 0.3        | 0.31       | < 0.03     | < 0.03     | < 0.03     | <0.03      | < 0.03     | 0.14       | < 0.03     | <0.03      | < 0.03           | < 0.03     |
|                | Benzo(b)fluoranthene                        | 44                     | mg/kg              | 0.54       | 0.39       | < 0.03     | < 0.03     | < 0.03     | <0.03      | < 0.03     | 0.35       | < 0.03     | <0.03      | < 0.03           | < 0.03     |
|                | Benzo(k)fluoranthene                        | 1200                   | mg/kg              | 0.19       | 0.15       | <0.03      | <0.03      | < 0.03     | < 0.03     | < 0.03     | 0.15       | < 0.03     | < 0.03     | < 0.03           | < 0.03     |
|                | Benzo(a)pyrene                              | 77                     | mg/kg              | 0.17       | 0.25       | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.18       | < 0.03     | < 0.03     | < 0.03           | < 0.03     |
|                | Dibenz(a,h)anthracene                       | 3.5                    | mg/kg              | 0.04       | 0.03       | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | <0.03      | < 0.03     | <0.03      | < 0.03           | <0.03      |
|                | Indepo(1,2,3,c,d)pyrano                     | 3900                   | mg/kg              | 0.14       | 0.1        | <0.03      | <0.03      | < 0.03     | < 0.03     | < 0.03     | 0.14       | <0.03      | <0.03      | <0.03            | <0.03      |
| TPH CWG        | >C5-EC6 Alinhatics                          | 500                    | mg/kg              | <0.01      | <0.01      | <0.03      | <0.03      | <0.03      | <0.03      | <0.03      | 0.15       | -0.05      | <0.03      | <0.03            | <0.03      |
| in in one      | >C6-C8 Aliphatics                           | 7800**                 | mg/kg              | < 0.01     | < 0.01     | < 0.01     | <0.01      | < 0.01     | < 0.01     | < 0.01     | < 0.01     | <0.01      | < 0.01     | <0.01            | < 0.01     |
|                | >C8-C10 Aliphatics                          | 2000**                 | mg/kg              | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01           | < 0.01     |
|                | >C10-C12 Aliphatics                         | 9700**                 | mg/kg              | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5             | <1.5       |
|                | >C12-C16 Aliphatics                         | 59000**                | mg/kg              | <1.2       | <1.2       | <1.2       | <1.2       | <1.2       | <1.2       | <1.2       | <1.2       | 3.15       | <1.2       | <1.2             | <1.2       |
|                | >C16-C21 Aliphatics                         |                        | mg/kg              | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | <1.5       | 2.66       | 2.97       | <1.5       | <1.5             | <1.5       |
|                | >C21-C35 Aliphatics                         |                        | mg/kg              | <3.4       | <3.4       | <3.4       | <3.4       | <3.4       | <3.4       | <3.4       | 184.6      | <3.4       | <3.4       | 28.79            | <3.4       |
|                | I OTAL >C5 - C4U Aliphatics                 | 26000**                | mg/kg              | <10        | <10        | <10        | <10        | <10        | <10        | <10        | 193.3      | 16.44      | 13.78      | 37.72            | 14.15      |
|                | >EC3-EC7 Aromatics                          | 20000**                | mg/kg              | < 0.01     | < 0.01     | <0.01      | <0.01      | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01           | < 0.01     |
|                | >EC7-EC6 Aromatics                          | 3500**                 | mg/kg              | <0.01      | <0.01      | <0.01      | <0.01      | < 0.01     | <0.01      | <0.01      | <0.01      | <0.01      | <0.01      | <0.01            | <0.01      |
|                | >FC10-FC12 Aromatics                        | 16000**                | mg/kg              | <0.9       | <0.9       | <0.9       | <0.9       | <0.9       | <0.9       | <0.9       | <0.9       | <0.9       | <0.9       | <0.9             | <0.9       |
|                | >EC12-EC16 Aromatics                        | 36000**                | ma/ka              | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5            | < 0.5      |
|                | >EC16-EC21 Aromatics                        | 28000                  | mg/kg              | <0.6       | <0.6       | <0.6       | <0.6       | <0.6       | <0.6       | <0.6       | 0.61       | <0.6       | 1.4        | <0.6             | <0.6       |
|                | >EC21-EC35 Aromatics                        | 28000                  | mg/kg              | <1.4       | <1.4       | <1.4       | <1.4       | <1.4       | <1.4       | <1.4       | <1.4       | <1.4       | <1.4       | <1.4             | <1.4       |
|                | >EC35 - EC40 Aromatics                      |                        | mg/kg              | -          | -          | -          | -          | -          | -          | -          | <1.4       | <1.4       | <1.4       | <1.4             | <1.4       |
|                | >EC40-EC44 Aromatics                        |                        | mg/kg              | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -                | -          |
|                | Total >EC5 - EC40 Aromatics                 |                        | mg/kg              | <10        | <10        | <10        | <10        | <10        | <10        | <10        | <10        | <10        | <10        | <10              | <10        |
|                | I OTAL Aliphatics + Aromatics (>C5 - C40)   |                        | mg/kg              | <10        | <10        | <10        | <10        | <10        | <10        | <10        | 198.2      | 22.43      | 20.47      | 43.36            | 20.34      |
|                |   |                        | mg/kg              | <0.005     | -          | <0.002     | -          | <0.002     | <0.002     | -          | -          | <0.002     | <0.002     | <u>&lt;0.002</u> | -          |
|                | Fthylbenzene                                |                        | ma/ka              | <0.005     | -          | <0.005     |            | <0.005     | <0.005     | -          | -          | <0.005     | <0.000     | <0.001           |            |
|                | Xvlene (m & p)                              |                        | ma/ka              | -0.002     | _          | -0.002     | _          | -0.002     | <0.01      | _          |            | =          | =          | =                | _          |
|                | Xylene (o)                                  |                        | mg/kg              | < 0.002    | -          | < 0.002    | -          | < 0.002    | < 0.002    | -          | -          | < 0.002    | < 0.002    | < 0.002          | -          |
|                | Xylene Total                                |                        | mg/kg              | -          |            | -          | -          |            | -          |            | -          | -          | -          | -                | -          |
|                | МТВЕ  |                        | mg/kg              | < 0.005    | -          | < 0.005    | -          | < 0.005    | < 0.005    | -          | -          | < 0.005    | < 0.005    | < 0.005          | -          |



|          |                             |                    | Location ID        | F-BH114    | F-BH115    | F-BH115    | E-BH116    | F-BH116    | F-BH116    |
|----------|-----------------------------|--------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                             | Redcar Remediation | Sample Denth Pange | 0.5        | 1.8        | 2.8        | 2.8        | 5.8        | 13.2       | 20.3       | / 3        | 5          | 19         | 59         | 1/         |
| Croup    | Compound                    |                    | Sampled Date       | 16/00/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/00/2022 | 20/00/2022 | 20.3       | 25/08/2022 | 25/08/2022 | 02/00/2022 | 02/00/2022 | 05/00/2022 |
| Group    |                             | Criteria - Soli    | Sampled Date       | 10/03/2022 | 10/03/2022 | 10/03/2022 | 10/03/2022 | 10/03/2022 | 20/03/2022 | 20/03/2022 | 20/00/2022 | 23/00/2022 | 02/03/2022 | 02/03/2022 | 03/03/2022 |
|          |                             |                    | Matrix Description | GMG        | GMG        | GMG        | GMG        | TFD        | TFD        | RMF        | GMG        | TFD        | SMG        | TFD        | TFD        |
| VOC      | Styrene                     |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          |            | -          |
|          | cis-1,3-dichloropropene     |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | trans-1,3-dichloropropene   |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,1,1,2-tetrachloroethane   |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,1,1-trichloroethane       |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,1,2-trichloroethane       |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloroethane          |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloroethene          |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloropropene         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2,3-trichloropropane      |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trimethylbenzene      |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromo-3-chloropropane |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromoethane           |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloroethane          |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloropropane         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,3,5-trimethylbenzene      |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichloropropane         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 2,2-dichloropropane         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 2-chlorotoluene             |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 4-chlorotoluene             |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Bromobenzene                |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Bromochloromethane          |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Bromodichloromethane        |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Bromoform                   |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Carbon tetrachloride        |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Chlorodibromomethane        |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Chloroform                  |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | cis-1,2-dichloroethene      |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Dibromomethane              |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Isopropylbenzene            |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | n-butylbenzene              |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | n-propylbenzene             |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | p-isopropyltoluene          |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | sec-butylbenzene            |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Trichloroethene             |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | tert-butylbenzene           |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Tetrachloroethene           |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | trans-1,2-dichloroethene    |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Vinyl chloride              |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | tert-Amyl methyl ether      |                    | mg/kg              | < 0.005    | -          | < 0.005    | -          | < 0.005    | < 0.005    | -          | -          | < 0.005    | < 0.005    | < 0.005    | -          |
| VOC/SVOC | 1,2,3-trichlorobenzene      |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trichlorobenzene      |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichlorobenzene         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichlorobenzene         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 1,4-dichlorobenzene         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Chlorobenzene               |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobutadiene         |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |



|          |                              |                    | Location ID        | F-BH114    | F-BH115    | F-BH115    | F-BH116    | F-BH116    | F-BH116    |
|----------|------------------------------|--------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                              | Redcar Remediation | Sample Depth Range | 0.5        | 1.8        | 2.8        | 3.8        | 5.8        | 13.2       | 20.3       | 4.3        | 5          | 4.9        | 5.9        | 14         |
| Group    | Compound                     | Criteria - Soil    | Sampled Date       | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 20/09/2022 | 20/09/2022 | 25/08/2022 | 25/08/2022 | 02/09/2022 | 02/09/2022 | 05/09/2022 |
|          |                              |                    | Matrix Description | GMG        | GMG        | GMG        | GMG        | TED        | TED        | RMF        | GMG        | TED        | SMG        | TED        | TED        |
|          |                              |                    |                    | 00         | Cinic      | Cinc       | Cinc       |            | n e        |            | Cinico     |            | Child      | n e        | n e        |
| SVOC     | 1,4-dinitrobenzene           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Benzyl alcohol               |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 4-bromophenyl phenyl ether   |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 4-nitroaniline               |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 4-nitrophenol                |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 1,2-Dinitrobenzene           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 1,3-Dinitrobenzene           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 2,3,4,6-tetrachlorophenol    |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 2,3,5,6-1 etrachlorophenol   |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 2,4,5-trichlorophenol        |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 2,4,6-tricnioropnenoi        |                    | mg/kg              | -          | -          | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          |
|          |                              |                    | mg/kg              | -          | -          | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          |
|          | 2,4-dimethylphenol           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          |
|          | 2,4-dinitrololuene           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 2,6-dichiorophenol           |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | 2.6 dinitrateluene           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.01      | -          | -          | -          | -          |            | -          |
|          | 2,0-uiiiii 0ioluene          |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          |            | -          |
|          | 2-chloronhenol               |                    | mg/kg              | -          |            |            |            |            | <0.1       |            | _          |            | _          |            |            |
|          | 2-methylnanhthalene          |                    | mg/kg              |            |            |            |            |            | <0.1       |            |            |            |            |            |            |
|          | 2-methylphenol               |                    | mg/kg              | _          |            |            |            |            | <0.1       |            | _          |            |            |            |            |
|          | 2-nitroaniline               |                    | mg/kg              | -          |            |            | _          | _          | <0.1       | _          | -          | _          | -          | _          |            |
|          | 3-nitroaniline               |                    | ma/ka              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | _          | _          |
|          | 4.6-Dinitro-2-methylphenol   |                    | ma/ka              | -          | _          | _          | _          | _          | <0.1       | _          | -          | -          | -          | -          | _          |
|          | 4-chlorophenyl phenyl ether  |                    | ma/ka              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | 4-methylphenol               |                    | mg/kg              | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          |
|          | Azobenzene                   |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | _          | -          |
|          | Bis(2-chloroethoxy) methane  |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroisopropyl) ether |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Bis(2-ethylhexyl) phthalate  |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Butyl benzyl phthalate       |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Carbazole                    |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Dibenzofuran                 |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Diethylphthalate             |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Dimethyl phthalate           |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Di-n-butyl phthalate         |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Di-n-octyl phthalate         |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Diphenylamine                |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobenzene            |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Hexachlorocyclopentadiene    |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |
|          | Pentachlorophenol            |                    | mg/kg              | -          | -          | -          | -          | -          | <0.1       | -          | -          | -          | -          | -          | -          |



|           |   |                           | Location ID        | F-BH114    | F-BH114    | F-BH114    | F-BH114    | F-BH114    | F-BH114     | F-BH114    | F-BH115    | F-BH115    | F-BH116    | F-BH116    | F-BH116    |
|-----------|---|---------------------------|--------------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|------------|
| Chemical  | 0   | <b>Redcar Remediation</b> | Sample Depth Range | 0.5        | 1.8        | 2.8        | 3.8        | 5.8        | 13.2        | 20.3       | 4.3        | 5          | 4.9        | 5.9        | 14         |
| Group     | Compound                                      | Criteria - Soil           | Sampled Date       | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 16/09/2022 | 20/09/2022  | 20/09/2022 | 25/08/2022 | 25/08/2022 | 02/09/2022 | 02/09/2022 | 05/09/2022 |
|           |   |                           | Matrix Description | GMG        | GMG        | GMG        | GMG        | TFD        | TFD         | RMF        | GMG        | TFD        | SMG        | TFD        | TFD        |
| PCB       | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB 189) |                           | mg/kg              | < 0.01     | -          | -          | < 0.01     | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                           | mg/kg              | < 0.01     | -          | -          | < 0.01     | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                           | mg/kg              | < 0.01     | -          | -          | < 0.01     | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 101                                       |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 118                                       |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 138                                       |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 153                                       |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 180                                       |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 28 + PCB 31                               |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | PCB 52  |                           | mg/kg              | < 0.01     | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                           | mg/kg              | < 0.01     | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                           | mg/kg              | <0.01      | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
|           | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                           | mg/kg              | <0.01      | -          | -          | < 0.01     | -          | -           | -          | -          | -          | <0.01      | -          | -          |
|           | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                           | mg/kg              | <0.01      | -          | -          | < 0.01     | -          | -           | -          | -          | -          | <0.01      | -          | -          |
|           | Total PCB 7 Congeners                         |                           | mg/kg              | < 0.01     | -          | -          | <0.01      | -          | -           | -          | -          | -          | < 0.01     | -          | -          |
| Phenolics | 3-&4-methylphenol                             |                           | mg/kg              | -          | -          | -          | -          | -          | <0.1        | -          | -          | -          | -          | -          | -          |
|           | Phenol  |                           | mg/kg              | <0.3       | < 0.3      | <0.3       | 0.7        | <0.3       | <0.01 - 0.4 | <0.3       | <0.3       | <0.3       | < 0.3      | <0.3       | <0.3       |
| SVOC TIC  | Aniline                                       |                           | mg/kg              | -          | -          | -          | -          | -          | <0.1        | -          | -          | -          | -          | -          | -          |
| NA        | 4-chloro-2-methylphenol                       |                           | mg/kg              | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | -          | -          |
| NI - 4    |   |                           |                    |            |            |            |            |            |             |            |            |            |            |            |            |

Notes

Exceeds - Adopted Screening Criteria



| Annendix H · C | Comparison of Measured Concentrations of Co | C in Soil with GAC (m |            |               |            |            |            |            |                   |                   |                   |         |               |                   |
|----------------|---|-----------------------|------------|---------------|------------|------------|------------|------------|-------------------|-------------------|-------------------|---------|---------------|-------------------|
|                | omparison of medsured opneentiations of oc  |                       |            |               | Worksho    | p/Stores   |            |            |                   |                   |                   |         |               |                   |
|                |   |                       | F-BH116    | F-TP115       | F-TP115    | F-TP115    | F-TP116    | F-TP116    | F-TP116           | F-TP116           | F-TP116           | F-TP116 | F-TP117       | F-TP117           |
| Chemical       | Compound                                    | Redcar Remediation    | 20.55      | 0.3           | 1.5        | 2.3        | 0.2        | 0.8        | 1.5               | 3.1               | 4.1               | 4.5     | 0.5           | 1.5               |
| Group          |   | Criteria - Soli       | 00/09/2022 | 21109/2022    | 21109/2022 | 21109/2022 | 06/10/2022 | 00/10/2022 | 0//10/2022<br>SMC | 07/10/2022<br>SMC | 0//10/2022<br>SMC | SMC     | 21/09/2022    | 21/09/2022<br>SMC |
| Madala         |   |                       | RIVIE      | GMG           | GIVIG      |            |            | GING       | SMG               | 5WG               |                   | SING    | GIVIG         |                   |
| wetais         | Aiuminium                                   | 640                   | 71         | 9600          | -          | 11,000     | 22,000     | 91         | 23,000            | 19,000            | 20                | - 18    | 5800          | 4200              |
|                | Beryllium                                   | 040                   | 1          | 1.1           | -          | 1.4        | 2.3        | 2.3        | 2.4               | 1.6               | 1.6               | 1.1     | 0.9           | 0.5               |
|                | Boron                                       | 240000                | 7.4        | 2.2           | -          | 2.4        | 5.3        | 13         | 11                | 3                 | 2.9               | 3.1     | 1.7           | 1.1               |
|                | Cadmium<br>Chromium (hoxovalant)            | 190                   | 0.1        | 0.5           | -          | 0.5        | 0.1        | 1.3        | 0.2               | 0.6               | 0.5               | 1       | 0.8           | 0.4               |
|                | Chromium                                    | 8600                  | -          | -             |            | -          | -          | -          | -                 | -                 | -                 | -       | -             |                   |
|                | Chromium (Trivalent)                        |                       | 31         | 120           | -          | 240        | 120        | 90         | 93                | 120               | 90                | 51      | 110           | 240               |
|                | Copper                                      | 68000                 | 25         | 41            | -          | 38         | 11         | 16         | 33                | 46                | 33                | 29      | 72            | 37                |
|                | Iron<br>Lead                                | - 2300                | - 13       | 35,000        | -          | 38,000     | 64         | - 23       | 35,000            | 95<br>95          | 45,000            | 82      | 58,000        | 50,000            |
|                | Manganese                                   | -                     | -          | 3600          | -          | 5900       | 10,000     | -          | 37,000            | 3900              | 4300              | -       | 7300          | 10,000            |
|                | Mercury                                     | 58*                   | < 0.05     | 0.14          | -          | < 0.05     | < 0.05     | < 0.05     | < 0.05            | < 0.05            | < 0.05            | < 0.05  | < 0.05        | < 0.05            |
|                | Molybdenum<br>Nickol                        | 090                   | - 22       | 1.6           | -          | 2          | 0.9        | - 5.0      | 4.2               | 4.9               | 1.5               | - 10    | 1.2           | 1                 |
|                | Selenium                                    | 900                   | <0.5       | 2.2           | -          | 2.4        | 4.4        | 4.7        | 19                | 2.1               | 1.9               | 1.3     | 3.2           | 4.5               |
|                | Tin   |                       | -          | 4.3           | -          | 5.8        | 1.2        | -          | 2.4               | 3.4               | 3.3               | -       | 4.9           | 4.8               |
| Achester       |   | 730000                | 42         | 170           | -          | 160        | 24         | 72         | 31                | 170               | 340               | 1100    | 160           | 54                |
| ASDESTOS       | Aspestos Quantification Total               |                       | -          | 0.003         | 0.003      | 0.003      | - 0        | - 0        | - 0               | - 0               | -                 | -       | - 0           |                   |
| Inorganics     | Chloride                                    |                       | -          | 89.5          | -          | 63.9       | 66         | -          | 281               | 161               | 165               | -       | 371           | 334               |
|                | Orthophosphate as P                         |                       | -          | 0.23          | -          | 0.22       | 0.39       | -          | 0.69              | 0.74              | 0.24              | -       | 0.95          | 0.29              |
| PAH            | PAH 16 Total                                | 1000                  | <0.1       | 5.8           | -          | 4.7        | 9.4        | 8.3        | 3.2               | 3                 | 3.2               | 10      | 15            | 0.32              |
|                | Acenaphthene                                | 84000**               | < 0.03     | 0.03          |            | <0.03      | < 0.03     | < 0.03     | < 0.03            | < 0.03            | < 0.03            | 0.05    | 0.05          | <0.03             |
|                | Acenaphthylene                              | 83000**               | -          | -             | -          | -          | -          | -          | -                 | -                 | -                 | -       | -             | -                 |
|                | Fluoranthene                                | 23000                 | < 0.03     | 1.3           | -          | 0.99       | 2.2        | 1.9        | 0.62              | 0.65              | 0.86              | 2.4     | 3.2           | 0.06              |
|                | Phenanthrene                                | 63000**               | < 0.03     | 0.49          | -          | 0.4        | 1.1        | 0.61       | 0.25              | <0.037            | 0.33              | 2.2     | 1.6           | 0.04              |
|                | Pyrene                                      | 54000                 | < 0.03     | 1.2           | -          | 0.97       | 1.5        | 1.6        | 0.5               | 0.48              | 0.62              | 1.8     | 2.4           | 0.04              |
|                | Benzo(a)anthracene                          | 170                   | < 0.03     | 0.45          | -          | 0.36       | 0.91       | 0.83       | 0.32              | 0.27              | 0.3               | 0.83    | 1.4           | < 0.03            |
|                | Benzo(b)fluoranthene                        | 44                    | < 0.03     | 0.56          | -          | 0.5        | 0.94       | 0.83       | 0.43              | 0.33              | 0.27              | 0.57    | 1.6           | 0.05              |
|                | Benzo(a)pyrene                              | 77                    | < 0.03     | 0.32          |            | 0.22       | 0.68       | 0.30       | 0.18              | 0.12              | 0.11              | 0.25    | 1             | <0.03             |
|                | Dibenz(a,h)anthracene                       | 3.5                   | < 0.03     | 0.06          | -          | 0.04       | 0.07       | 0.05       | < 0.03            | < 0.03            | <0.03             | 0.04    | 0.18          | < 0.03            |
|                | Benzo(g,h,i)perylene                        | 3900                  | < 0.03     | 0.2           | -          | 0.17       | 0.29       | 0.29       | 0.13              | 0.11              | 0.09              | 0.15    | 0.51          | 0.04              |
| TPH CWG        | Indeno(1,2,3-c,d)pyrene                     | 500                   | <0.03      | 0.17<br><0.01 | -          | 0.16       | 0.27       | 0.25       | 0.14              | 0.1               | <0.06             | 0.12    | <u>0.46</u>   | 0.04              |
| in in one      | >C6-C8 Aliphatics                           | 7800**                | < 0.01     | < 0.01        | -          | < 0.01     | < 0.01     | < 0.01     | <0.01             | <0.01             | < 0.01            | < 0.01  | < 0.01        | < 0.01            |
|                | >C8-C10 Aliphatics                          | 2000**                | < 0.01     | < 0.01        | -          | < 0.01     | < 0.01     | < 0.01     | <0.01             | < 0.01            | < 0.01            | < 0.01  | <0.01         | < 0.01            |
|                | >C10-C12 Aliphatics                         | 9700**                | <1.5       | <1.5          | -          | <1.5       | <1.5       | <1.5       | <1.5              | <1.5              | <1.5              | <1.5    | <1.5          | <1.5              |
|                | >C16-C21 Aliphatics                         | 33000                 | <1.5       | 35            | -          | <1.5       | 4.2        | <1.5       | 1.9               | <1.5              | <1.5              | <1.5    | <1.5          | <1.5              |
|                | >C21-C35 Aliphatics                         |                       | <3.4       | 200           | -          | <3.4       | 110        | 14         | 38                | <3.4              | <3.4              | <3.4    | <3.4          | <3.4              |
|                | Total >C5 - C40 Aliphatics                  | 26000**               | -          | 250           | -          | <10        | 140        | 16         | 45                | <10               | <10               | <10     | <10           | <10               |
|                | >EC3-EC7 Aromatics                          | 56000**               | < 0.01     | <0.01         | -          | <0.01      | <0.01      | <0.01      | <0.01             | <0.01             | <0.01             | <0.01   | <0.01         | <0.01             |
|                | >EC8-EC10 Aromatics                         | 3500**                | < 0.01     | < 0.01        | -          | < 0.01     | < 0.01     | < 0.01     | < 0.01            | < 0.01            | < 0.01            | < 0.01  | < 0.01        | < 0.01            |
|                | >EC10-EC12 Aromatics                        | 16000**               | < 0.9      | <0.9          | -          | <0.9       | <0.9       | <0.9       | <0.9              | <0.9              | <0.9              | <0.9    | < 0.9         | < 0.9             |
|                | >EC12-EC16 Aromatics                        | 36000**               | <0.5       | <u> </u>      | -          | <0.5       | <0.5       | <0.5       | <0.5              | <0.5              | <0.5              | <0.5    | <0.5          | < 0.5             |
|                | >EC21-EC35 Aromatics                        | 28000                 | <1.4       | 460           | -          | 42         | 65         | 4.4        | 22                | 1.5               | <1.4              | 1.9     | 85            | <1.4              |
|                | >EC35 - EC40 Aromatics                      |                       | <1.4       | -             | -          | -          | -          | -          | -                 | -                 | -                 | -       | -             | -                 |
|                | >EC40-EC44 Aromatics                        |                       | <1.4       | - 610         | -          | -          | -          | -          | -                 | -                 | -                 | -       | - 100         | -                 |
|                | Total Aliphatics + Aromatics (>C5 - C40)    |                       | -          | 850           | -          | 61         | 220        | 24         | 71                | <10               | <10               | <10     | 120           | <10               |
| BTEX and       | Benzene                                     |                       | -          | < 0.002       | -          | -          | -          | < 0.002    | -                 | < 0.002           | <0.002            | =       | <0.01 - 0.005 | -                 |
| МТВЕ           | Toluene                                     |                       | -          | < 0.005       | -          | _          | -          | < 0.005    | -                 | < 0.005           | < 0.005           | -       | < 0.005       |                   |
|                | Ethylbenzene<br>Xvlene (m & n)              |                       | -          | <0.002        | -          | -          | -          | <0.002     | -                 | < 0.002           | <0.002            | -       | <0.002        |                   |
|                | Xylene (o)                                  |                       | -          | < 0.002       | -          | -          | -          | < 0.002    | -                 | < 0.002           | < 0.002           | -       | < 0.002       |                   |
|                | Xylene Total                                |                       | -          | -             | -          | -          | -          | -          | -                 | -                 | -                 | -       | -             | -                 |
|                | МТВЕ  |                       | -          | < 0.005       | -          | -          | -          | < 0.005    | -                 | <0.005            | < 0.005           | -       | <0.005        | -                 |



| Change of the second |          |                             |                    | F-BH116    | F-TP115    | F-TP115    | F-TP115    | F-TP116    | F-TP116    | F-TP116    | F-TP116    | F-TP116    | F-TP116    | F-TP117    | F-TP117    |
|--|----------|-----------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Group       Contents - base  | Chemical |                             | Redcar Remediation | 20.55      | 0.3        | 1.5        | 2.3        | 0.2        | 0.8        | 1.5        | 3.1        | 4.1        | 4.5        | 0.5        | 1.5        |
| Not       Nume       Num       Nume       Nume       N  | Group    | Compound                    | Criteria - Soil    | 06/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 06/10/2022 | 06/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 27/09/2022 | 27/09/2022 |
| None       None       None       No       o      No <th< th=""><th></th><th></th><th></th><th>RMF</th><th>GMG</th><th>GMG</th><th>GMG</th><th>GMG</th><th>GMG</th><th>SMG</th><th>SMG</th><th>SMG</th><th>SMG</th><th>GMG</th><th>SMG</th></th<>  |          |                             |                    | RMF        | GMG        | GMG        | GMG        | GMG        | GMG        | SMG        | SMG        | SMG        | SMG        | GMG        | SMG        |
| op:13-schloroporten       i  | VOC      | Styrene                     |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| Tara 1-3 doi:100       Tara 1-3 doi:1000000000000000000000000000000000000  |          | cis-1,3-dichloropropene     |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.1.4 zetes horsebane  |          | trans-1,3-dichloropropene   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.1.1-decisionethnine   -   -   -   -   -   -   -   -   0.01   -     1.1.1-decisionethnine   -   -   -   -   -   -   0.01   -   0.01   -     1.1.1-decisionethnine   -   -   -   -   0.0   -   0.01   -   0.01   -     1.1.1-decisionethnine   -   0.0   -   0.0   0.0   0.0   0.0   0.0   0.0   0.0     1.2.4-deficionethnine   -   0.0 <th></th> <th>1,1,1,2-tetrachloroethane</th> <th></th> <th>-</th> <th>&lt; 0.01</th> <th>-</th>  |          | 1,1,1,2-tetrachloroethane   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 11.2 database       1       <  |          | 1,1,1-trichloroethane       |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| 1.1.den/norgettime <th></th> <th>1,1,2-trichloroethane</th> <th></th> <th>-</th> <th>&lt;0.01</th> <th>-</th>   |          | 1,1,2-trichloroethane       |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| 1.1-dichicrosphere       -   |          | 1,1-dichloroethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| 11.4de/incorponent   -<  |          | 1,1-dichloroethene          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| 12.3-Wichlogophane       -   |          | 1,1-dichloropropene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 12.4 timelyberizere       -       -       -       -       -       -       -       -       -       0.0       -       0.0       -       0.0       1       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0       0.0 <th< th=""><th></th><th>1,2,3-trichloropropane</th><th></th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>&lt; 0.01</th><th>-</th></th<>   |          | 1,2,3-trichloropropane      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.2-documos-schiorogogone       . <th></th> <th>1,2,4-trimethylbenzene</th> <th></th> <th>-</th> <th>&lt; 0.01</th> <th>-</th>  |          | 1,2,4-trimethylbenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.2-dicinceshane       1   |          | 1,2-dibromo-3-chloropropane |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.2 decisionestina       -       -       -       -       -       -       -       -       -       0   |          | 1,2-dibromoethane           |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.2 definitoryopane   -   -   -   -   -   -   -   -   0.0   -   0.0  |          | 1,2-dichloroethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| 1.3.schmeinhuberzene       -       -       -       -       -       -       -       -       0.0       -         2.3.delingroppane       -       -       -       -       -       -       -       -       0.0       -       -       0.0       -       0.0       -       0.0       -       0.0       -       0.0       -       0.0 </th <th></th> <th>1,2-dichloropropane</th> <th></th> <th>-</th> <th>&lt; 0.01</th> <th>-</th>   |          | 1,2-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 1.4-dictorgroppine       -       -       -       -       -       -       -       -       0.001       -         2-dictordorgroppine       -       -       -       -       -       -       -       -       -       -       -       0.001       -       -       0.001       -       -       0.001       -       -       0.001       -       0   |          | 1,3,5-trimethylbenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 22-denicotolucene       -       -       -       -       -       -       -       -       -       -       -       0.011       -         4-chiorotolucene       -       -       -       -       -       -       -       -       0.011       <   |          | 1,3-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 2-chiorobleme       -       -       -       -       -       -       -       0.01       -         Bromobenzene       -       -       -       -       -       -       0.01       -       0.01 <th></th> <th>2,2-dichloropropane</th> <th></th> <th>-</th> <th>&lt; 0.01</th> <th>-</th>  |          | 2,2-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| 4-chioroluene       -       -       -       -       -       -       -       -       0       <  |          | 2-chlorotoluene             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Bromochloromethane       -       -       -       -       -       -       -       -       -       -       0       0       -       0       0       -       0   |          | 4-chlorotoluene             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Bromode/informe#hane       -   |          | Bromobenzene                |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Bromodomonethane       -       -       -       -       -       -       -       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       -       0.01       0.01       -       0.01  |          | Bromochloromethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Brondord       C<  |          | Bromodichloromethane        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| Carbon letrachioned       -       -       -       -       -       -       -       -       -       -       0.011       -         Chioroiformomethane       -       -       -       -       -       -       -       -       -       0.011       -       -       0.011       -       -       0.011  |          | Bromoform                   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Chorodoromomenane        |          | Carbon tetrachloride        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          |
| Choirorom       Choirorom <t< th=""><th></th><th>Chlorodibromomethane</th><th></th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>&lt;0.01</th><th>-</th></t<>  |          | Chlorodibromomethane        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| bis-1/2-dictione/enee       -  |          | Chloroform                  |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      |            |
| Dioromethane       - <t< th=""><th></th><th>cis-1,2-dichloroethene</th><th></th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>&lt;0.01</th><th>-</th></t<>   |          | cis-1,2-dichloroethene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Isopropyloenzene       -   |          | Dibromomethane              |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| In-program       Image: Construction of the construc           |          | Isopropylbenzene            |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| In-propryoenzene       Image: Constraint of the co           |          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Pisophognicidentie       Image: Section of the sectin of the section of the section of the section of the s           |          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Sec-dulyberizerie       Image: Construction of the second s           |          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Includentine       Image: Constraint of the constr           |          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Intercharge        |          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      |            |
| Instaction of the field       Image: Second S           |          | Totrophoroothono            |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Hais-1-2uction definite       Image: 1-2uction definit       Image: 1-2uction definite       Image   |          | trans 1.2 dichloroothono    |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      | -          |
| Vinverticibilitie       Image: Constraint of the second of the sec           |          | Vinul obleride              |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.01      |            |
| VOC/SVOC       1,2,3-trichlorobenzene       -       -       -       -       -       -       -       <  |          | tert-Amyl methyl ether      |                    | -          | <0.005     |            | -          |            | <0.005     |            | <0.005     | <0.005     | -          | <0.01      | -          |
| 1,2,0-trainedocitation     - <th>VOC/SVOC</th> <th>1 2 3-trichlorobenzene</th> <th></th> <th>-</th> <th>~0.005</th> <th>-</th> <th>-</th> <th>-</th> <th>~0.005</th> <th></th> <th>~0.000</th> <th>~0.000</th> <th>-</th> <th>&lt;0.000</th> <th>-</th>  | VOC/SVOC | 1 2 3-trichlorobenzene      |                    | -          | ~0.005     | -          | -          | -          | ~0.005     |            | ~0.000     | ~0.000     | -          | <0.000     | -          |
| 1,2-training operation     - <th>100/0400</th> <th>1.2.4-trichlorobenzene</th> <th></th> <th></th> <th>-</th> <th>-</th> <th>-</th> <th></th> <th></th> <th></th> <th></th> <th>-</th> <th></th> <th>&lt;0.01</th> <th>-</th>  | 100/0400 | 1.2.4-trichlorobenzene      |                    |            | -          | -          | -          |            |            |            |            | -          |            | <0.01      | -          |
| 1,2-division of the construction     -      -     -  |          |                             |                    | -          |            | -          | -          | -          | -          |            | -          | -          | -          | <0.01      | -          |
| 1,0-divide Definition  |          | 1 3-dichlorobenzene         |                    | -          |            |            |            |            |            |            |            |            |            | <0.01      | -          |
| Chlorobenzene     Image: Construction of the state of                    |          | 1 4-dichlorobenzene         |                    |            | -          | -          | -          |            |            |            |            | -          |            | <0.01      | -          |
| Hexachlorobutadiene  |          | Chlorobenzene               |                    |            |            | _          | _          |            |            | _          |            |            |            | <0.01      |            |
|  |          | Hexachlorobutadiene         |                    |            | =          | -          | -          | =          | =          | =          | =          |            |            | <0.01      |            |



| Chemical<br>Group | Compound                     | Redcar Remediation<br>Criteria - Soil | F-BH116<br>20.55<br>06/09/2022 | F-TP115<br>0.3<br>27/09/2022 | F-TP115<br>1.5<br>27/09/2022 | F-TP115<br>2.3<br>27/09/2022 | F-TP116<br>0.2<br>06/10/2022 | F-TP116<br>0.8<br>06/10/2022 | F-TP116<br>1.5<br>07/10/2022 | F-TP116<br>3.1<br>07/10/2022 | F-TP116<br>4.1<br>07/10/2022 | F-TP116<br>4.5<br>07/10/2022 | F-TP117<br>0.5<br>27/09/2022 | F-TP117<br>1.5<br>27/09/2022 |
|-------------------|------------------------------|---------------------------------------|--------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Croup             |                              |                                       | RMF                            | GMG                          | GMG                          | GMG                          | GMG                          | GMG                          | SMG                          | SMG                          | SMG                          | SMG                          | GMG                          | SMG                          |
| SVOC              | 1,4-dinitrobenzene           |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Benzyl alcohol               |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 4-bromophenyl phenyl ether   |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 4-nitroaniline               |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 4-nitrophenol                |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 1,2-Dinitrobenzene           |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 1,3-Dinitrobenzene           |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2,3,4,6-tetrachlorophenol    |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2,3,5,6-Tetrachlorophenol    |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2,4,5-trichlorophenol        |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2,4,6-trichlorophenol        |                                       | -                              | -                            | -                            | -                            | -                            | <0.01                        | -                            | -                            | < 0.01                       | -                            | <0.1                         | <0.01                        |
|                   | 2,4-dichlorophenol           |                                       | -                              | -                            | -                            | -                            | -                            | <0.01                        | -                            | -                            | < 0.01                       | -                            | <0.1                         | <0.01                        |
|                   | 2,4-dimethylphenol           |                                       | -                              | -                            | -                            | -                            | -                            | <0.01                        | -                            | -                            | < 0.01                       | -                            | <0.1                         | <0.01                        |
|                   | 2,4-dinitrotoluene           |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2,6-dichlorophenol           |                                       | -                              | -                            | -                            | -                            | -                            | < 0.01                       | -                            | -                            | < 0.01                       | -                            | -                            | <0.01                        |
|                   | 2,6-Dimethylphenol           |                                       | -                              | -                            | -                            | -                            | -                            | <0.01                        | -                            | -                            | < 0.01                       | -                            | -                            | <0.01                        |
|                   | 2,6-dinitrotoluene           |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2-chloronaphthalene          |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2-chlorophenol               |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2-methylnaphthalene          |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | 0.2                          | -                            |
|                   | 2-methylphenol               |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 2-nitroaniline               |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 3-nitroaniline               |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 4,6-Dinitro-2-methylphenol   |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 4-chlorophenyl phenyl ether  |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | 4-methylphenol               |                                       | -                              | -                            | -                            | -                            | -                            | <0.01                        | -                            | -                            | <0.01                        | -                            | -                            | <0.01                        |
|                   | Azobenzene                   |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Bis(2-chloroethoxy) methane  |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Bis(2-chioroisopropyi) ether |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Bis(2-ethylnexyl) phinalate  |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Butyl benzyl phthalate       |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Dihanzafuran                 |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | 0.5                          | -                            |
|                   | Dipenzolulari                |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | 0.2                          | -                            |
|                   | Diethylphthalate             |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Dineury philalate            |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Di n octul phthalate         |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   |                              |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   |                              |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Hexachlorocyclopentadione    |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | Pentachlorophenol            |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | -                            | <0.1                         | -                            |
|                   | генаснююрнены                |                                       | -                              | -                            | -                            | -                            | -                            | -                            | -                            |                              | -                            | -                            | <u>\</u> U. I                | -                            |



|           |   |                           | F-BH116    | F-TP115    | F-TP115    | F-TP115    | F-TP116    | F-TP116    | F-TP116    | F-TP116    | F-TP116    | F-TP116    | F-TP117    | F-TP117    |
|-----------|---|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical  |   | <b>Redcar Remediation</b> | 20.55      | 0.3        | 1.5        | 2.3        | 0.2        | 0.8        | 1.5        | 3.1        | 4.1        | 4.5        | 0.5        | 1.5        |
| Group     | Compound                                      | Criteria - Soil           | 06/09/2022 | 27/09/2022 | 27/09/2022 | 27/09/2022 | 06/10/2022 | 06/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 07/10/2022 | 27/09/2022 | 27/09/2022 |
|           |   |                           | RMF        | GMG        | GMG        | GMG        | GMG        | GMG        | SMG        | SMG        | SMG        | SMG        | GMG        | SMG        |
| РСВ       | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB 189) |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 101                                       |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 118                                       |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 138                                       |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 153                                       |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 180                                       |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 28 + PCB 31                               |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | PCB 52  |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
|           | Total PCB 7 Congeners                         |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | < 0.01     | -          |
| Phenolics | 3-&4-methylphenol                             |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.1       | -          |
|           | Phenol  |                           | < 0.3      | <0.3       | -          | < 0.3      | <0.3       | < 0.01     | < 0.3      | < 0.3      | < 0.01     | < 0.3      | <0.1       | < 0.01     |
| SVOC TIC  | Aniline                                       |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | <0.1       | -          |
| NA        | 4-chloro-2-methylphenol                       |                           | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     | -          | <0.1       | < 0.01     |
| Notes     |   |                           |            |            |            |            |            |            |            |            |            |            |            |            |

10100

Exceeds - Adopted Scre



| Appendix H : C | Comparison of Measured Concentrations of C | oC in Soil with GAC (m | c       |                   |                   |                   |            |              |                          |            |            |            |            |                          |
|----------------|--|------------------------|---------|-------------------|-------------------|-------------------|------------|--------------|--------------------------|------------|------------|------------|------------|--------------------------|
|                |  |                        |         |                   |                   |                   |            |              |                          |            |            |            |            |                          |
| Chamiaal       |  | Dadaar Damadiatian     | F-TP117 | F-BH120           | F-BH120           | F-BH120           | F-BH120    | F-BH120      | F-BH124                  | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH125                  |
| Group          | Compound                                   | Criteria - Soil        | 2.5     | 3.5<br>02/08/2022 | 4.5<br>02/08/2022 | 5.5<br>02/08/2022 | 03/08/2022 | 03/08/2022   | <u>3.8</u><br>01/08/2022 | 01/08/2022 | 01/08/2022 | 02/08/2022 | 02/08/2022 | <u>3.8</u><br>04/08/2022 |
|                |  |                        | SMG     | SMG               | SMG               | TED               | GT         | RME          | GMG                      | TED        | TED        | TED        | RME        | GMG                      |
| Metala         |  |                        | 4000    | 57,000            | Child             | 2400              | 01         |              | Cinc                     | ii b       |            |            |            | 42,000                   |
| wetais         | Arsenic                                    | 640                    | 20      | 4,7               | -                 | 4.7               | 6.5        | 24           | 9                        | 9.4        | 6.5        | 3.6        | 26         | 43,000                   |
|                | Beryllium                                  | 010                    | 0.5     | 6.3               | -                 | < 0.2             | 1          | 0.7          | 1.9                      | <0.2       | <0.2       | <0.2       | 0.6        | 5.9                      |
|                | Boron                                      | 240000                 | 1.2     | 1.3               | -                 | <0.2              | 3.5        | 3.4          | 1.1                      | 0.4        | 0.6        | 0.8        | 2          | 6                        |
|                | Cadmium                                    | 190                    | 0.2     | <0.1              | -                 | <0.1              | 0.1        | <0.1         | 0.1                      | <0.1       | <0.1       | <0.1       | 0.1        | <0.1                     |
|                | Chromium (hexavalent)                      | 33                     | <1      | <1                | -                 | <1                | <1         | <1           | <1                       | <1         | <1         | <1         | <1         | <1                       |
|                | Chromium (Trivalent)                       | 0000                   | 160     | 2.3               |                   | 3.3               | 31         | - 28         | 410                      | 4 1        | 4.9        | 27         | - 18       | - 14                     |
|                | Copper                                     | 68000                  | 28      | 3.3               | -                 | 4.4               | 36         | 34           | 130                      | 3.7        | 3.2        | 2.9        | 18         | 5                        |
|                | Iron                                       | -                      | 52,000  | 3200              | -                 | 8400              | -          | -            | -                        | -          | -          | -          | -          | 5100                     |
|                | Lead                                       | 2300                   | 15      | 2.6               | -                 | 22                | 18         | 13           | 17                       | 34         | 4.4        | 3.1        | 23         | 1.4                      |
|                | Manganese                                  | -                      | 11,000  | 550               | -                 | 1/0               | -          | -            | -                        | -          | -          | -          | -          | 1500                     |
|                | Molybdenum                                 | 50                     | 0.7     | 0.8               |                   | 0.05              |            |              |                          |            |            | -0.05      | -0.05      | 0.9                      |
|                | Nickel                                     | 980                    | 14      | <1                | -                 | 3.1               | 33         | 30           | 12                       | 3.2        | 3.4        | 2.6        | 26         | 1.2                      |
|                | Selenium                                   | -                      | 4.5     | 0.7               | -                 | <0.5              | <0.5       | 0.6          | 4.1                      | <0.5       | <0.5       | <0.5       | <0.5       | 1.2                      |
|                | Tin  |                        | 2.8     | <1                | -                 | <1                | -          | -            | -                        | -          | -          | -          | -          | <1                       |
| Achastas       | ZINC<br>Ashestos Quantification Total      | 730000                 | 28      | 7.1               | -                 | 16                | 59         | 54           | 38                       | 32         | 20         | 13         | 120        | 4.1                      |
| Aspesios       | Asbestos Quantincation Total               |                        | 0       | 0                 | 0                 | -                 | -          | _            | 0                        | -          |            |            |            | 0                        |
| Inorganics     | Chloride                                   |                        | 64.5    | 29.9              | -                 | 28                |            | _            | -                        | _          |            |            | _          | 5.3                      |
| <b>J</b>       | Orthophosphate as P                        |                        | 1.6     | <0.1              | -                 | 0.13              | -          | -            | -                        | -          | -          | -          | -          | <0.1                     |
| PAH            | PAH 16 Total                               |                        | 0.74    | <0.1              | -                 | <0.1              | <0.1       | <0.1         | <0.1                     | <0.1       | <0.1       | <0.1       | <0.1       | 0.13                     |
|                | Naphthalene                                | 1900                   | < 0.03  | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03                   |
|                | Acenaphthene                               | 84000**                | < 0.03  | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03                   |
|                | Fluoranthene                               | 23000                  | 0.17    | <0.03             |                   | <0.03             | <0.03      | <0.03        | 0.04                     | <0.03      | <0.03      | <0.03      | <0.03      | 0.05                     |
|                | Phenanthrene                               | 22000                  | 0.1     | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | 0.04                     | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.03                     |
|                | Fluorene                                   | 63000**                | < 0.03  | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03                   |
|                | Pyrene                                     | 54000                  | 0.11    | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | 0.04                     |
|                | Benzo(a)anthracene                         | 170                    | 0.07    | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03                   |
|                | Benzo(k)fluoranthene                       | 44                     | 0.08    | < 0.03            | -                 | <0.03             | <0.03      | <0.03        | < 0.03                   | <0.03      | < 0.03     | <0.03      | <0.03      | < 0.03                   |
|                | Benzo(a)pyrene                             | 77                     | 0.00    | < 0.03            | _                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03                   |
|                | Dibenz(a,h)anthracene                      | 3.5                    | < 0.03  | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | <0.03      | < 0.03     | <0.03                    |
|                | Benzo(g,h,i)perylene                       | 3900                   | 0.03    | <0.03             | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | <0.03      | <0.03      | < 0.03     | <0.03                    |
| TRULOWO        | Indeno(1,2,3-c,d)pyrene                    | 500                    | 0.03    | < 0.03            | -                 | < 0.03            | < 0.03     | < 0.03       | < 0.03                   | < 0.03     | < 0.03     | < 0.03     | < 0.03     | < 0.03                   |
| IPH CWG        | >C5-EC6 Aliphatics                         | 7800**                 | <0.01   | < 0.01            | -                 | <0.01             | <0.01      | <0.01        | < 0.01                   | <0.01      | <0.01      | <0.01      | <0.01      | < 0.01                   |
|                | >C8-C10 Aliphatics                         | 2000**                 | <0.01   | <0.01             |                   | <0.01             | <0.01      | <0.01        | <0.01                    | <0.01      | <0.01      | <0.01      | <0.01      | <0.01                    |
|                | >C10-C12 Aliphatics                        | 9700**                 | <1.5    | <1.5              | -                 | 1.94              | <1.5       | <1.5         | 2.63                     | 2.14       | 2.3        | 2.61       | 1.67       | <1.5                     |
|                | >C12-C16 Aliphatics                        | 59000**                | <1.2    | <1.2              | -                 | <1.2              | <1.2       | <1.2         | 2.69                     | 2.55       | 2.64       | 2.97       | 3.44       | -                        |
|                | >C16-C21 Aliphatics                        |                        | <1.5    | <1.5              | -                 | <1.5              | <1.5       | <1.5         | 2.71                     | 2.2        | 2.37       | 2.83       | 3.02       | <1.5                     |
|                | >C21-C35 Aliphatics                        |                        | <3.4    | <3.4              | -                 | <3.4              | <3.4       | <3.4         | <3.4                     | <3.4       | <3.4       | <3.4       | <3.4       | <3.4                     |
|                | >EC5-EC7 Aromatics                         | 26000**                | <0.01   | <0.01             | -                 | <0.01             | <0.01      | <0.01        | <0.01                    | <0.01      | <0.01      | <0.01      | <0.01      | <0.01                    |
|                | >EC7-EC8 Aromatics                         | 56000**                | < 0.01  | < 0.01            | -                 | < 0.01            | < 0.01     | < 0.01       | < 0.01                   | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01                   |
|                | >EC8-EC10 Aromatics                        | 3500**                 | < 0.01  | < 0.01            | -                 | < 0.01            | < 0.01     | < 0.01       | < 0.01                   | < 0.01     | < 0.01     | < 0.01     | < 0.01     | < 0.01                   |
|                | >EC10-EC12 Aromatics                       | 16000**                | <0.9    | <0.9              | -                 | <0.9              | <0.9       | <0.9         | 1.36                     | 1.22       | <0.9       | <0.9       | <0.9       | <0.9                     |
|                | >EC12-EC16 Aromatics                       | 36000**                | < 0.5   | < 0.5             | -                 | < 0.5             | < 0.5      | < 0.5        | 0.58                     | < 0.5      | < 0.5      | < 0.5      | < 0.5      | < 0.5                    |
|                | >EC16-EC21 Aromatics                       | 28000                  | 4./     | <0.6              | -                 | < 0.6             | <0.6       | <0.6         | 2.04                     | 1./3       | 1.22       | 1.26       | <0.6       | 1.58                     |
|                | >EC35 - EC40 Aromatics                     | 20000                  |         | <1.4              |                   | <1.4              | <1.4       | <1.4<br><1.4 | <1.4                     | <1.4       | <1.4       | <1.4       | <1.4       | <1.4                     |
|                | >EC40-EC44 Aromatics                       |                        | -       |                   | -                 | - 1               | - 1        | - 1T         | - 1                      |            |            | - 1        |            |                          |
|                | Total >EC5 - EC40 Aromatics                |                        | 50      | <10               | -                 | <10               | <10        | <10          | <10                      | <10        | <10        | <10        | <10        | -                        |
|                | Total Aliphatics + Aromatics (>C5 - C40)   |                        | 50      | 18.08             | -                 | 19.55             | <10        | <10          | 22.53                    | 21.85      | 21.8       | 23.56      | 11.21      | -                        |
| BTEX and       | Benzene                                    |                        | 0.006   | < 0.002           | -                 | < 0.002           | -          | -            | < 0.002                  | < 0.002    | _          | < 0.002    | -          | -                        |
| MTBE           |  |                        | < 0.005 | < 0.005           | -                 | < 0.005           | -          | -            | < 0.005                  | < 0.005    | -          | < 0.005    | -          | -                        |
|                | Xvlene (m & n)                             |                        | <0.002  | < 0.002           |                   | <0.002            | -          | -            | <0.002                   | <0.002     | -          | <0.002     | -          | -                        |
|                | Xylene (o)                                 |                        | < 0.002 | < 0.002           |                   | < 0.002           | _          | _            | < 0.002                  | < 0.002    |            | < 0.002    | _          |                          |
|                | Xylene Total                               |                        | =       | -                 | -                 | =                 | -          | -            | =                        | =          | -          | =          | -          | -                        |
|                | MTBE                                       |                        | < 0.005 | < 0.005           | -                 | < 0.005           | -          | -            | < 0.005                  | < 0.005    | -          | < 0.005    | -          | -                        |



|          |                             |                    | F-TP117    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH125    |
|----------|-----------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                             | Redcar Remediation | 2.5        | 3.5        | 4.5        | 5.5        | 14.8       | 20         | 3.8        | 5.1        | 7.8        | 10.8       | 18.8       | 3.8        |
| Group    | Compound                    | Criteria - Soil    | 27/09/2022 | 02/08/2022 | 02/08/2022 | 02/08/2022 | 03/08/2022 | 03/08/2022 | 01/08/2022 | 01/08/2022 | 01/08/2022 | 02/08/2022 | 02/08/2022 | 04/08/2022 |
| Croup    |                             |                    |            |            |            |            |            |            |            |            |            |            |            |            |
|          |                             |                    | SMG        | SMG        | SMG        | TFD        | GT         | RMF        | GMG        | TFD        | TFD        | TFD        | RMF        | GMG        |
| VOC      | Styrene                     |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | cis-1,3-dichloropropene     |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | trans-1,3-dichloropropene   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,1,2-tetrachloroethane   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,1-trichloroethane       |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,2-trichloroethane       |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloroethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloroethene          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloropropene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,3-tricnioropropane      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trimetryidenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromo-3-chioropropane |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromoethane           |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3,5-trimetryidenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromobenzene                |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromochloromethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Promodiableromethane        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromoform                   |                    | -          | -          |            |            | -          |            |            | -          | -          |            | _          | -          |
|          | Carbon tetrachloride        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorodibromomethane        |                    | -          | -          |            |            | -          |            |            | -          | -          |            | _          | -          |
|          | Chloroform                  |                    |            |            |            |            |            |            |            |            |            |            |            |            |
|          | cis-1 2-dichloroethene      |                    |            |            |            |            |            |            |            |            |            |            |            |            |
|          | Dibromomethane              |                    | _          |            |            |            | -          | _          | _          | _          | -          |            | -          |            |
|          | Isopropylbenzene            |                    | _          | _          | _          | _          | -          | _          | _          | _          | _          | _          | -          | _          |
|          | n-butylbenzene              |                    | _          | _          | -          | -          | -          | -          | -          | _          | -          | _          | -          | _          |
|          | n-propylbenzene             |                    | _          | _          | -          | -          | -          | -          | -          | _          | -          | _          | -          | _          |
|          | p-isopropyltoluene          |                    | -          | _          | _          | _          | -          | _          | _          | _          | -          | _          | -          | _          |
|          | sec-butylbenzene            |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Trichloroethene             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | tert-butvlbenzene           |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Tetrachloroethene           |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | trans-1.2-dichloroethene    |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Vinvl chloride              |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | tert-Amyl methyl ether      |                    | < 0.005    | < 0.005    | -          | < 0.005    | -          | -          | < 0.005    | < 0.005    | -          | < 0.005    | -          | -          |
| VOC/SVOC | 1,2,3-trichlorobenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trichlorobenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichlorobenzene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichlorobenzene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,4-dichlorobenzene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorobenzene               |                    | -          | -          | _          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobutadiene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



|          |                              |                           | F-TP117    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH125    |
|----------|------------------------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                              | <b>Redcar Remediation</b> | 2.5        | 3.5        | 4.5        | 5.5        | 14.8       | 20         | 3.8        | 5.1        | 7.8        | 10.8       | 18.8       | 3.8        |
| Group    | Compound                     | Criteria - Soil           | 27/09/2022 | 02/08/2022 | 02/08/2022 | 02/08/2022 | 03/08/2022 | 03/08/2022 | 01/08/2022 | 01/08/2022 | 01/08/2022 | 02/08/2022 | 02/08/2022 | 04/08/2022 |
|          |                              |                           | SMG        | SMG        | SMG        | TFD        | GT         | RMF        | GMG        | TFD        | TFD        | TFD        | RMF        | GMG        |
| SVOC     | 1.4-dinitrobenzene           |                           |            |            |            |            |            |            |            |            |            |            |            |            |
| 3400     | Benzyl alcohol               |                           |            |            |            |            |            |            |            |            |            |            |            |            |
|          | 4-bromonhenyl nhenyl ether   |                           | -          |            |            |            |            | -          |            | -          | _          | -          | -          |            |
|          | 4-nitroaniline               |                           | _          | _          | -          | -          | _          | -          | -          | _          | _          | -          | _          | _          |
|          | 4-nitrophenol                |                           | _          | _          | _          | -          |            | -          | _          | -          | _          | _          | _          |            |
|          | 1 2-Dinitrobenzene           |                           | _          | _          | _          | _          | _          | _          | _          | _          | _          | _          | _          | _          |
|          | 1.3-Dinitrobenzene           |                           | -          | _          | _          | _          | _          | -          | _          | -          | _          | -          | -          | _          |
|          | 2 3 4 6-tetrachlorophenol    |                           | -          | _          | _          | _          | _          | -          | _          | -          | _          | -          | -          | _          |
|          | 2.3.5.6-Tetrachlorophenol    |                           | -          | _          | _          | _          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2.4.5-trichlorophenol        |                           | -          | _          | _          | _          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2.4.6-trichlorophenol        |                           | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
|          | 2,4-dichlorophenol           |                           | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
|          | 2,4-dimethylphenol           |                           | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
|          | 2,4-dinitrotoluene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,6-dichlorophenol           |                           | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
|          | 2,6-Dimethylphenol           |                           | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
|          | 2,6-dinitrotoluene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chloronaphthalene          |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorophenol               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylnaphthalene          |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylphenol               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-nitroaniline               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 3-nitroaniline               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4,6-Dinitro-2-methylphenol   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorophenyl phenyl ether  |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-methylphenol               |                           | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
|          | Azobenzene                   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroethoxy) methane  |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroisopropyl) ether |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-ethylhexyl) phthalate  |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Butyl benzyl phthalate       |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Carbazole                    |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dibenzoturan                 |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dietnyiphthalate             |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Di-n-butyi phthalate         |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Pentachlorocyclopentadiene   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Pentachiorophenoi            |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



|                   |   |                                       | F-TP117    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH120    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH124    | F-BH125    |
|-------------------|---|---------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical<br>Group | Compound                                      | Redcar Remediation<br>Criteria - Soil | 2.5        | 3.5        | 4.5        | 5.5        | 14.8       | 20         | 3.8        | 5.1        | 7.8        | 10.8       | 18.8       | 3.8        |
|                   |   |                                       | 27/09/2022 | 02/08/2022 | 02/08/2022 | 02/08/2022 | 03/08/2022 | 03/08/2022 | 01/08/2022 | 01/08/2022 | 01/08/2022 | 02/08/2022 | 02/08/2022 | 04/08/2022 |
|                   |   |                                       | SMG        | SMG        | SMG        | TFD        | GT         | RMF        | GMG        | TFD        | TFD        | TFD        | RMF        | GMG        |
| РСВ               | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB 189) |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          |            |
|                   | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 101                                       |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 118                                       |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 138                                       |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 153                                       |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 180                                       |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 28 + PCB 31                               |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | PCB 52  |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Total PCB 7 Congeners                         |                                       | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| Phenolics         | 3-&4-methylphenol                             |                                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|                   | Phenol  |                                       | <0.3       | < 0.3      | -          | <0.3       | <0.3       | <0.3       | < 0.01     | <0.3       | <0.3       | <0.3       | <0.3       | <0.3       |
| SVOC TIC          | Aniline                                       |                                       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| NA                | 4-chloro-2-methylphenol                       |                                       | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          |
| Notes             |   |                                       |            |            |            |            |            |            |            |            |            |            |            |            |

0103

Exceeds - Adopted Scre



| Appendix H : C | parison of Measured Concentrations of CoC in Soil with GAC (mc |                 |                   |                   |                   |                    |                    |                   |                   |                   |                    |         |                    |              |  |  |
|----------------|--|-----------------|-------------------|-------------------|-------------------|--------------------|--------------------|-------------------|-------------------|-------------------|--------------------|---------|--------------------|--------------|--|--|
|                |  |                 |                   |                   |                   |                    |                    |                   |                   |                   |                    |         | Blast Furnace Stoc |              |  |  |
|                |  |                 | F-BH125           | F-BH125           | F-BH125           | F-BH125            | F-BH125            | F-BH128           | F-BH128           | F-BH128           | F-BH128            | F-TP112 | F-TP112            | F-TP112      |  |  |
| Group          | Compound   | Criteria - Soil | 4.8<br>04/08/2022 | 5.3<br>04/08/2022 | 6.3<br>04/08/2022 | 11.8<br>05/08/2022 | 14.8<br>05/08/2022 | 3.9<br>28/07/2022 | 4.9<br>28/07/2022 | 8.5               | 13.5<br>29/07/2022 | 0.3     | 1<br>26/09/2022    | 2 26/09/2022 |  |  |
| Oroup          |  | ontena - oon    | GMG               |                   | TED               | TED                | GT                 | GMG               | TED               | TED               |                    | GMG     | GMG                | GMG          |  |  |
| Motolo         | Aluminium  |                 | 5000              | 1700              | 0100              |                    | 17,000             | GING              | ΠĐ                |                   |                    | 1000    | GINIG              | 9400         |  |  |
| Metais         | Arsenic  | 640             | 19                | 8.2               | 6.8               | 20                 | 9                  | 7.3               | 6.5               | 6.2               | - 18               | 3.6     | -                  | 2.7          |  |  |
|                | Beryllium  | 010             | 0.3               | 0.4               | 0.5               | 0.5                | 1.3                | 0.6               | <0.2              | <0.2              | 0.8                | <0.2    | -                  | 0.9          |  |  |
|                | Boron  | 240000          | 1.2               | 0.9               | 2.7               | 5.5                | 3.5                | 0.8               | <0.2              | 3.4               | 4.5                | 0.7     | -                  | 1.5          |  |  |
|                | Cadmium  | 190             | 0.2               | <0.1              | 0.2               | <0.1               | <0.1               | 0.2               | <0.1              | <0.1              | <0.1               | <0.1    | -                  | 0.3          |  |  |
|                | Chromium (hexavalent)  | 33              | <1                | <1                | <1                | <1                 | <1                 | <1                | <1                | <1                | <1                 | <1      | -                  | <1           |  |  |
|                | Chromium<br>Chromium (Trivelent)                               | 8600            | -                 | - 0.7             | -                 | -                  | -                  | - 970             | -                 | -                 | - 41               | - 10    | -                  | -            |  |  |
|                | Copper   | 68000           | 400               | 9.7               | 20<br>12          | 12                 | 27                 | 30                | 3.0               | <u>4.4</u><br>5.4 | 41                 | 82      | -                  | 41           |  |  |
|                | Iron   | -               | 300.000           | 10.000            | 33.000            | -                  | 42.000             |                   | -                 |                   | -                  | 44.000  | _                  | 100.000      |  |  |
|                | Lead   | 2300            | 14                | 20                | 16                | 12                 | 17                 | 12                | 20                | 4.4               | 15                 | 7.3     | -                  | 18           |  |  |
|                | Manganese  | -               | 3100              | 200               | 180               | -                  | 560                | -                 | -                 | -                 | -                  | 600     | -                  | 29,000       |  |  |
|                | Mercury  | 58*             | <0.05             | < 0.05            | < 0.05            | <0.05              | < 0.05             | <0.05             | < 0.05            | <0.05             | < 0.05             | < 0.05  | -                  | <0.05        |  |  |
|                | Molybdenum   | 000             | 1                 | 0.5               | 1.2               | -                  | 1.1                | -                 | -                 | -                 | -                  | 1.6     | -                  | 6.2          |  |  |
|                | NICKEI   | 980             | 25                | 4.1               | 16                | 19                 | 43                 | 10                | 2.4               | 4.4               | -0.5               | 4.6     | -                  | 5.8          |  |  |
|                | Tin  | -               | 18                | <1                | <1                |                    | <1                 |                   | -0.0              | -0.0              |                    | <1      | _                  | 7 1          |  |  |
|                | Zinc   | 730000          | 46                | 18                | 63                | 46                 | 61                 | 48                | 16                | 22                | 63                 | 85      |                    | 73           |  |  |
| Asbestos       | Asbestos Quantification Total                                  |                 | -                 | -                 |                   |                    |                    |                   |                   |                   |                    | -       | -                  |              |  |  |
|                | Asbestos fibres  |                 | 0                 | -                 | -                 | -                  | -                  | 0                 | -                 | -                 | -                  | 0       | 0                  | 0            |  |  |
| Inorganics     | Chloride   |                 | 36.9              | 3.8               | 50.9              | -                  | 266                | -                 | -                 | -                 | -                  | 51.9    | -                  | 41.6         |  |  |
| DALL           | Orthophosphate as P  |                 | 5.8               | 0.32              | 7                 | -                  | 0.16               | -                 | -                 | -                 | -                  | <0.1    | -                  | <0.1         |  |  |
| РАП            | Nanhthalene  | 1000            | <0.1              | <0.1              | <0.1              | <0.1               | <0.1               | <0.1              | <0.1              | <0.1              | <0.1               | 0.3     | -                  | 0.93         |  |  |
|                | Acenaphthene   | 84000**         | <0.04             | <0.03             | < 0.03            | <0.03              | <0.03              | < 0.03            | < 0.03            | <0.03             | <0.03              | <0.04   | _                  | < 0.03       |  |  |
|                | Acenaphthylene   | 83000**         | -                 | -                 | -                 | -                  | -                  | -                 | -                 | -                 | -                  | -       | -                  | -            |  |  |
|                | Fluoranthene   | 23000           | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | <0.03             | <0.03             | < 0.03            | 0.04               | 0.06    | -                  | 0.13         |  |  |
|                | Phenanthrene   | 22000           | 0.04              | <0.03             | < 0.03            | < 0.03             | < 0.03             | <0.03             | < 0.03            | < 0.03            | 0.03               | 0.08    | -                  | 0.05         |  |  |
|                | Fluorene   | 63000**         | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03  | -                  | < 0.03       |  |  |
|                | Pyrene<br>Denze (a) anthronome                                 | 54000           | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | 0.05    | -                  | 0.12         |  |  |
|                | Benzo(b)fluoranthene   | 170             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | < 0.03            | < 0.03            | < 0.03            | <0.03              | <0.03   | -                  | 0.07         |  |  |
|                | Benzo(k)fluoranthene   | 1200            | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03  |                    | 0.08         |  |  |
|                | Benzo(a)pyrene   | 77              | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03  | -                  | 0.11         |  |  |
|                | Dibenz(a,h)anthracene  | 3.5             | < 0.03            | <0.03             | <0.03             | <0.03              | <0.03              | <0.03             | <0.03             | < 0.03            | < 0.03             | < 0.03  | -                  | <0.03        |  |  |
|                | Benzo(g,h,i)perylene   | 3900            | <0.03             | < 0.03            | < 0.03            | < 0.03             | < 0.03             | <0.03             | < 0.03            | < 0.03            | < 0.03             | < 0.03  | -                  | 0.08         |  |  |
|                | Indeno(1,2,3-c,d)pyrene  | 500             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03             | < 0.03            | < 0.03            | < 0.03            | < 0.03             | < 0.03  | -                  | 0.05         |  |  |
| IPH CWG        | >C5-EC6 Aliphatics   | 7000**          | < 0.01            | < 0.01            | < 0.01            | < 0.01             | < 0.01             | < 0.01            | < 0.01            | < 0.01            | <0.01              | < 0.01  | -                  | < 0.01       |  |  |
|                | >C8-C10 Aliphatics   | 2000**          | <0.01             | <0.01             | < 0.01            | < 0.01             | < 0.01             | <0.01             | < 0.01            | <0.01             | <0.01              | <0.01   | -                  | < 0.01       |  |  |
|                | >C10-C12 Aliphatics  | 9700**          | <1.5              | 2.01              | <1.5              | <1.5               | <1.5               | 1.86              | 2.41              | 3.77              | 2.62               | <1.5    | -                  | <1.5         |  |  |
|                | >C12-C16 Aliphatics  | 59000**         | -                 | -                 | -                 | -                  | <1.2               | 2.07              | 3.01              | 5.4               | 3.32               | <1.2    | -                  | <1.2         |  |  |
|                | >C16-C21 Aliphatics  |                 | <1.5              | 3.36              | <1.5              | <1.5               | <1.5               | <1.5              | 1.99              | 3.79              | 2.28               | <1.5    | -                  | 1.8          |  |  |
|                | >C21-C35 Aliphatics  |                 | <3.4              | <3.4              | <3.4              | <3.4               | <3.4               | <3.4              | <3.4              | <3.4              | <3.4               | <3.4    | -                  | 12           |  |  |
|                | 10tal >C5 - C40 Aliphatics                                     | 26000**         | -                 | -                 | -                 | -                  | 13.48              | 12.72             | 15.82             | 21.62             | 17.07              | <10     | -                  |              |  |  |
|                | >EC7-EC8 Aromatics   | 56000**         | <0.01             | < 0.01            | < 0.01            | < 0.01             | < 0.01             | <0.01             | < 0.01            | < 0.01            | <0.01              | <0.01   | -                  | < 0.01       |  |  |
|                | >EC8-EC10 Aromatics  | 3500**          | < 0.01            | < 0.01            | < 0.01            | < 0.01             | < 0.01             | < 0.01            | < 0.01            | < 0.01            | < 0.01             | < 0.01  |                    | < 0.01       |  |  |
|                | >EC10-EC12 Aromatics   | 16000**         | <0.9              | <0.9              | <0.9              | < 0.9              | < 0.9              | <0.9              | <0.9              | <0.9              | <0.9               | <0.9    | -                  | < 0.9        |  |  |
|                | >EC12-EC16 Aromatics   | 36000**         | <0.5              | <0.5              | <0.5              | <0.5               | <0.5               | <0.5              | < 0.5             | <0.5              | < 0.5              | < 0.5   | -                  | <0.5         |  |  |
|                | >EC16-EC21 Aromatics   | 28000           | 1.33              | 1.07              | 1.57              | 1.1                | 1.16               | 2.33              | 2.7               | 18.29             | 16.43              | <0.6    | -                  | <0.6         |  |  |
|                | >EC21-EC35 Aromatics   | 28000           | <1.4              | <1.4              | <1.4              | <1.4               | <1.4               | <1.4              | <1.4              | <1.4              | <1.4               | <1.4    | -                  | <1.4         |  |  |
|                | >EC40_EC44 Aromatics   |                 | < 1.4             | < 1.4             | <   .4            | <  .4              | < [.4]             | < 1.4             | <1.4              | <1.4              | < 1.4              | -       | -                  | -            |  |  |
|                | Total >FC5 - FC40 Aromatics                                    |                 | -                 | -                 | _                 | -                  | - <10              | <10               | <10               | 23.66             | 21.91              | <10     | _                  | - <10        |  |  |
|                | Total Aliphatics + Aromatics (>C5 - C40)                       |                 | -                 | -                 | -                 | -                  | 19.8               | 19.51             | 23.73             | 45.28             | 38.98              | <10     | -                  | 16           |  |  |
| BTEX and       | Benzene  |                 | <0.01 - 0.008     | < 0.002           | -                 | < 0.002            | -                  | < 0.002           | -                 | -                 | -                  | <0.002  | -                  | < 0.002      |  |  |
| МТВЕ           | Toluene  |                 | <0.01 - 0.01      | < 0.005           | -                 | <0.005             | -                  | <0.005            | -                 | -                 | -                  | <0.005  | -                  | <0.005       |  |  |
|                | Ethylbenzene   |                 | <0.01 - 0.006     | < 0.002           | -                 | <0.002             | -                  | < 0.002           | -                 | -                 | -                  | <0.002  | -                  | <0.002       |  |  |
|                | Xylene (m & p)   |                 | <0.01             | -                 | -                 | -                  | -                  | -                 | -                 | -                 | -                  | -       | -                  | -            |  |  |
|                | Xylene Total   |                 |                   | ~0.002            | -                 | ~0.002             | -                  | ~0.002            | -                 | -                 |                    | ~0.002  | -                  | ~0.002       |  |  |
|                | MTBE   |                 | < 0.005           | < 0.005           | _                 | < 0.005            | -                  | < 0.005           | -                 | -                 | -                  | < 0.005 | -                  | < 0.005      |  |  |
|                |  |                 |                   | -                 |                   |                    |                    |                   | I                 |                   |                    |         |                    |              |  |  |


|          |                             |                    | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH128    | F-BH128    | F-BH128    | F-BH128    | F-TP112    | F-TP112    | F-TP112    |
|----------|-----------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                             | Redcar Remediation | 4.8        | 5.3        | 6.3        | 11.8       | 14.8       | 3.9        | 4.9        | 8.5        | 13.5       | 0.3        | 1          | 2          |
| Group    | Compound                    | Criteria - Soil    | 04/08/2022 | 04/08/2022 | 04/08/2022 | 05/08/2022 | 05/08/2022 | 28/07/2022 | 28/07/2022 | 28/07/2022 | 29/07/2022 | 26/09/2022 | 26/09/2022 | 26/09/2022 |
|          |                             |                    | GMG        | TED        | TED        | TED        | GT         | GMG        | TED        | TED        | TED        | GMG        | GMG        | GMG        |
|          |                             |                    |            |            |            |            |            |            |            |            |            |            |            |            |
| voc      | Styrene                     |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | cis-1,3-dichloropropene     |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | trans-1,3-dichloropropene   |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,1,2-tetrachloroethane   |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,1-trichloroethane       |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,2-UICHIOFOEthane        |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1 1-dichloroethene          |                    | <0.01      | _          |            |            |            |            | -          | -          |            | -          | _          |            |
|          | 1 1-dichloropropene         |                    | <0.01      |            |            |            |            |            |            |            |            |            |            |            |
|          | 1 2 3-trichloropropane      |                    | <0.01      | -          | _          | _          | -          |            | _          | _          | -          | _          | -          | -          |
|          | 1.2.4-trimethylbenzene      |                    | < 0.01     | -          | _          | _          | -          | _          | _          | -          | _          | -          | _          | -          |
|          | 1.2-dibromo-3-chloropropane |                    | < 0.01     | -          | _          | _          | _          | -          | _          | -          | _          | -          | -          | _          |
|          | 1,2-dibromoethane           |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloroethane          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloropropane         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3,5-trimethylbenzene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichloropropane         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,2-dichloropropane         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorotoluene             |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorotoluene             |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromobenzene                |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromochloromethane          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromodichloromethane        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromoform                   |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Carbon tetrachloride        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorodibromomethane        |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chloroform                  |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | cis-1,2-dichloroethene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dibromomethane              |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Isopropylbenzene            |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Trichloroethene             |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | tert hut/benzene            |                    | <0.01      | -          | -          | -          | -          | -          | -          |            | -          | -          | -          | -          |
|          | Tetrachloroothono           |                    | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | _          |
|          | trans_1 2-dichloroethene    |                    | <0.01      | _          |            |            |            |            | -          | -          |            | -          | _          |            |
|          | Vinvl chloride              |                    | <0.01      |            |            |            |            |            |            |            |            |            |            |            |
|          | tert-Amyl methyl ether      |                    | <0.005     | <0.005     |            | <0.005     |            | <0.005     |            |            |            | <0.005     | -          | <0.005     |
| VOC/SVOC | 1 2 3-trichlorobenzene      |                    | <0.01      | -0.000     |            | -0.000     |            | -0.000     |            |            |            | -0.000     |            | -0.000     |
|          | 1.2.4-trichlorobenzene      |                    | <0.01      | _          |            | _          | _          |            |            |            |            |            | _          | _          |
|          | 1.2-dichlorobenzene         |                    | < 0.01     | -          | -          | -          | -          | _          | _          | _          | -          | _          | -          | -          |
|          | 1 3-dichlorobenzene         |                    | < 0.01     | -          | -          | -          | -          | _          | _          | -          | -          | _          | -          | -          |
|          | 1.4-dichlorobenzene         |                    | < 0.01     | -          | _          | _          | -          | -          | -          | -          | _          | _          | _          | _          |
|          | Chlorobenzene               |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobutadiene         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



|          |                              |                           | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH128    | F-BH128    | F-BH128    | F-BH128    | F-TP112    | F-TP112    | F-TP112    |
|----------|------------------------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical | 0                            | <b>Redcar Remediation</b> | 4.8        | 5.3        | 6.3        | 11.8       | 14.8       | 3.9        | 4.9        | 8.5        | 13.5       | 0.3        | 1          | 2          |
| Group    | Compound                     | Criteria - Soil           | 04/08/2022 | 04/08/2022 | 04/08/2022 | 05/08/2022 | 05/08/2022 | 28/07/2022 | 28/07/2022 | 28/07/2022 | 29/07/2022 | 26/09/2022 | 26/09/2022 | 26/09/2022 |
|          |                              |                           | GMG        | TED        | TED        | TED        | ст         | GMG        | TED        | TED        | TED        | GMG        | GMG        | GMG        |
|          |                              |                           | GING       | iii b      | IID        |            | 61         | GIMG       | iii b      |            |            | GING       | GIMG       | GIMG       |
| SVOC     | 1,4-dinitrobenzene           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Benzyl alcohol               |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-bromophenyl phenyl ether   |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-nitroaniline               |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-nitrophenol                |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-Dinitrobenzene           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-Dinitrobenzene           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,3,4,6-tetrachlorophenol    |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,3,5,6-Tetrachlorophenol    |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4,5-trichlorophenol        |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4,6-trichlorophenol        |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4-dichlorophenol           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4-dimethylphenol           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4-dinitrotoluene           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,6-dichlorophenol           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,6-Dimethylphenol           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,6-dinitrotoluene           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chloronaphthalene          |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorophenol               |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylnaphthalene          |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylphenol               |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-nitroaniline               |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 3-nitroaniline               |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4,6-Dinitro-2-methylphenol   |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorophenyl phenyl ether  |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-methylphenol               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Azobenzene                   |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroethoxy) methane  |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroisopropyl) ether |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-ethylhexyl) phthalate  |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Butyl benzyl phthalate       |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Carbazole                    |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dibenzofuran                 |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Diethylphthalate             |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dimethyl phthalate           |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Di-n-butyl phthalate         |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Di-n-octyl phthalate         |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Diphenylamine                |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobenzene            |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorocyclopentadiene    |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Pentachlorophenol            |                           | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



|           |   |                    | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH125    | F-BH128    | F-BH128    | F-BH128    | F-BH128    | F-TP112    | F-TP112    | F-TP112    |
|-----------|---|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical  | 0 annual d                                    | Redcar Remediation | 4.8        | 5.3        | 6.3        | 11.8       | 14.8       | 3.9        | 4.9        | 8.5        | 13.5       | 0.3        | 1          | 2          |
| Group     | Compound                                      | Criteria - Soil    | 04/08/2022 | 04/08/2022 | 04/08/2022 | 05/08/2022 | 05/08/2022 | 28/07/2022 | 28/07/2022 | 28/07/2022 | 29/07/2022 | 26/09/2022 | 26/09/2022 | 26/09/2022 |
|           |   |                    | GMG        | TFD        | TFD        | TFD        | GT         | GMG        | TFD        | TFD        | TFD        | GMG        | GMG        | GMG        |
| РСВ       | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB 189) |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 101                                       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 118                                       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 138                                       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 153                                       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 180                                       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 28 + PCB 31                               |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 52  |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Total PCB 7 Congeners                         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| Phenolics | 3-&4-methylphenol                             |                    | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Phenol  |                    | <0.1       | <0.3       | <0.3       | < 0.3      | < 0.3      | <0.3       | <0.3       | <0.3       | <0.3       | 0.5        | -          | <0.3       |
| SVOC TIC  | Aniline                                       |                    | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| NA        | 4-chloro-2-methylphenol                       |                    | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| Notes     |   |                    |            |            |            |            |            |            |            |            |            |            |            |            |

0103

Exceeds - Adopted Scre



|            | Comparison of Measured Concentrations of Co | oC in Soil with GAC (m | r          |             |            |            |            |            |            |             |             |            |            |            |
|------------|---|------------------------|------------|-------------|------------|------------|------------|------------|------------|-------------|-------------|------------|------------|------------|
|            |   |                        | khouse     |             |            |            |            |            |            |             |             |            |            |            |
|            |   |                        | F-TP112    | F-TP113     | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP114    | F-TP114     | F-TP114     | F-TP114    | F-TP114    | F-BH119    |
| Chemical   | Compound                                    | Redcar Remediation     | 3.7        | 0.2         | 0.5        | 2.5        | 3.3        | 4.5        | 0.3        | 1           | 3.3         | 4          | 4.3        | 2.9        |
| Group      |   | Criteria - Soil        | 26/09/2022 | 23/09/2022  | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 22/09/2022 | 22/09/2022  | 22/09/2022  | 22/09/2022 | 22/09/2022 | 09/08/2022 |
|            |   |                        | TFD        | GMG         | GMG        | GMG        | GMG        | TFD        | GMG        | SMG         | GMG         | GMG        | TFD        | GMG        |
| Metals     | Aluminium                                   |                        | 2200       | 10,000      | -          | 23,000     | 13,000     | -          | -          | 9900        | 10,000      | 4500       | 2700       | 8400       |
|            | Arsenic                                     | 640                    | 8.3        | 2.5         | -          | 16         | 39         | 9.9        | -          | 6.8         | 16          | 7          | 8.1        | 8.4        |
|            | Beryllium                                   | 0.40000                | 0.3        | 1.2         | -          | 2.9        | 1.9        | < 0.2      | -          | 0.8         | 1.6         | 0.5        | 0.3        | 0.5        |
|            | Boron                                       | 240000                 | 0.3        | 4./         | -          | 1.3        | 1.2        | 0.3        | -          | 1.5         | 1.2         | 0.9        | 0.5        | 1.2        |
|            | Chromium (beyavalent)                       | 33                     | <0.1       | <1          | -          | <1         | <1         | <1         | -          | <1          | <1          | <1         | <1         | <1         |
|            | Chromium                                    | 8600                   | -          | -           | _          | =          | -          | -          |            | -           | =           | =          | =          | =          |
|            | Chromium (Trivalent)                        |                        | 22         | 64          | -          | 150        | 97         | 3.8        | -          | 1300        | 540         | 310        | 63         | 720        |
|            | Copper                                      | 68000                  | 8          | 10          | -          | 79         | 160        | 6.7        | -          | 52          | 54          | 27         | 14         | 63         |
|            | Iron  | -                      | 10,000     | 8600        | -          | 37,000     | 73,000     | -          | -          | 83,000      | 55,000      | 42,000     | 24,000     | 96,000     |
|            | Lead  | 2300                   | 15         | 9.6         | -          | 130        | 3900       | 57         | -          | 31          | 130         | 61         | 47         | 26         |
|            | Manganese                                   | -<br>E0*               | 370        | 1700        | -          | 4200       | 2300       | -          | -          | 22,000      | 9300        | 5700       | 1800       | 27,000     |
|            | Molybdenum                                  | 50                     | <0.05      | 14          | -          | 24         | 3.3        | -0.05      | -          | 5.6         | <u> </u>    | 17         | 0.05       | 3.1        |
|            | Nickel                                      | 980                    | 6.1        | 3           | -          | 15         | 37         | 3.1        |            | 9.1         | 19          | 11         | 7.4        | 14         |
|            | Selenium                                    | -                      | <0.5       | 0.9         | -          | 2.1        | <0.5       | < 0.5      | -          | 7           | 2.5         | 1.9        | <0.5       | 5.9        |
|            | Tin   |                        | <1         | 1.2         | -          | 11         | 24         | -          | -          | 6.4         | 7           | 2.4        | 1.8        | 4.9        |
|            | Zinc  | 730000                 | 34         | 19          | -          | 270        | 1300       | 56         | -          | 59          | 140         | 61         | 51         | 54         |
| Asbestos   | Asbestos Quantification Total               |                        | -          | -           | -          | -          | -          | -          | -          | -           | -           | -          | -          | -          |
|            | Asbestos fibres                             |                        | -          | -           | 0          | 0          | 0          | -          | 0          | 0           | 0           | -          | -          | 0          |
| inorganics | Chioride<br>Orthophosphoto os P             |                        | 4.1        | <b>25.2</b> | -          | 50.1       | /8.3       | -          | -          | <u>54.9</u> | <b>50.4</b> | 0.15       | 33         | 70.1       |
| РАН        | PAH 16 Total                                |                        | <0.2       | 0.39        |            | 21         | 20         | <0.1       | -          | <0.1        | 29          | 0.13       | 0.15       | 0.25       |
|            | Naphthalene                                 | 1900                   | < 0.03     | < 0.03      | -          | 0.09       | 0.07       | < 0.03     | _          | < 0.03      | 0.03        | < 0.03     | <0.03      | < 0.03     |
|            | Acenaphthene                                | 84000**                | < 0.03     | < 0.03      | -          | < 0.03     | 0.06       | < 0.03     | -          | < 0.03      | < 0.03      | < 0.03     | < 0.03     | < 0.03     |
|            | Acenaphthylene                              | 83000**                | -          | -           | -          | -          | -          | -          | -          | -           | -           | -          | -          | -          |
|            | Fluoranthene                                | 23000                  | < 0.03     | 0.1         | -          | 4.6        | 5.1        | 0.03       | -          | < 0.03      | 0.47        | 0.13       | 0.1        | 0.15       |
|            | Phenanthrene                                | 22000                  | < 0.03     | 0.04        | -          | 1.3        | 2.2        | < 0.03     | -          | < 0.03      | 0.31        | 0.09       | 0.09       | 0.06       |
|            | Fluorene                                    | 63000**                | < 0.03     | < 0.03      | -          | 0.07       | 0.18       | < 0.03     | -          | < 0.03      | < 0.03      | < 0.03     | < 0.03     | < 0.03     |
|            | Pyrene<br>Benzo(a)anthracene                | 170                    | <0.03      | 0.1         | -          | 3.7        | 3.9        | <0.03      | -          | <0.03       | 0.39        | 0.11       | 0.09       | 0.11       |
|            | Benzo(b)fluoranthene                        | 44                     | <0.03      | 0.04        | _          | 2.2        | 1.7        | <0.03      | _          | <0.03       | 0.38        | 0.1        | 0.09       | 0.04       |
|            | Benzo(k)fluoranthene                        | 1200                   | < 0.03     | < 0.03      | -          | 1.1        | 0.74       | < 0.03     | -          | < 0.03      | 0.18        | 0.04       | 0.04       | < 0.03     |
|            | Benzo(a)pyrene                              | 77                     | < 0.03     | < 0.03      | -          | 1.8        | 1.2        | < 0.03     | -          | < 0.03      | 0.19        | 0.05       | 0.06       | 0.03       |
|            | Dibenz(a,h)anthracene                       | 3.5                    | < 0.03     | < 0.03      | -          | 0.25       | 0.15       | < 0.03     | -          | < 0.03      | 0.03        | <0.03      | <0.03      | <0.03      |
|            | Benzo(g,h,i)perylene                        | 3900                   | < 0.03     | < 0.03      | -          | 0.83       | 0.49       | < 0.03     | -          | < 0.03      | 0.17        | 0.04       | 0.04       | < 0.03     |
|            | Indeno(1,2,3-c,d)pyrene                     | 500                    | < 0.03     | < 0.03      | -          | 0.88       | 0.56       | < 0.03     | -          | < 0.03      | 0.14        | 0.04       | 0.03       | < 0.03     |
| IPHCWG     | >C6 C8 Aliphatics                           | 7800**                 | <0.01      | < 0.01      | -          | < 0.01     | <0.01      | <0.01      | -          | < 0.01      | < 0.01      | < 0.01     | < 0.01     | < 0.01     |
|            | >C8-C10 Aliphatics                          | 2000**                 | <0.01      | <0.01       |            | <0.01      | <0.01      | <0.01      |            | <0.01       | <0.01       | <0.01      | <0.01      | <0.01      |
|            | >C10-C12 Aliphatics                         | 9700**                 | <1.5       | <1.5        | -          | <1.5       | <1.5       | <1.5       | _          | <1.5        | <1.5        | <1.5       | <1.5       | <1.5       |
|            | >C12-C16 Aliphatics                         | 59000**                | <1.2       | <1.2        | -          | <1.2       | <1.2       | <1.2       | -          | <1.2        | <1.2        | <1.2       | <1.2       | <1.2       |
|            | >C16-C21 Aliphatics                         |                        | <1.5       | <1.5        | -          | <1.5       | <1.5       | <1.5       | -          | <1.5        | <1.5        | <1.5       | <1.5       | <1.5       |
|            | >C21-C35 Aliphatics                         |                        | <3.4       | <3.4        | -          | <3.4       | <3.4       | <3.4       | -          | <3.4        | <3.4        | <3.4       | <3.4       | <3.4       |
|            | I OTAL >C5 - C4U Aliphatics                 | 26000**                | <10        | <10         | -          | <10        | <10        | <10        | -          | <10         | <10         | <10        | <10        | 11.56      |
|            | >FC7-FC8 Aromatics                          | 56000**                | <0.01      | <0.01       |            | <0.01      | <0.01      | <0.01      |            | <0.01       | <0.01       | <0.01      | <0.01      | <0.01      |
|            | >EC8-EC10 Aromatics                         | 3500**                 | <0.01      | <0.01       | _          | <0.01      | <0.01      | <0.01      |            | <0.01       | <0.01       | <0.01      | <0.01      | <0.01      |
|            | >EC10-EC12 Aromatics                        | 16000**                | < 0.9      | < 0.9       | -          | < 0.9      | <0.9       | < 0.9      | -          | < 0.9       | < 0.9       | < 0.9      | < 0.9      | < 0.9      |
|            | >EC12-EC16 Aromatics                        | 36000**                | <0.5       | <0.5        | -          | <0.5       | <0.5       | < 0.5      | -          | <0.5        | <0.5        | <0.5       | <0.5       | <0.5       |
|            | >EC16-EC21 Aromatics                        | 28000                  | <0.6       | <0.6        | -          | 7.9        | 22         | <0.6       | -          | <0.6        | <0.6        | <0.6       | <0.6       | 3.59       |
|            | >EC21-EC35 Aromatics                        | 28000                  | <1.4       | <1.4        | -          | 26         | 54         | <1.4       | -          | <1.4        | <1.4        | <1.4       | <1.4       | <1.4       |
|            | >EC35 - EC40 Aromatics                      |                        | -          | -           | -          | -          | -          | -          | -          | -           | -           | -          | -          | <1.4       |
|            | Total SEC5 - EC40 Aromatics                 |                        | - <10      |             | -          | - 2/       | - 76       |            | -          | -           | - 10        | 10         | 10         | 10         |
|            | Total Aliphatics + Aromatics (>C5 - C40)    |                        | <10        | <10         | -          | 34         | 76         | <10        | -          | <10         | <10         | <10        | <10        | 19.59      |
| BTEX and   | Benzene                                     |                        |            | 0.041       | -          | <0.002     | -          |            |            | 0.04        | - 10        | 0.041      | - 10       | -          |
| MTBE       | Toluene                                     |                        | -          | 0.012       | -          | < 0.085    | -          | -          |            | 0.011       | -           | 0.012      | -          | -          |
|            | Ethylbenzene                                |                        | -          | 0.041       | -          | < 0.002    | -          | -          | -          | 0.038       | -           | 0.124      | -          | -          |
|            | Xylene (m & p)                              |                        | -          | -           | -          | -          | -          | -          | -          | -           | -           | -          | -          | -          |
|            | Xylene (o)                                  |                        | -          | 0.01        | -          | <0.002     | -          | -          | -          | 0.011       | -           | 0.026      | -          | -          |
|            | Xyiene I otal                               |                        | -          | -           | -          | -          | -          | -          | -          | -           | -           | -          | -          | -          |
|            | INIDE                                       |                        | -          | <0.005      | -          | <0.005     | -          | -          | -          | <0.005      | -           | <0.005     | -          | -          |



|          |                             |                    | F-TP112    | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP114    | F-TP114    | F-TP114    | F-TP114    | F-TP114    | F-BH119    |
|----------|-----------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                             | Redcar Remediation | 3.7        | 0.2        | 0.5        | 2.5        | 3.3        | 4.5        | 0.3        | 1          | 3.3        | 4          | 4.3        | 2.9        |
| Group    | Compound                    | Criteria - Soil    | 26/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 09/08/2022 |
|          |                             |                    |            |            |            |            |            |            |            |            |            |            |            |            |
|          |                             |                    | TFD        | GMG        | GMG        | GMG        | GMG        | TFD        | GMG        | SMG        | GMG        | GMG        | TFD        | GMG        |
| VOC      | Styrene                     |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | cis-1,3-dichloropropene     |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | trans-1,3-dichloropropene   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,1,2-tetrachloroethane   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,1-trichloroethane       |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1,2-trichloroethane       |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloroethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloroethene          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,1-dichloropropene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,3-trichloropropane      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trimethylbenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromo-3-chloropropane |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromoethane           |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloroethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3,5-trimethylbenzene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,2-dichloropropane         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorotoluene             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorotoluene             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromobenzene                |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromochloromethane          |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromodichloromethane        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bromotorm                   |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Carbon tetrachloride        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorodibromomethane        |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chloroform                  |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | cis-1,2-dichloroethene      |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dibromomethane              |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Triphleroothono             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | tert hut/benzene            |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Totrophoroothono            |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | trans 1.2 dichloroothono    |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Vinul ablarida              |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | tert-Amyl methyl ether      |                    |            | <0.005     |            | <0.005     |            | -          | -          | <0.005     |            | -          | -          |            |
| VOC/SVOC | 1.2.3-trichlorobenzene      |                    | -          | ~0.005     | -          | ~0.005     | -          | -          | -          | ~0.005     | -          | ~0.005     | -          | -          |
| 100/3100 | 1.2.4_trichlorobenzene      |                    |            |            |            |            |            | -          | -          | -          |            | -          | -          |            |
|          | 1.2-dichlorobenzene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorobenzene               |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Heyachlorobutadiene         |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          |                             |                    | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



|          |                              |                           | F-TP112    | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP114    | F-TP114    | F-TP114    | F-TP114    | F-TP114    | F-BH119    |
|----------|------------------------------|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                              | <b>Redcar Remediation</b> | 3.7        | 0.2        | 0.5        | 2.5        | 3.3        | 4.5        | 0.3        | 1          | 3.3        | 4          | 4.3        | 2.9        |
| Group    | Compound                     | Criteria - Soil           | 26/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 09/08/2022 |
|          |                              |                           | TFD        | GMG        | GMG        | GMG        | GMG        | TFD        | GMG        | SMG        | GMG        | GMG        | TFD        | GMG        |
|          |                              |                           |            |            |            |            |            |            |            |            |            |            |            |            |
| SVOC     | 1,4-dinitrobenzene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Benzyl alcohol               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-bromophenyl phenyl ether   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-nitroaniline               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-nitrophenol                |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-Dinitrobenzene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-Dinitrobenzene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,3,4,6-tetrachlorophenol    |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,3,5,6-Tetrachlorophenol    |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4,5-trichlorophenol        |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4,6-trichlorophenol        |                           | -          | -          | -          | <0.01      | -          | -          | -          | <0.01      | -          | -          | -          | -          |
|          | 2,4-dichlorophenol           |                           | -          | -          | -          | <0.01      | -          | -          | -          | <0.01      | -          | -          | -          | -          |
|          | 2,4-dimethylphenol           |                           | -          | -          | -          | <0.01      | -          | -          | -          | < 0.01     | -          | -          | -          | -          |
|          | 2,4-dinitrotoluene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2,6-dichlorophenol           |                           | -          | -          | -          | < 0.01     | -          | -          | -          | < 0.01     | -          | -          | -          | -          |
|          | 2,6-Dimethylphenol           |                           | -          | -          | -          | <0.01      | -          | -          | -          | < 0.01     | -          | -          | -          | -          |
|          | 2,6-dinitrotoluene           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chloronaphthalene          |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorophenol               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylnaphthalene          |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylphenol               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 2-nitroaniline               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 3-nitroaniline               |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4,6-Dinitro-2-methylphenol   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorophenyl phenyl ether  |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | 4-methylphenol               |                           | -          | -          | -          | < 0.01     | -          | -          | -          | < 0.01     | -          | -          | -          | -          |
|          | Azobenzene                   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroethoxy) methane  |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroisopropyl) ether |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-ethylhexyl) phthalate  |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Butyl benzyl phthalate       |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Carbazole                    |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dibenzofuran                 |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Diethylphthalate             |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Dimethyl phthalate           |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Di-n-butyl phthalate         |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Di-n-octyl phthalate         |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Diphenylamine                |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobenzene            |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorocyclopentadiene    |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|          | Pentachlorophenol            |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |



|           |   |                           | F-TP112    | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP113    | F-TP114    | F-TP114    | F-TP114    | F-TP114    | F-TP114    | F-BH119    |
|-----------|---|---------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical  | Commonwed   | <b>Redcar Remediation</b> | 3.7        | 0.2        | 0.5        | 2.5        | 3.3        | 4.5        | 0.3        | 1          | 3.3        | 4          | 4.3        | 2.9        |
| Group     | Compound  | Criteria - Soil           | 26/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 23/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 22/09/2022 | 09/08/2022 |
|           |   |                           | TFD        | GMG        | GMG        | GMG        | GMG        | TFD        | GMG        | SMG        | GMG        | GMG        | TFD        | GMG        |
| DCP       | Hantachlarabinhanyl 2.2.2.4.4.5.5 (DCR 180)       |                           |            |            |            | <0.01      |            |            |            |            |            |            |            |            |
| FCB       | Heycohlerohiphenyl 222445 (PCB 169)               |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (FCB 150)        |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Hexachiolopiphenyl, $2,3,4,4,5,5$ - (PCB 107)     |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | DCP 101   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           |   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           |   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCB 150   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCD 133   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           |   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           |   |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | PCD 52<br>Dentechlershiphenyd 2.2.2.4.4 (DCD 405) |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachiorobiphenyl, 2,3,3,4,4- (PCB 105)         |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachiorobiphenyl, 2,3,4,4,5- (PCB 114)         |                           | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Pentachiorobiphenyl, 2,3,4,4,5- (PCB 123)         |                           | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Tetrachioropiphenyl, 3,3,4,4,5- (PCB 120)         |                           | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Tetrachiorobiphenyl, 3,3,4,4- (PCB 77)            |                           | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Tetrachiorobiphenyl, 3,4,4,5- (PCB 81)            |                           | -          | -          | -          | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          |
| Dhanallaa | 10tal PCB / Congeners                             |                           | -          | -          | -          | <0.01      | -          | -          | -          | -          | -          | -          | -          | -          |
| Phenolics |   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
|           | Phenoi<br>Anilina                                 |                           | <0.3       | < 0.3      | -          | < 0.01     | <0.3       | <0.3       | -          | <0.01      | <0.3       | <0.3       | <0.3       | <0.3       |
|           | Aniline   |                           | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          | -          |
| NA        | 4-chioro-2-methylphenol                           |                           | -          | -          | -          | < 0.01     | -          | -          | -          | <0.01      | -          | -          | -          | -          |
| Notes     |   |                           |            |            |            |            |            |            |            |            |            |            |            |            |

Exceeds - Adopted Scre



| Appendix H : C | Comparison of Measured Concentrations of Co | oC in Soil with GAC (mo |              |               |               |               |                |            |            |            |             |            |            |            |
|----------------|---|-------------------------|--------------|---------------|---------------|---------------|----------------|------------|------------|------------|-------------|------------|------------|------------|
|                |   |                         |              |               |               |               |                |            |            |            |             |            |            |            |
|                |   |                         | F-BH119      | F-BH119       | LWW-TP5       | LWW-TP5       | LWW-TP5        | F-TP120    | F-TP120    | F-TP120    | F-TP120     | F-TP120    | F-TP121    | F-TP121    |
| Chemical       | Compound                                    | Redcar Remediation      | 4.3          | 12.9          | 2             | 4             | 1              | 0          | 0.5        | 1.5        | 2.3         | 3          | 0          | 0.5        |
| Group          |   | Criteria - Soli         | 09/06/2022   | 10/06/2022    | 00/12/2022    | 00/12/2022    | 06/12/2022     | 00/10/2022 | 00/10/2022 | 00/10/2022 | 00/10/2022  | 06/10/2022 | 06/10/2022 | 00/10/2022 |
|                |   |                         | IFD          | GI            |               |               |                | GMG        | GMG        | GMG        | GMG         | GMG        | GMG        | GMG        |
| Metals         | Aluminium                                   | 640                     | 1200         | -             | 29580         | 42860         | 62430          | 4400       | 5000       | -          | 5800        | 5200       |            | 10,000     |
|                | Beryllium                                   | 040                     | 9.5          | 1.3           | 12.9          | 48.3          | 11.0           | 4          | 3.8<br>0.3 | -          | 0.4         | 4.0        | -          | 0.1        |
|                | Boron                                       | 240000                  | <0.2         | 6.3           | 3.1           | 5.1           | 2.2            | 1.7        | 1.8        |            | 1.8         | 2.2        | -          | 0.7        |
|                | Cadmium                                     | 190                     | <0.1         | <0.1          | 0.7           | 1.6           | 0.2            | 0.4        | 0.3        | -          | 0.5         | 0.4        | -          | 0.1        |
|                | Chromium (hexavalent)                       | 33                      | <1           | <1            | <0.3          | <0.3          | <0.3           | <1         | <1         | -          | <1          | <1         | -          | <1         |
|                | Chromium                                    | 8600                    | -            | -             | 805.2         | 130.7         | 115.4          | -          | -          | -          | -           | -          | -          | -          |
|                | Chromium (Trivalent)                        | 69000                   | 4./          | 35            | -             | - 120         | - 24           | 1/0        | 940        | -          | <u> </u>    | 810        | -          | 48         |
|                | Iron  | 00000                   | 7300         | 21            | 132600        | 93510         | 24<br>96870    | 25,000     | 42         | -          | 130,000     | 47         | -          | 38,000     |
|                | Lead  | 2300                    | 21           | 18            | 78            | 247           | 36             | 100        | 20         |            | 30          | 33         |            | 14         |
|                | Manganese                                   | -                       | 200          | -             | 17700         | 3744          | 5244           | 3100       | 20,000     | -          | 22,000      | 19,000     | -          | 1000       |
|                | Mercury                                     | 58*                     | < 0.05       | < 0.05        | <0.1          | 0.2           | <0.1           | 0.05       | < 0.05     | -          | 0.08        | 0.1        | -          | < 0.05     |
|                | Molybdenum                                  |                         | 0.4          | -             | 3.6           | 3             | 1.4            | 1.7        | 6.3        | -          | 6.8         | 5.3        |            | 1.2        |
|                | Nickel                                      | 980                     | 2.9          | 35            | 29.1          | 54.8          | 19.8           | 8.1        | 11         | -          | 23          | 14         |            | 23         |
|                |   | -                       | <0.5         | <0.5          | 4             | 3             | 3              | 6          | 5.9        | -          | 0. <i>1</i> | 5.5<br>0.7 | -          | <0.5       |
|                | Zinc  | 730000                  | 31           | 63            | 247           | 598           | 109            | 160        | 49         | -          | 56          | 86         | -          | 54         |
| Asbestos       | Asbestos Quantification Total               | 100000                  | -            | -             | -             | -             | -              | -          | =          | -          | -           | -          | -          | -          |
|                | Asbestos fibres                             |                         | -            | -             | 0             | 0             | 1              | 0          | 0          | 0          | 0           | -          | 0          | 0          |
| Inorganics     | Chloride                                    |                         | 33.2         | -             | 183           | 111           | 140            | 63.5       | 79.9       | -          | 70.1        | 61.8       | -          | 20.1       |
| DALL           | Orthophosphate as P                         |                         | 0.12         | -             | -             | -             | -              | <0.1       | 0.41       | -          | 0.13        | 0.35       | -          | 0.12       |
| PAH            | PAH 16 10tal                                | 1000                    | <0.1         | <0.1          | -             | -             | -              | 98         | 18         | -          | 0.62        | 0.24       | -          | <0.1       |
|                | Acenaphthene                                | 84000**                 | <0.03        | <0.03         | <0.027 - 0.18 | <0.027 = 0.13 | <0.027 = 0.03  | 16         | 0.04       |            | <0.03       | <0.03      |            | <0.03      |
|                | Acenaphthylene                              | 83000**                 | -            | -             | 0.24          | 0.14          | < 0.03         | -          | -          | -          | -           | -          | -          | -          |
|                | Fluoranthene                                | 23000                   | <0.03        | < 0.03        | 1.26          | 1.88          | 0.14           | 12         | 3.5        | -          | 0.13        | 0.08       | -          | 0.04       |
|                | Phenanthrene                                | 22000                   | <0.03        | <0.03         | 0.75          | 1.01          | 0.11           | 15         | 0.95       | -          | 0.07        | 0.13       | -          | <0.03      |
|                | Fluorene                                    | 63000**                 | < 0.03       | < 0.03        | 0.1           | 0.07          | < 0.04         | 3.4        | 0.06       | -          | < 0.03      | <0.03      | -          | < 0.03     |
|                | Pyrene<br>Ponze(a)anthracana                | 54000                   | < 0.03       | <0.03         | 1.08          | 1.66          | 0.12           | 12         | 3.3        | -          | 0.1         | 0.04       | -          | < 0.03     |
|                | Benzo(h)fluoranthene                        | 44                      | <0.03        | <0.03         | 0.07          | 1.32          | 0.1            | 69         | 2          |            | 0.04        | <0.03      |            | <0.03      |
|                | Benzo(k)fluoranthene                        | 1200                    | < 0.03       | < 0.03        | 0.38          | 0.52          | 0.04           | 3.5        | 0.79       | _          | 0.03        | < 0.03     | -          | < 0.03     |
|                | Benzo(a)pyrene                              | 77                      | < 0.03       | <0.03         | 0.73          | 0.4 - 0.95    | <0.04          | 6.6        | 2          | -          | 0.05        | <0.03      | -          | < 0.03     |
|                | Dibenz(a,h)anthracene                       | 3.5                     | <0.03        | <0.03         | 0.12          | 0.14          | <0.04          | 0.52       | 0.13       | -          | <0.03       | < 0.03     | -          | < 0.03     |
|                | Benzo(g,h,i)perylene                        | 3900                    | < 0.03       | < 0.03        | 0.51          | 0.64          | 0.08           | 2.8        | 0.79       | -          | 0.03        | < 0.03     | -          | < 0.03     |
|                | Indeno(1,2,3-c,d)pyrene                     | 500                     | < 0.03       | < 0.03        | 0.55          | 0.73          | 0.08           | 2.4        | 0.6        | -          | 0.03        | <0.03      | -          | <0.03      |
| IFICWO         | >C6-C8 Aliphatics                           | 7800**                  | <0.01        | <0.01         | <0.1          | <0.1          | <0.1           | <0.04      | <0.01      |            | <0.01       | <0.01      |            | <0.01      |
|                | >C8-C10 Aliphatics                          | 2000**                  | < 0.01       | < 0.01        | <0.1          | <0.1          | <0.1           | < 0.01     | < 0.01     | -          | < 0.01      | < 0.01     | -          | < 0.01     |
|                | >C10-C12 Aliphatics                         | 9700**                  | <1.5         | <1.5          | <0.2          | <0.2          | 1.9            | <1.5       | <1.5       | -          | <1.5        | <1.5       | -          | <1.5       |
|                | >C12-C16 Aliphatics                         | 59000**                 | <1.2         | <1.2          | <4            | <4            | 14             | <1.2       | <1.2       | -          | <1.2        | <1.2       |            | <1.2       |
|                | >C16-C21 Aliphatics                         |                         | <1.5         | <1.5          | <7            | <7            | 41             | <1.5       | 2.4        | -          | <1.5        | <1.5       |            | <1.5       |
|                | Total >C5 - C40 Aliphatics                  |                         | <3.4<br>13.1 | <3.4<br>13.54 | 20            | 00            | 158            | <3.4       | 10<br>24   | -          | <3.4        | <3.4       | -          | < 3.4      |
|                | >EC5-EC7 Aromatics                          | 26000**                 | <0.01        | <0.01         | <0.1          | <0.1          | <0.1           | <0.01      | <0.01      | -          | <0.01       | < 0.01     | -          | <0.01      |
|                | >EC7-EC8 Aromatics                          | 56000**                 | < 0.01       | < 0.01        | <0.1          | <0.1          | <0.1           | < 0.01     | < 0.01     | -          | < 0.01      | < 0.01     | -          | < 0.01     |
|                | >EC8-EC10 Aromatics                         | 3500**                  | <0.01        | <0.01         | <0.1          | <0.1          | <0.1           | <0.01      | <0.01      | -          | < 0.01      | < 0.01     | -          | < 0.01     |
|                | >EC10-EC12 Aromatics                        | 16000**                 | <0.9         | <0.9          | <0.2          | <0.2          | <0.2           | <0.9       | <0.9       | -          | <0.9        | <0.9       | -          | <0.9       |
|                | >EC12-EC16 Aromatics                        | 36000**                 | <0.5         | <0.5          | <4            | 7             | <4             | 24         | <0.5       | -          | < 0.5       | < 0.5      | -          | < 0.5      |
|                | >EC10-EC21 Aromatics                        | 28000                   | 3.90         | 4.04          | 27<br>82      | 42            | 57             | 30         | 2.7        | -          | <0.0        | <0.0       |            | <0.0       |
|                | >EC35 - EC40 Aromatics                      | 20000                   | <1.4         | <1.4          | -             | -             |                |            | -          | -          |             |            | -          |            |
|                | >EC40-EC44 Aromatics                        |                         | -            | -             | -             | -             | -              | -          | -          | -          | -           | -          | -          | -          |
|                | Total >EC5 - EC40 Aromatics                 |                         | <10          | <10           | -             | -             | -              | 89         | <10        | -          | <10         | <10        | -          | <10        |
|                | Total Aliphatics + Aromatics (>C5 - C40)    |                         | 22.08        | 22.78         | -             | -             | -              | 90         | 31         | -          | <10         | <10        |            | <10        |
| BTEX and       | Benzene                                     |                         | -            | -             | < 0.003       | < 0.003       | < 0.003        | -          | < 0.002    | -          | < 0.002     | -          |            | < 0.002    |
| WIBE           | Ethylbenzene                                |                         | -            | -             | <0.003        | <0.003        | <0.003         | -          | <0.005     | -          | <0.005      | -          |            | <0.005     |
|                | Xylene (m & p)                              |                         | -            | -             | < 0.005       | < 0.005       | <0.005 - 0.011 | -          | -0.002     | -          | -0.002      | -          | -          | -0.002     |
|                | Xylene (o)                                  |                         | -            | -             | < 0.003       | < 0.003       | < 0.003        | -          | < 0.002    | -          | < 0.002     | -          | -          | < 0.002    |
|                | Xylene Total                                |                         | -            | -             | -             | -             | -              | -          | -          | -          | -           | -          | -          | -          |
|                | МТВЕ  |                         | -            | -             | < 0.002       | <0.002        | < 0.002        | -          | <0.005     | -          | < 0.005     | -          | -          | < 0.005    |



|          |                             |                    | F-BH119    | F-BH119    | LWW-TP5    | LWW-TP5    | LWW-TP5    | F-TP120    | F-TP120    | F-TP120    | F-TP120    | F-TP120    | F-TP121    | F-TP121    |
|----------|-----------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                             | Redcar Remediation | 4.3        | 12.9       | 2          | 4          | 1          | 0          | 0.5        | 1.5        | 2.3        | 3          | 0          | 0.5        |
| Group    | Compound                    | Criteria - Soil    | 09/08/2022 | 10/08/2022 | 06/12/2022 | 06/12/2022 | 06/12/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 |
|          |                             |                    | TFD        | GT         |            |            |            | GMG        |
| VOC      | Styrene                     |                    |            |            | <0.003     | <0.003     | <0.003     |            |            |            |            |            |            |            |
| VOC      | cis_1 3-dichloropropene     |                    |            |            | < 0.003    | <0.003     | < 0.003    |            |            |            |            |            |            |            |
|          | trans-1.3-dichloropropene   |                    |            |            | <0.004     | <0.004     | <0.004     |            |            |            |            |            |            |            |
|          | 1 1 1 2-tetrachloroethane   |                    | -          | _          | <0.003     | <0.003     | <0.003     | -          | _          | -          | _          | -          | _          | _          |
|          | 1,1,1,1,2 totalenerootalane |                    | -          | _          | < 0.003    | < 0.003    | < 0.003    | _          | _          | _          | _          | _          | -          | _          |
|          | 1,1,2-trichloroethane       |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | _          | -          | -          | -          |
|          | 1.1-dichloroethane          |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | 1.1-dichloroethene          |                    | -          | -          | < 0.006    | < 0.006    | < 0.006    | -          | -          | -          | -          | -          | -          | -          |
|          | 1.1-dichloropropene         |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,3-trichloropropane      |                    | -          | -          | < 0.004    | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trimethylbenzene      |                    | -          | -          | < 0.006    | < 0.006    | < 0.006    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromo-3-chloropropane |                    | -          | -          | < 0.004    | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dibromoethane           |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloroethane          |                    | -          | -          | <0.004     | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichloropropane         |                    | -          | -          | <0.006     | <0.006     | < 0.006    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3,5-trimethylbenzene      |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichloropropane         |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | 2,2-dichloropropane         |                    | -          | -          | < 0.004    | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorotoluene             |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorotoluene             |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Bromobenzene                |                    | -          | -          | < 0.002    | < 0.002    | < 0.002    | -          | -          | -          | -          | -          | -          | -          |
|          | Bromochloromethane          |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Bromodichloromethane        |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Bromoform                   |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Carbon tetrachloride        |                    | -          | -          | < 0.004    | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorodibromomethane        |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Chloroform                  |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | cis-1,2-dichloroethene      |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Dibromomethane              |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Isopropylbenzene            |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | n-butylbenzene              |                    | -          | -          | <0.004     | <0.004     | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | n-propylbenzene             |                    | -          | -          | < 0.004    | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | p-isopropyltoluene          |                    | -          | -          | <0.004     | <0.004     | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | sec-butylbenzene            |                    | -          | -          | <0.004     | <0.004     | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | Trichloroethene             |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | tert-butylbenzene           |                    | -          | -          | <0.005     | <0.005     | < 0.005    | -          | -          | -          | -          | -          | -          | -          |
|          | Tetrachloroethene           |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | trans-1,2-dichloroethene    |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Vinyl chloride              |                    | -          | -          | < 0.002    | <0.002     | < 0.002    | -          | -          | -          | -          | -          | -          | -          |
|          | tert-Amyl methyl ether      |                    | -          | -          | -          | -          | -          | -          | < 0.005    | -          | < 0.005    | -          | -          | < 0.005    |
| VOC/SVOC | 1,2,3-trichlorobenzene      |                    | -          | -          | <0.007     | < 0.007    | < 0.007    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2,4-trichlorobenzene      |                    | -          | -          | < 0.007    | < 0.007    | < 0.007    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-dichlorobenzene         |                    | -          | -          | <0.004     | <0.004     | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-dichlorobenzene         |                    | -          | -          | <0.004     | <0.004     | < 0.004    | -          | -          | -          | -          | -          | -          | -          |
|          | 1,4-dichlorobenzene         |                    | -          | -          | <0.004     | <0.004     | <0.004     | -          | -          | -          | -          | -          | -          | -          |
|          | Chlorobenzene               |                    | -          | -          | < 0.003    | < 0.003    | < 0.003    | -          | -          | -          | -          | -          | -          | -          |
|          | Hexachlorobutadiene         |                    | -          | -          | < 0.004    | < 0.004    | < 0.004    | -          | -          | -          | -          | -          | -          | -          |



|          |                              |                    | F-BH119    | F-BH119    | LWW-TP5    | LWW-TP5    | LWW-TP5   | F-TP120    | F-TP120    | F-TP120    | F-TP120    | F-TP120    | F-TP121    | F-TP121    |
|----------|------------------------------|--------------------|------------|------------|------------|------------|---|------------|------------|------------|------------|------------|------------|------------|
| Chemical | Compound                     | Redcar Remediation | 4.3        | 12.9       | 2          | 4          | 1   | 0          | 0.5        | 1.5        | 2.3        | 3          | 0          | 0.5        |
| Group    | Compound                     | Criteria - Soil    | 09/08/2022 | 10/08/2022 | 06/12/2022 | 06/12/2022 | 06/12/2022  | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 |
|          |                              |                    | TFD        | GT         |            |            |   | GMG        |
| SVOC     | 1,4-dinitrobenzene           |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | Benzyl alcohol               |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | 4-bromophenyl phenyl ether   |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 4-nitroaniline               |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 4-nitrophenol                |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 1,2-Dinitrobenzene           |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | 1,3-Dinitrobenzene           |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | 2,3,4,6-tetrachlorophenol    |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | 2,3,5,6-Tetrachlorophenol    |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4,5-trichlorophenol        |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 2,4,6-trichlorophenol        |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | < 0.01     | -          | -          | -          | -          | < 0.01     |
|          | 2,4-dichlorophenol           |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | < 0.01     | -          | -          | -          | -          | < 0.01     |
|          | 2,4-dimethylphenol           |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | < 0.01     | -          | -          | -          | -          | < 0.01     |
|          | 2,4-dinitrotoluene           |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 2,6-dichlorophenol           |                    | -          | -          | -          | -          | -   | -          | < 0.01     | -          | -          | -          | -          | < 0.01     |
|          | 2,6-Dimethylphenol           |                    | -          | -          | -          | -          | -   | -          | < 0.01     | -          | -          | -          | -          | < 0.01     |
|          | 2,6-dinitrotoluene           |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chloronaphthalene          |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 2-chlorophenol               |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylnaphthalene          |                    | -          | -          | 0.07       | 0.22       | 0.04  | -          | -          | -          | -          | -          | -          | -          |
|          | 2-methylphenol               |                    | -          | -          | < 0.01     | < 0.01     | <0.01   | -          | -          | -          | -          | -          | -          | -          |
|          | 2-nitroaniline               |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 3-nitroaniline               |                    | -          | -          | < 0.01     | < 0.01     | <0.01   | -          | -          | -          | -          | -          | -          | -          |
|          | 4,6-Dinitro-2-methylphenol   |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | 4-chlorophenyl phenyl ether  |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | 4-methylphenol               |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | 0.01       | -          | -          | -          | -          | 0.01       |
|          | Azobenzene                   |                    | -          | -          | < 0.01     | < 0.01     | < 0.01  | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroethoxy) methane  |                    | -          | -          | <0.01      | < 0.01     | <0.01   | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-chloroisopropyl) ether |                    | -          | -          | -          | -          | -   | -          | -          | -          | -          | -          | -          | -          |
|          | Bis(2-ethylnexyl) phthalate  |                    | -          | -          | <0.1       | <0.1       | <0.1  | -          | -          | -          | -          | -          | -          | -          |
|          | Butyl benzyl phthalate       |                    | -          | -          | <0.1       | <0.1       | <0.1  | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                    | -          | -          | 0.04       | 0.18       | 0.02  | -          | -          | -          | -          | -          | -          | -          |
|          | Dibenzoturan                 |                    | -          | -          | 0.06       | 0.13       | 0.03  | -          | -          | -          | -          | -          | -          | -          |
|          | Dietnylphthalate             |                    | -          | -          | <0.1       | <0.1       | <0.1  | -          | -          | -          | -          | -          | -          | -          |
|          | Dimetriyi phthalate          |                    | -          | -          | <0.1       | <0.1       | <0.1  | -          | -          | -          | -          | -          | -          | -          |
|          | Di-n-butyl phthalate         |                    | -          | -          | 0.3        | <0.1       | <0.1  | -          | -          | -          | -          | -          | -          | -          |
|          | Di-h-oclyi phinalale         |                    | -          | -          | <0.1       | <0.1       | <u.1< th=""><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th></u.1<> | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                    | -          | -          | =          | =          | -   | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                    | -          | -          | <0.01      | <0.01      | <0.01   | -          | -          | -          | -          | -          | -          | -          |
|          |                              |                    | -          | -          | <0.01      | <0.01      | <0.01   | -          | -          | -          | -          | -          | -          | -          |
|          | Pentachiorophenol            |                    | -          | -          | <0.01      | <0.01      | <0.01   | -          | -          | -          | -          | -          | -          | -          |



|           |   |                    | F-BH119    | F-BH119    | LWW-TP5    | LWW-TP5    | LWW-TP5    | F-TP120    | F-TP120     | F-TP120    | F-TP120    | F-TP120    | F-TP121    | F-TP121    |
|-----------|---|--------------------|------------|------------|------------|------------|------------|------------|-------------|------------|------------|------------|------------|------------|
| Chemical  | Commonweak                                    | Redcar Remediation | 4.3        | 12.9       | 2          | 4          | 1          | 0          | 0.5         | 1.5        | 2.3        | 3          | 0          | 0.5        |
| Group     | Compound                                      | Criteria - Soil    | 09/08/2022 | 10/08/2022 | 06/12/2022 | 06/12/2022 | 06/12/2022 | 06/10/2022 | 06/10/2022  | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 | 06/10/2022 |
|           |   |                    | TED        | GT         |            |            |            | GMG        | GMG         | GMG        | GMG        | GMG        | GMG        | GMG        |
|           |   |                    |            | Ű,         |            |            |            | Child      | Child       | Child      |            | Cinc       | Child      |            |
| РСВ       | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB 189) |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 101                                       |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 118                                       |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 138                                       |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 153                                       |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 180                                       |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 28 + PCB 31                               |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | PCB 52  |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
|           | Total PCB 7 Congeners                         |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
| Phenolics | 3-&4-methylphenol                             |                    | -          | -          | -          | -          | -          | -          | -           | -          | -          | -          | -          | -          |
|           | Phenol  |                    | < 0.3      | <0.3       | < 0.01     | < 0.01     | < 0.01     | <0.3       | <0.3 - 0.02 | -          | < 0.3      | <0.3       | -          | < 0.01     |
| SVOC TIC  | Aniline                                       |                    | -          | -          | -          | -          | -          | -          | -           | -          | -          | -          | -          | -          |
| NA        | 4-chloro-2-methylphenol                       |                    | -          | -          | -          | -          | -          | -          | < 0.01      | -          | -          | -          | -          | < 0.01     |
| NL 1 1 1  |   |                    |            |            |            |            |            |            |             |            |            |            |            |            |

Notes

Exceeds - Adopted Scre



| Appendix H : 0 | Comparison of Measured Concentrations of Co | oC in Soil with GAC (m |            |            |                |            |                 |              |               |            |                       |            |            |            |
|----------------|---|------------------------|------------|------------|----------------|------------|-----------------|--------------|---------------|------------|-----------------------|------------|------------|------------|
|                |   |                        |            |            |                | Re         | sidual Former I | Redcar Works |               |            |                       |            |            |            |
|                |   |                        | F-TP121    | F-TP121    | F-TP121        | F-BH102    | F-BH102         | F-BH102      | F-BH102       | F-BH102    | F-BH104               | F-BH104    | F-BH104    | F-BH104    |
| Chemical       | Compound                                    | Redcar Remediation     | 0.8        | 1.8        | 3.8            | 1          | 1.5             | 6.6          | 8.2           | 14.5       | 3                     | 4          | 5          | 6          |
| Group          |   | Criteria - Soli        | 06/10/2022 | 00/10/2022 | 00/10/2022     | 09/09/2022 | 05/05/2022      | 09/09/2022   | 09/09/2022    | 12/09/2022 | 11/06/2022            | 11/06/2022 | 17/06/2022 | 17/06/2022 |
|                |   |                        | GMG        | GMG        | GMG            | SMG        | SMG             | SMG          | IFD           | IFD        | SMG                   | SMG        | SMG        | IFD        |
| Metals         | Aluminium                                   | 640                    | 9900       | 8800       | 19,000         | 49,000     | -               | -            | - 7.5         | 2500       | 8900                  | 6500       |            | 820        |
|                | Beryllium                                   | 040                    | 0.9        | 11         | 1.9            | 4.0        | -               | 92           | 7.5<br>0.2    | <0.2       | 0.3                   | 29         |            | <b>0.3</b> |
|                | Boron                                       | 240000                 | 0.9        | 1.1        | 3.2            | 1.6        |                 | 8.6          | 1.2           | 0.7        | 1.3                   | 0.7        | -          | 0.3        |
|                | Cadmium                                     | 190                    | 0.2        | 0.2        | 0.4            | 0.2        | -               | <0.1         | <0.1          | <0.1       | <0.1                  | 0.2        | -          | <0.1       |
|                | Chromium (hexavalent)                       | 33                     | <1         | <1         | <1             | <1         | -               | <1           | <1            | <1         | <1                    | <1         | -          | <1         |
|                | Chromium                                    | 8600                   | -          | -          | -              | -          | -               | -            | -             | -          | -                     | -          | -          | -          |
|                | Chromium (Trivalent)                        | 68000                  | 22         | 28         | 36             | 53         | -               | 5.9          | 5.2           | 5.6        | 35                    | 360        | -          | 3.4        |
|                | Iron  | -                      | 31,000     | 20.000     | 14,000         | 14,000     | -               | - 4.5        |               | 18,000     | 94,000                | 62,000     | -          | 4800       |
|                | Lead  | 2300                   | 23         | 42         | 49             | 12         | -               | 1            | 34            | 4.8        | 13                    | 21         | -          | 6.2        |
|                | Manganese                                   | -                      | 900        | 1000       | 1500           | 2900       | -               | -            | -             | 320        | 1400                  | 68,000     | -          | 120        |
|                | Mercury                                     | 58*                    | < 0.05     | < 0.05     | < 0.05         | < 0.05     | -               | < 0.05       | < 0.05        | < 0.05     | < 0.05                | <0.05      | -          | < 0.05     |
|                | Molybdenum                                  |                        | 0.8        | 0.8        | 0.5            | 1.4        | -               | -            | -             | 1.2        | 2.3                   | 1.4        | -          | <0.4       |
|                | NICKE                                       | 980                    | <u>31</u>  | 15         | <u>б</u><br>07 | 2./        | -               | <1<br>0      | 4./           | <u>6.6</u> | 10                    | 1/         |            | 2.5        |
|                | Tin   | -                      | 12         | 24         | 0.7            | 1.0        |                 |              |               | <1         | 1 9                   | 23         |            | <0.0       |
|                | Zinc  | 730000                 | 72         | 86         | 260            | 55         | -               | 5.5          | 29            | 24         | 29                    | 78         | -          | 12         |
| Asbestos       | Asbestos Quantification Total               |                        | -          | -          | -              | -          | -               | -            | -             | -          | -                     | -          |            | -          |
|                | Asbestos fibres                             |                        | 0          | 0          | -              | 0          | 0               | 0            | -             | -          | 0                     | 0          | 0          | -          |
| Inorganics     | Chloride                                    |                        | 18.8       | 131        | 74.1           | 36.7       | -               | -            | -             | 532        | 31.7                  | 29.6       | -          | 45.5       |
| DAU            | Orthophosphate as P                         |                        | <0.1       | 0.25       | <0.1           | <0.1       | -               | -            | -             | 0.52       | 0.16                  | <0.1       |            | <0.1       |
| PAH            | Nanhthalene                                 | 1000                   | <0.1       | <u>Z.1</u> | 0.03           | 0.11       | -               | 0.39         | <0.1          | <0.1       | 0.51                  | 0.04       |            | <0.1       |
|                | Acenaphthene                                | 84000**                | <0.03      | <0.03      | 0.05           | 4.9        |                 | <0.03        | <0.03         | <0.03      | <0.03                 | <0.04      |            | <0.03      |
|                | Acenaphthylene                              | 83000**                | -          | -          | -              | -          | -               | -            | -             | -          | -                     | -          | -          | -          |
|                | Fluoranthene                                | 23000                  | 0.03       | 0.55       | 2.4            | 72         | -               | 0.07         | < 0.03        | < 0.03     | 0.06                  | 0.19       | -          | < 0.03     |
|                | Phenanthrene                                | 22000                  | < 0.03     | 0.43       | 1.5            | 28         | -               | < 0.03       | < 0.03        | <0.03      | 0.03                  | 0.13       | -          | < 0.03     |
|                | Fluorene                                    | 63000**                | < 0.03     | < 0.03     | 0.07           | 2.1        | -               | < 0.03       | < 0.03        | < 0.03     | < 0.03                | < 0.03     | -          | < 0.03     |
|                | Pyrene<br>Ponze(a)anthracono                | 54000                  | <0.03      | 0.39       | 1.6            | 69         | -               | 0.07         | <0.03         | < 0.03     | 0.12                  | 0.17       | -          | < 0.03     |
|                | Benzo(b)fluoranthene                        | 44                     | 0.03       | 0.29       | 0.73           | 20         |                 | 0.05         | <0.03         | <0.03      | 0.03                  | 0.07       | -          | <0.03      |
|                | Benzo(k)fluoranthene                        | 1200                   | < 0.03     | 0.20       | 0.43           | 16         | _               | 0.03         | < 0.03        | < 0.03     | < 0.03                | 0.05       | -          | < 0.03     |
|                | Benzo(a)pyrene                              | 77                     | < 0.03     | 0.21       | 0.27           | 27         | -               | 0.05         | < 0.03        | < 0.03     | 0.04                  | 0.05       | -          | < 0.03     |
|                | Dibenz(a,h)anthracene                       | 3.5                    | < 0.03     | <0.03      | 0.03           | 4.2        | -               | < 0.03       | < 0.03        | <0.03      | <0.03                 | <0.03      | -          | <0.03      |
|                | Benzo(g,h,i)perylene                        | 3900                   | < 0.03     | 0.08       | 0.11           | 15         | -               | < 0.03       | < 0.03        | < 0.03     | < 0.03                | 0.05       | -          | < 0.03     |
|                | Indeno(1,2,3-c,d)pyrene                     | 500                    | < 0.03     | 0.07       | 0.11           | 16         | -               | 0.03         | < 0.03        | < 0.03     | < 0.03                | 0.04       |            | < 0.03     |
| IPHCWG         | >C6-C8 Aliphatics                           | 7800**                 | <0.01      | <0.01      | <0.01          | <0.01      | <0.01           | <0.01        | <0.01         | <0.01      | <0.01                 | <0.01      | -          | <0.01      |
|                | >C8-C10 Aliphatics                          | 2000**                 | < 0.01     | < 0.01     | < 0.01         | < 0.01     | < 0.01          | < 0.01       | < 0.01        | < 0.01     | < 0.01                | < 0.01     | -          | < 0.01     |
|                | >C10-C12 Aliphatics                         | 9700**                 | <1.5       | <1.5       | 2.1            | 1.68       | 1.87            | 1.9          | 2.59          | 1.83       | 5.01                  | 4.88       | -          | 5.37       |
|                | >C12-C16 Aliphatics                         | 59000**                | <1.2       | <1.2       | 2.1            | 1.79       | 1.52            | <1.2         | 2.47          | 1.4        | 1.99                  | 2.29       |            | 3.26       |
|                | >C16-C21 Aliphatics                         |                        | <1.5       | 2.8        | 8.8            | 2.75       | <1.5            | <1.5         | <1.5          | <1.5       | <1.5                  | <1.5       | -          | 1.95       |
|                | >C21-C35 Aliphatics                         |                        | < 3.4      | 9.1        | 21             | 177.1      | < 3.4           | < 3.4        | <3.4<br>15.17 | < 3.4      | < <u>3.4</u><br>16.11 | <3.4       | -          | <3.4       |
|                | >EC5-EC7 Aromatics                          | 26000**                | <0.01      | <0.01      | <0.01          | <0.01      | <0.01           | <0.01        | <0.01         | <0.01      | <0.01                 | <0.01      |            | <0.01      |
|                | >EC7-EC8 Aromatics                          | 56000**                | < 0.01     | < 0.01     | < 0.01         | < 0.01     | < 0.01          | < 0.01       | < 0.01        | < 0.01     | < 0.01                | < 0.01     | -          | < 0.01     |
|                | >EC8-EC10 Aromatics                         | 3500**                 | <0.01      | <0.01      | < 0.01         | < 0.01     | <0.01           | < 0.01       | < 0.01        | <0.01      | <0.01                 | <0.01      | -          | < 0.01     |
|                | >EC10-EC12 Aromatics                        | 16000**                | <0.9       | 2.9        | <0.9           | 1.22       | <0.9            | <0.9         | <0.9          | <0.9       | <0.9                  | <0.9       | -          | <0.9       |
|                | >EC12-EC16 Aromatics                        | 36000**                | < 0.5      | 3          | 1.7            | 20.59      | < 0.5           | < 0.5        | < 0.5         | < 0.5      | 0.97                  | < 0.5      | -          | <0.5       |
|                | >EC16-EC21 Aromatics                        | 28000                  | <0.6       | 9.4        | 23             | 227.4      | 1.04            | 2.37         | 1.28          | 1.1/       | 52.62                 | 4.56       | -          | 4.93       |
|                | >EC35 - EC40 Aromatics                      | 20000                  |            |            |                | 58 48      | <1.4            | <1.4         | <1.4          | <1.4       | 124.3                 | <1 4       |            | <1.4       |
|                | >EC40-EC44 Aromatics                        |                        | -          | -          | -              | -          | - 11            |              |               | - 17       | -                     |            | -          |            |
|                | Total >EC5 - EC40 Aromatics                 |                        | <10        | 38         | 59             | 1187       | <10             | <10          | <10           | <10        | 593.4                 | 11.2       | -          | 10.29      |
|                | Total Aliphatics + Aromatics (>C5 - C40)    |                        | <10        | 51         | 94             | 1643       | 17.94           | 18.75        | 21.59         | 18.92      | 609.5                 | 27.24      | -          | 29.52      |
| BTEX and       | Benzene                                     |                        | < 0.01     | < 0.002    | < 0.002        | < 0.002    | -               | -            | < 0.002       | -          | < 0.002               | < 0.01     |            | < 0.002    |
| MTBE           |   |                        | < 0.01     | < 0.005    | <0.005         | < 0.005    | -               | -            | < 0.005       | -          | < 0.005               | < 0.01     | - /        | < 0.005    |
|                | Xvlene (m & n)                              |                        | <0.01      |            |                |            | -               | -            |               | -          | <0.002                | <0.01      |            | <0.002     |
|                | Xylene (o)                                  |                        | <0.01      | < 0.002    | < 0.002        | <0.002     |                 | -            | <0.002        |            | < 0.002               | <0.01      |            | < 0.002    |
|                | Xylene Total                                |                        | =          | =          | =              | =          | -               | -            | =             | -          | =                     | =          | -          | =          |
|                | МТВЕ  |                        | < 0.01     | < 0.005    | < 0.005        | < 0.005    | -               | -            | < 0.005       | -          | < 0.005               | <0.01      | -          | < 0.005    |



|          |                             |                    | F-TP121    | F-TP121    | F-TP121    | F-BH102    | F-BH102    | F-BH102    | F-BH102    | F-BH102    | F-BH104    | F-BH104    | F-BH104    | F-BH104    |
|----------|-----------------------------|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical |                             | Redcar Remediation | 0.8        | 1.8        | 3.8        | 1          | 1.5        | 6.6        | 8.2        | 14.5       | 3          | 4          | 5          | 6          |
| Group    | Compound                    | Criteria - Soil    | 06/10/2022 | 06/10/2022 | 06/10/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 | 12/09/2022 | 17/08/2022 | 17/08/2022 | 17/08/2022 | 17/08/2022 |
| i i      |                             |                    | GMG        | GMG        | GMG        | SMG        | SMG        | SMG        | TFD        | TFD        | SMG        | SMG        | SMG        | TFD        |
| VOC      | Styrene                     |                    | <0.01      | _          | _          | _          | _          | -          | _          | -          | -          | <0.01      | -          | _          |
|          | cis-1 3-dichloropropene     |                    | < 0.01     | _          | _          | _          | _          | _          | -          | -          | _          | <0.01      | -          | -          |
|          | trans-1.3-dichloropropene   |                    | < 0.01     | _          | _          | _          | _          | _          | _          | -          | -          | < 0.01     | -          | _          |
|          | 1,1,1,2-tetrachloroethane   |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,1,1-trichloroethane       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,1,2-trichloroethane       |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,1-dichloroethane          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,1-dichloroethene          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,1-dichloropropene         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2,3-trichloropropane      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2,4-trimethylbenzene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2-dibromo-3-chloropropane |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2-dibromoethane           |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2-dichloroethane          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2-dichloropropane         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,3,5-trimethylbenzene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,3-dichloropropane         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 2,2-dichloropropane         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 2-chlorotoluene             |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 4-chlorotoluene             |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Bromobenzene                |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Bromochloromethane          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Bromodichloromethane        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Bromoform                   |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Carbon tetrachloride        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Chlorodibromomethane        |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Chloroform                  |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | cis-1,2-dichloroethene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Dibromomethane              |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Isopropylbenzene            |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | n-butylbenzene              |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | n-propylbenzene             |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | p-isopropyltoluene          |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | sec-butylbenzene            |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Trichloroethene             |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | tert-butylbenzene           |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Tetrachloroethene           |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | trans-1,2-dichloroethene    |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Vinyl chloride              |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | tert-Amyl methyl ether      |                    | -          | < 0.005    | < 0.005    | < 0.005    | -          | -          | < 0.005    | -          | < 0.005    | -          | -          | < 0.005    |
| VOC/SVOC | 1,2,3-trichlorobenzene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2,4-trichlorobenzene      |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,2-dichlorobenzene         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,3-dichlorobenzene         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | 1,4-dichlorobenzene         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Chlorobenzene               |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |
|          | Hexachlorobutadiene         |                    | < 0.01     | -          | -          | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          |



|          |                              |                    | F-TP121   | F-TP121    | F-TP121    | F-BH102    | F-BH102    | F-BH102    | F-BH102    | F-BH102    | F-BH104    | F-BH104                                   | F-BH104    | F-BH104    |
|----------|------------------------------|--------------------|---|------------|------------|------------|------------|------------|------------|------------|------------|---|------------|------------|
| Chemical | 0                            | Redcar Remediation | 0.8   | 1.8        | 3.8        | 1          | 1.5        | 6.6        | 8.2        | 14.5       | 3          | 4   | 5          | 6          |
| Group    | Compound                     | Criteria - Soil    | 06/10/2022  | 06/10/2022 | 06/10/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 | 12/09/2022 | 17/08/2022 | 17/08/2022                                | 17/08/2022 | 17/08/2022 |
|          |                              |                    | GMG   | GMG        | GMG        | SMG        | SMG        | SMG        | TFD        | TFD        | SMG        | SMG                                       | SMG        | TFD        |
| SVOC     | 1 4-dinitrobenzene           |                    | <0.1  | -          | -          | -          | _          | _          | _          | _          | _          | <0.1                                      | _          | _          |
|          | Benzyl alcohol               |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 4-bromophenyl phenyl ether   |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 4-nitroaniline               |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 4-nitrophenol                |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 1,2-Dinitrobenzene           |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 1,3-Dinitrobenzene           |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2,3,4,6-tetrachlorophenol    |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2,3,5,6-Tetrachlorophenol    |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2,4,5-trichlorophenol        |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2,4,6-trichlorophenol        |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01                                    | -          | < 0.01     |
|          | 2,4-dichlorophenol           |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01                                    | -          | < 0.01     |
|          | 2,4-dimethylphenol           |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01                                    | -          | < 0.01     |
|          | 2,4-dinitrotoluene           |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2,6-dichlorophenol           |                    | -   | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01                                    | -          | < 0.01     |
|          | 2,6-Dimethylphenol           |                    | -   | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01                                    | -          | <0.01      |
|          | 2,6-dinitrotoluene           |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2-chloronaphthalene          |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2-chlorophenol               |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2-methylnaphthalene          |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2-methylphenol               |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 2-nitroaniline               |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 3-nitroaniline               |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 4,6-Dinitro-2-methylphenol   |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 4-chlorophenyl phenyl ether  |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | 4-methylphenol               |                    | -   | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01                                    | -          | <0.01      |
|          | Azobenzene                   |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Bis(2-chloroethoxy) methane  |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Bis(2-chloroisopropyl) ether |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Bis(2-ethylnexyl) phthalate  |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Butyl benzyl phthalate       |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          |                              |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Dipenzoturan                 |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Dietnylphthalate             |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Dimetry phthalate            |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | Di-n-bulyi phinalale         |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          |                              |                    | <u. i<="" th=""><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th>-</th><th><u. i<="" th=""><th>-</th><th>-</th></u.></th></u.> | -          | -          | -          | -          | -          | -          | -          | -          | <u. i<="" th=""><th>-</th><th>-</th></u.> | -          | -          |
|          |                              |                    | <u. i<br="">&lt;0.1</u.>  | -          | -          | -          | -          | -          | -          | -          | -          | <u.i< th=""><th>-</th><th>-</th></u.i<>   | -          | -          |
|          |                              |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          |                              |                    | <0.1  | -          | -          | -          | -          | -          | -          | -          | -          | <0.1                                      | -          | -          |
|          | remachiorophenoi             |                    | SU. I   | -          | -          | -          | -          | -          | -          | -          | -          | <u>∽∪.</u> ⊺                              | -          | -          |



|           |   |                    | F-TP121    | F-TP121    | F-TP121    | F-BH102    | F-BH102    | F-BH102    | F-BH102    | F-BH102    | F-BH104    | F-BH104    | F-BH104    | F-BH104    |
|-----------|---|--------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| Chemical  |   | Redcar Remediation | 0.8        | 1.8        | 3.8        | 1          | 1.5        | 6.6        | 8.2        | 14.5       | 3          | 4          | 5          | 6          |
| Group     | Compound                                      | Criteria - Soil    | 06/10/2022 | 06/10/2022 | 06/10/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 | 09/09/2022 | 12/09/2022 | 17/08/2022 | 17/08/2022 | 17/08/2022 | 17/08/2022 |
|           |   |                    | 0110       | 0110       |            | 0110       |            | 0110       |            |            |            | 0110       | 0110       |            |
|           |   |                    | GMG        | GMG        | GMG        | SMG        | SMG        | SMG        | IFD        | IFD        | SMG        | SMG        | SMG        | IFD        |
| РСВ       | Heptachlorobiphenyl, 2.3.3.4.4.5.5- (PCB 189) |                    | -          | < 0.01     | _          | -          | -          | -          | -          | -          | < 0.01     | -          | _          | < 0.01     |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 101                                       |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 118                                       |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 138                                       |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 153                                       |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 180                                       |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 28 + PCB 31                               |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | PCB 52  |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
|           | Total PCB 7 Congeners                         |                    | -          | < 0.01     | -          | -          | -          | -          | -          | -          | < 0.01     | -          | -          | < 0.01     |
| Phenolics | 3-&4-methylphenol                             |                    | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | <0.1       | -          | -          |
|           | Phenol  |                    | <0.1       | <0.3       | <0.3       | 0.4        | -          | 0.5        | 0.9        | < 0.3      | < 0.01     | < 0.01     | -          | < 0.01     |
| SVOC TIC  | Aniline                                       |                    | <0.1       | -          | -          | -          | -          | -          | -          | -          | -          | <0.1       | -          | -          |
| NA        | 4-chloro-2-methylphenol                       |                    | <0.1       | -          | -          | -          | -          | -          | -          | -          | < 0.01     | < 0.01     | -          | < 0.01     |
|           |   |                    |            |            |            |            |            |            |            |            |            |            |            |            |

Notes

Exceeds - Adopted Scre



| Appendix H : | Comparison of Measured Concentrations of | CoC in Soil with GAC (mg | :          |            |            |            |            |
|--------------|--|--------------------------|------------|------------|------------|------------|------------|
|              |  |                          |            |            |            |            |            |
| Chemical     |  | Pedcar Remediation       | F-BH104    | F-BH104    | 14AT7      | LWW-TP1    | LWW-TP1    |
| Group        | Compound                                 | Criteria - Soil          | 18/08/2022 | 18/08/2022 | 21/04/2004 | 05/12/2022 | 05/01/2023 |
|              |  |                          | GT         | RMF        |            |            |            |
| Matala       |  |                          | 20,000     |            |            | 11050      | 11000      |
| Metals       |  | 640                      | 20,000     | 42         | 8.1        | 73         | 0.8        |
|              | Bervllium                                | 0+0                      | 1.3        | 0.9        | -          | -          | -          |
|              | Boron                                    | 240000                   | 6.4        | 5.2        | 0.6        | 3          | 2.7        |
|              | Cadmium                                  | 190                      | <0.1       | 1.6        | 0.6        | 0.2        | <0.1       |
|              | Chromium (hexavalent)                    | 33                       | <1         | <1         | -          | < 0.3      | <0.3       |
|              | Chromium                                 | 8600                     | -          | -          | 18.8       | 1484       | 1850       |
|              | Chromium (Trivalent)                     | 00000                    | 45         | 19         | -          |            | -          |
|              | Copper                                   | 68000                    | 27         | 33         | 2.1        | /3         | 76         |
|              | Iron                                     | - 2200                   | 37,000     | - 26       | - 11.0     | 100800     | 142000     |
|              | Manganese                                | 2300                     | 570        | 20         | 11.9       | 29580      | 31300      |
|              | Manganese                                | 58*                      | <0.05      | 0.07       | <0.1       | <0.1       | <0.1       |
|              | Molybdenum                               |                          | 1          | -          | -          | 6.2        | 6.1        |
|              | Nickel                                   | 980                      | 40         | 33         | 2.6        | 16.4       | 22.1       |
|              | Selenium                                 | -                        | <0.5       | <0.5       | 7.4        | 10         | 8          |
|              | Tin                                      |                          | 1.1        | -          | -          | -          | -          |
|              | Zinc                                     | 730000                   | 53         | 46         | 75         | 158        | 182        |
| Asbestos     | Asbestos Quantification Total            |                          | -          | -          | -          | -          | -          |
|              | Asbestos fibres                          |                          | -          | -          | -          | 0          | 1          |
| Inorganics   | Chloride<br>Orthophoophoto on D          |                          | 321        | -          | -          | 47         | 45         |
|              | PAH 16 Total                             |                          | 0.18       | - <0.1     | -          |            | -          |
| ГАП          | Nanhthalene                              | 1900                     | <0.1       | <0.03      | <1         |            | -          |
|              | Acenaphthene                             | 84000**                  | < 0.03     | <0.03      | <1         | 0.05       | <0.05      |
|              | Acenaphthylene                           | 83000**                  | =          | -          | <1         | 0.07       | < 0.03     |
|              | Fluoranthene                             | 23000                    | < 0.03     | < 0.03     | 6          | 1.08       | 0.17       |
|              | Phenanthrene                             | 22000                    | < 0.03     | < 0.03     | 3          | 0.42       | 0.09       |
|              | Fluorene                                 | 63000**                  | < 0.03     | < 0.03     | <1         | <0.04      | <0.04      |
|              | Pyrene                                   | 54000                    | < 0.03     | < 0.03     | 5          | 0.91       | 0.14       |
|              | Benzo(a)anthracene                       | 170                      | < 0.03     | < 0.03     | 3          | 0.62       | 0.12       |
|              | Benzo(b)fluoranthene                     | 44                       | <0.03      | < 0.03     | 2          | 0.96       | 0.14       |
|              | Benzo(a)nyrene                           | 77                       | <0.03      | < 0.03     | 2          | 0.30       | <0.00      |
|              | Dibenz(a h)anthracene                    | 35                       | <0.03      | <0.03      | <1         | 0.15       | <0.04      |
|              | Benzo(g.h.i)pervlene                     | 3900                     | < 0.03     | < 0.03     | 1          | 0.57       | 0.09       |
|              | Indeno(1,2,3-c,d)pyrene                  | 500                      | < 0.03     | < 0.03     | 1          | 0.6        | 0.11       |
| TPH CWG      | >C5-EC6 Aliphatics                       |                          | < 0.01     | < 0.01     | -          |            | -          |
|              | >C6-C8 Aliphatics                        | 7800**                   | < 0.01     | < 0.01     | -          | <0.1       | <0.1       |
|              | >C8-C10 Aliphatics                       | 2000**                   | < 0.01     | < 0.01     | -          | <0.1       | <0.1       |
|              | >C10-C12 Aliphatics                      | 9700**                   | 5.26       | 4.69       | -          | <0.2       | < 0.2      |
|              | >C12-C16 Aliphatics                      | 59000**                  | 3.25       | 1.61       | -          | <4         | <4         |
|              | >C10-C21 Aliphatics                      |                          | <1.0       | <1.5       | -          | <7         | 21         |
|              | Total >C5 - C40 Aliphatics               |                          | 18 85      | 15.66      |            |            | -          |
|              | >EC5-EC7 Aromatics                       | 26000**                  | < 0.01     | < 0.01     | _          | <0.1       | <0.1       |
|              | >EC7-EC8 Aromatics                       | 56000**                  | < 0.01     | < 0.01     | -          | <0.1       | <0.1       |
|              | >EC8-EC10 Aromatics                      | 3500**                   | < 0.01     | < 0.01     | -          | <0.1       | <0.1       |
|              | >EC10-EC12 Aromatics                     | 16000**                  | <0.9       | <0.9       | -          | <0.2       | <0.2       |
|              | >EC12-EC16 Aromatics                     | 36000**                  | < 0.5      | <0.5       | -          | <4         | <4         |
|              | >EC16-EC21 Aromatics                     | 28000                    | 4.85       | 4.53       | -          | <7         | <7         |
|              | >EC21-EC35 Aromatics                     | 28000                    | <1.4       | <1.4       | -          | 38         | <7         |
|              | >EC35 - EC4U Aromatics                   |                          | <1.4       | <1.4       | -          |            | -          |
|              | Total SEC5 - EC40 Aromatics              |                          | 10.00      | - <10      | -          | -          | -          |
|              | Total Aliphatics + Aromatics (>C5 - C40) |                          | 28.94      | 24 94      | -          | + -        | _          |
| BTEX and     | Benzene                                  |                          | <0.002     |            | <10        | <0.003     | <0.003     |
| MTBE         | Toluene                                  |                          | < 0.005    | -          | <10        | < 0.003    | < 0.003    |
|              | Ethylbenzene                             |                          | < 0.002    | -          | <10        | < 0.003    | < 0.003    |
|              | Xylene (m & p)                           |                          | -          | -          | -          | < 0.005    | <0.005     |
|              | Xylene (o)                               |                          | < 0.002    | -          | -          | < 0.003    | <0.003     |
|              | Xylene Total                             |                          | -          | -          | <20        |            | -          |
| 1            | MIBE                                     |                          | < 0.005    | -          | -          | < 0.002    | <0.002     |



| Chemical | Commound                    | Redcar Remediation | F-BH104<br>15.75 | F-BH104<br>21.8 | <u>14AT7</u><br>4-4 | LWW-TP1<br>1 | LWW-TP1<br>2 |
|----------|-----------------------------|--------------------|------------------|-----------------|---------------------|--------------|--------------|
| Group    | Compound                    | Criteria - Soil    | 18/08/2022       | 18/08/2022      | 21/04/2004          | 05/12/2022   | 05/01/2023   |
|          |                             |                    | GT               | RMF             |                     |              |              |
| VOC      | Styrene                     |                    | -                | -               | -                   | < 0.003      | <0.003       |
|          | cis-1,3-dichloropropene     |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | trans-1,3-dichloropropene   |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,1,1,2-tetrachloroethane   |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,1,1-trichloroethane       |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,1,2-trichloroethane       |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,1-dichloroethane          |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,1-dichloroethene          |                    | -                | -               | -                   | < 0.006      | < 0.006      |
|          | 1,1-dichloropropene         |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,2,3-trichloropropane      |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | 1,2,4-trimethylbenzene      |                    | -                | -               | -                   | < 0.006      | < 0.006      |
|          | 1,2-dibromo-3-chloropropane |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | 1,2-dibromoethane           |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1,2-dichloroethane          |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | 1.2-dichloropropane         |                    | -                | -               | -                   | < 0.006      | < 0.006      |
|          | 1.3.5-trimethylbenzene      |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | 1 3-dichloropropane         |                    | _                | _               | _                   | <0.003       | <0.003       |
|          | 2 2-dichloropropane         |                    | _                | _               | _                   | <0.004       | <0.004       |
|          | 2-chlorotoluene             |                    | _                | _               | _                   | <0.003       | <0.003       |
|          | 4-chlorotoluene             |                    |                  |                 |                     | <0.003       | <0.000       |
|          | Bromobenzene                |                    |                  |                 |                     | <0.000       | <0.000       |
|          | Bromochloromethane          |                    |                  |                 |                     | <0.002       | <0.002       |
|          | Bromodichloromethane        |                    |                  |                 |                     | <0.003       | <0.003       |
|          | Bromoform                   |                    | -                | -               | -                   | <0.003       | <0.003       |
|          | Carbon tetraphlarida        |                    |                  | -               | -                   | <0.003       | <0.003       |
|          | Chloradibromomothana        |                    | -                | -               | -                   | <0.004       | <0.004       |
|          | Chloroformethane            |                    | -                | -               | -                   | <0.003       | < 0.003      |
|          | chioroiorm                  |                    | -                | -               | -                   | <0.003       | < 0.003      |
|          | cis-1,2-dichloroethene      |                    | -                | -               | -                   | <0.003       | < 0.003      |
|          | Dibromomethane              |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | Isopropylbenzene            |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | n-butylbenzene              |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | n-propylbenzene             |                    | -                | -               | -                   | < 0.004      | <0.004       |
|          | p-isopropyltoluene          |                    | -                | -               | -                   | < 0.004      | <0.004       |
|          | sec-butylbenzene            |                    | -                | -               | -                   | <0.004       | <0.004       |
|          | Trichloroethene             |                    | -                | -               | -                   | < 0.003      | <0.003       |
|          | tert-butylbenzene           |                    | -                | -               | -                   | < 0.005      | <0.005       |
|          | Tetrachloroethene           |                    | -                | -               | -                   | < 0.003      | <0.003       |
|          | trans-1,2-dichloroethene    |                    | -                | -               | -                   | < 0.003      | <0.003       |
|          | Vinyl chloride              |                    | -                | -               | -                   | < 0.002      | < 0.002      |
|          | tert-Amyl methyl ether      |                    | <0.005           | -               | -                   |              | -            |
| VOC/SVOC | 1,2,3-trichlorobenzene      |                    | -                | -               | -                   | < 0.007      | < 0.007      |
|          | 1,2,4-trichlorobenzene      |                    | -                | -               | -                   | < 0.007      | < 0.007      |
|          | 1,2-dichlorobenzene         |                    | -                | -               | -                   | < 0.004      | <0.004       |
|          | 1,3-dichlorobenzene         |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | 1,4-dichlorobenzene         |                    | -                | -               | -                   | < 0.004      | < 0.004      |
|          | Chlorobenzene               |                    | -                | -               | -                   | < 0.003      | < 0.003      |
|          | Hexachlorobutadiene         |                    | -                | -               | -                   | < 0.004      | < 0.004      |



|          |                              |                    | F-BH104    | F-BH104    | 14AT7      | LWW-TP1    | LWW-TP1    |
|----------|------------------------------|--------------------|------------|------------|------------|------------|------------|
| Chemical | 0 - mar - mark               | Redcar Remediation | 15.75      | 21.8       | 4-4        | 1          | 2          |
| Group    | Compound                     | Criteria - Soil    | 18/08/2022 | 18/08/2022 | 21/04/2004 | 05/12/2022 | 05/01/2023 |
|          |                              |                    | GT         | RMF        |            |            |            |
| SVOC     | 1,4-dinitrobenzene           |                    | -          | -          | -          | -          | -          |
|          | Benzyl alcohol               |                    | -          | -          | -          | -          | -          |
|          | 4-bromophenyl phenyl ether   |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 4-nitroaniline               |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 4-nitrophenol                |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 1,2-Dinitrobenzene           |                    | -          | -          | -          | -          | -          |
|          | 1,3-Dinitrobenzene           |                    | -          | -          | -          | -          | -          |
|          | 2,3,4,6-tetrachlorophenol    |                    | -          | -          | -          | -          | -          |
|          | 2,3,5,6-Tetrachlorophenol    |                    | -          | -          | -          | -          | -          |
|          | 2,4,5-trichlorophenol        |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2,4,6-trichlorophenol        |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2,4-dichlorophenol           |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2,4-dimethylphenol           |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2,4-dinitrotoluene           |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2,6-dichlorophenol           |                    | -          | -          | -          | -          | -          |
|          | 2,6-Dimethylphenol           |                    | -          | -          | -          | -          | -          |
|          | 2,6-dinitrotoluene           |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2-chloronaphthalene          |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2-chlorophenol               |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2-methylnaphthalene          |                    | -          | -          | -          | 0.04       | < 0.01     |
|          | 2-methylphenol               |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 2-nitroaniline               |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 3-nitroaniline               |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 4,6-Dinitro-2-methylphenol   |                    | -          | -          | -          | -          | -          |
|          | 4-chlorophenyl phenyl ether  |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | 4-methylphenol               |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | Azobenzene                   |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | Bis(2-chloroethoxy) methane  |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | Bis(2-chloroisopropyl) ether |                    | -          | -          | -          | -          | -          |
|          | Bis(2-ethylhexyl) phthalate  |                    | -          | -          | -          | <0.1       | < 0.1      |
|          | Butyl benzyl phthalate       |                    | -          | -          | -          | <0.1       | < 0.1      |
|          | Carbazole                    |                    | -          | -          | -          | 0.03       | < 0.01     |
|          | Dibenzofuran                 |                    | -          | -          | -          | 0.05       | 0.01       |
|          | Diethylphthalate             |                    | -          | -          | -          | < 0.1      | < 0.1      |
|          | Dimethyl phthalate           |                    | -          | -          | -          | <0.1       | <0.1       |
|          | Di-n-butyl phthalate         |                    | -          | -          | -          | < 0.1      | < 0.1      |
|          | Di-n-octyl phthalate         |                    | -          | -          | -          | < 0.1      | < 0.1      |
|          | Diphenylamine                |                    | -          | -          | -          | -          | -          |
|          | Hexachlorobenzene            |                    | -          | -          | -          | <0.01      | < 0.01     |
|          | Hexachlorocyclopentadiene    |                    | -          | -          | -          | < 0.01     | < 0.01     |
|          | Pentachlorophenol            |                    | -          | -          | -          | < 0.01     | < 0.01     |



| Chamical  |   | Redeer Demodiation | F-BH104 | F-BH104               | 14AT7                    | LWW-TP1    | LWW-TP1         |
|-----------|---|--------------------|---------|-----------------------|--------------------------|------------|-----------------|
| Group     | Compound                                      | Criteria - Soil    | 15.75   | <u></u><br>18/08/2022 | <u>4-4</u><br>21/04/2004 | 05/12/2022 | ∠<br>05/01/2023 |
|           |   |                    | GT      | RMF                   |                          |            |                 |
| РСВ       | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB 189) |                    | -       | -                     | -                        | -          | -               |
|           | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156)    |                    | -       | -                     | -                        | -          | -               |
|           | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)    |                    | -       | -                     | -                        | -          | -               |
|           | Hexachlorobiphenyl, 3,3,4,4,5,5- (PCB 169)    |                    | -       | -                     | -                        | -          | -               |
|           | PCB 101                                       |                    | -       | -                     | -                        | -          | -               |
|           | PCB 118                                       |                    | -       | -                     | -                        | -          | -               |
|           | PCB 138                                       |                    | -       | -                     | -                        | -          | -               |
|           | PCB 153                                       |                    | -       | -                     | -                        | -          | -               |
|           | PCB 180                                       |                    | -       | -                     | -                        | -          | -               |
|           | PCB 28 + PCB 31                               |                    | -       | -                     | -                        | -          | -               |
|           | PCB 52  |                    | -       | -                     | -                        | -          | -               |
|           | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)     |                    | -       | -                     | -                        | -          | -               |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)     |                    | -       | -                     | -                        | -          | -               |
|           | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 123)     |                    | -       | -                     | -                        | -          | -               |
|           | Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126)     |                    | -       | -                     | -                        | -          | -               |
|           | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)        |                    | -       | -                     | -                        | -          | -               |
|           | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)        |                    | -       | -                     | -                        | -          | -               |
|           | Total PCB 7 Congeners                         |                    | -       | -                     | -                        | -          | -               |
| Phenolics | 3-&4-methylphenol                             |                    | -       | -                     | -                        | -          | -               |
|           | Phenol  |                    | < 0.3   | 0.6                   | <0.5                     | < 0.01     | < 0.01          |
| SVOC TIC  | Aniline                                       |                    | -       | -                     | -                        | -          | -               |
| NA        | 4-chloro-2-methylphenol                       |                    | -       | -                     | -                        | -          | -               |
| Notos     |   |                    |         |                       |                          | -          |                 |

Notes

Exceeds - Adopted Scre



# **Appendix I**

# Comparison of Measured Concentrations of Contaminants of Concern in Soil Leachate with GAC

| Appendix I: Co | omparison of Measured Concentrations of    | CoC in Leachate wit                          | th GAC (µg/L)                     | l a settion                             |                        |                        |                |                |                          |                |                   | Worksho                   | n/Stores                   |                |                |                         |                          |                         |                         |                          |                            |
|----------------|--|--|-----------------------------------|---|------------------------|------------------------|----------------|----------------|--------------------------|----------------|-------------------|---------------------------|----------------------------|----------------|----------------|-------------------------|--------------------------|-------------------------|-------------------------|--------------------------|----------------------------|
| Chemical Grou  | Compound                                   | Redcar - Adopted<br>Saline EQS               | UK Drinking Water<br>Standards    | Location Location ID Sample Depth Range | F-BH114<br>0.5         | F-BH114<br>1.8         | F-BH114<br>3.8 | F-BH115<br>4.3 | F-BH116<br>4.9           | F-TP115<br>2.3 | F-TP115<br>0.3    | Worksho<br>F-TP115<br>2.3 | p/Stores<br>F-TP116<br>1.5 | F-TP116<br>1.5 | F-TP116<br>3.1 | F-TP116<br>3.1          | F-TP116<br>4.1           | F-TP117<br>1.5          | F-BH120<br>3.5          | F-BH120<br>5.5           | F-TP112 F-TP112<br>2       |
| Metals         | Aluminium<br>Arsenic                       | 25   | 200                               | Sampled Date                            | 16/09/2022<br>-<br>3 3 | 16/09/2022<br>280<br>2 | 16/09/2022     | 25/08/2022     | 02/09/2022<br>130<br>7.8 | 27/09/2022     | 27/09/2022<br>570 | 27/09/2022<br>670<br>3.6  | 07/10/2022<br>130<br>9.6   | -              | -              | 07/10/2022<br>98<br>3.2 | 07/10/2022<br>100<br>3.2 | 27/09/2022<br>51<br>5.7 | 02/08/2022<br>18<br>1 9 | 02/08/2022<br>350<br>5.8 | 26/09/2022<br>840 -<br>2.3 |
|                | Beryllium                                  |  |                                   | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | <0.1              | <0.1                      | < 0.1                      | -              | -              | < 0.1                   | < 0.1                    | <0.1                    | <0.1                    | <0.1                     | <0.1 -                     |
|                | Boron                                      | 7000   | 1000                              | µg/L                                    | 170                    | 64                     | 120            | 46             | 21                       | -              | 29                | 46                        | 330                        | -              | -              | 110                     | 45                       | 81                      | 34                      | <12                      | - 20                       |
|                | Cadmium                                    | 0.2  | 5                                 | µg/L                                    | <0.03                  | < 0.03                 | < 0.03         | <0.03          | 0.05                     | -              | < 0.03            | < 0.03                    | < 0.03                     | -              | -              | < 0.03                  | < 0.03                   | < 0.03                  | < 0.03                  | <0.03                    | <0.03 -                    |
|                | Chromium (nexavalent)                      | 0.0  |                                   | µg/L                                    | <1                     | 11                     | 17             | <1             | <1                       | <2             | <1                | <1                        | 61                         | ~_             | <              | 18                      | <1                       | 20                      | <1                      | <1                       | <1 20                      |
|                | Copper                                     | 3.76   | 2000                              | µg/L                                    | 11                     | 5                      | 2.8            | 2.9            | 3.5                      | -              | 2.3               | 2.6                       | 1.9                        | -              | -              | 1.4                     | 2.6                      | 2.2                     | 6.2                     | 4.6                      | 2.5 -                      |
|                | Iron                                       | 1000   | 200                               | µq/L                                    | <5.5                   | <5.5                   | <5.5           | 6.8            | 350                      | -              | 9.9               | 14                        | 7.7                        | -              | -              | <5.5                    | <5.5                     | <5.5                    | <5.5                    | 47                       | - 16                       |
|                | Lead                                       | 1.3  | 10                                | µq/L                                    | 25                     | 24                     | 20             | 1.9            | 5.7                      | -              | 0.53              | 1.3                       | 0.78                       | -              | -              | 0.22                    | 0.17                     | 6.7                     | 1.3                     | 3.8                      | 3.1 -                      |
|                | Manganese                                  | 0.07   | 1                                 | ua/L                                    | 0.02                   | 0.07                   | 0.03           | 0.01           | 0.01                     | -              | 0.02              | 0.08                      | 0.04                       | -              | -              | 0.02                    | 0.02                     | < 0.01                  | 0.04                    | 0.01                     | 0.04 -                     |
|                | Molybdenum                                 |  | 70                                | µg/L                                    | -                      | 5.8                    | -              | -              | 3.7                      | -              | <1.1              | 1.4                       | 17                         | -              | -              | 3.7                     | 1.9                      | 1.2                     | 3.9                     | 16                       | 1.1 -                      |
|                | Nickel                                     | 8.6  | 20                                | µg/L                                    | < 0.5                  | < 0.5                  | < 0.5          | < 0.5          | <0.5                     | -              | < 0.5             | < 0.5                     | < 0.5                      | -              | -              | < 0.5                   | < 0.5                    | < 0.5                   | < 0.5                   | < 0.5                    | <0.5 -                     |
|                | Tin  |  | 10                                | µg/L                                    | 1.3                    | 1.4                    | 9.1            | 2.3            | 1.2                      | -              | <0.4              | <0.4                      | 3.3                        | -              | -              | 1.6<br><0.4             | 1.1                      | 0.97<br><0.4            | <b>14</b>               | 2.4                      | <0.26 -                    |
|                | Vanadium                                   | 100  |                                   | µg/L                                    | -                      | 45                     | -              | -              | 4.6                      | -              | 36                | 89                        | 27                         | -              | -              | 24                      | 9.7                      | 120                     | 18                      | 16                       | 21 -                       |
|                | Zinc                                       | 7.9  | 3000                              | µg/L                                    | <1.3                   | <1.3                   | <1.3           | 2.1            | 4.7                      | -              | 2.2               | 2.9                       | <1.3                       | -              | -              | <1.3                    | <1.3                     | <1.3                    | <1.3                    | 1.3                      | 3.8 -                      |
| Inorganics     | Ammoniacal N as NH4                        | 0.001  |                                   | mg/L                                    | 0.08                   | 0.11                   | < 0.02         | 0.03           | 1.4                      | -              | 0.06              | 0.06                      | < 0.02                     | -              | -              | < 0.02                  | < 0.02                   | 0.06                    | 0.94                    | 0.11                     | 0.04 -                     |
|                | Ammoniacal Nitrogen as NH3                 | 0.021  |                                   | mg/L<br>mg/l                            | 0.064                  | 0.087                  | <0.015         | 0.022          | 1.1                      | -              | 0.047             | 0.05                      | <0.015                     | -              | -              | <0.015                  | <0.015                   | 0.043                   | 0.73                    | 0.084                    | 0.033 -                    |
|                | Calcium Carbonate                          |  |                                   | µg/L                                    | 516,000                | 357,000                | 136,000        | 44,900         | 23,500                   | -              | 57,600            | 82,400                    | 318,000                    | -              | -              | 173,000                 | 101,000                  | 79,700                  | 99,300                  | 32,700                   | 78,800 -                   |
|                | Chloride                                   |  | 250                               | mg/L                                    | -                      | 13                     | -              | -              | 9.1                      | -              | 12                | 2.4                       | 55                         | -              | -              | 22                      | 8.7                      | 38                      | 3.1                     | 3.4                      | 4.1 -                      |
|                | Cyanide (Free)                             | 4  | 50                                | µg/L                                    | <0.1                   | <0.1                   | <0.1           | 0.3            | <0.1                     | -              | <0.1              | <0.1                      | <0.1                       | -              | -              | <0.1                    | <0.1                     | <0.1                    | <0.1                    | <0.1                     | <0.1 -                     |
|                | Eluoride                                   | 1  | 1500                              | µg/L<br>µg/l                            | 1.8                    | <100                   | 0.2            | 5.9            | 160                      | -              | 110               | 200                       | 200                        | -              | -              | 1500                    | 760                      | <100                    | 360                     | <100                     | 430 -                      |
|                | Nitrate (as NO3-)                          |  | 50(NO3)                           | mg/L                                    | <0.1                   | 0.99                   | <0.1           | 1              | 0.21                     | -              | 0.4               | 0.35                      | 0.41                       | -              | -              | 2                       | 1.3                      | 3.4                     | 0.18                    | 0.16                     | 2.3 -                      |
|                | Nitrite (as NO2-)                          |  | 0.5(NO2)                          | mg/L                                    | 0.48                   | <0.1                   | <0.1           | 0.53           | <0.1                     | -              | 0.14              | <0.1                      | 0.47                       | -              | -              | < 0.1                   | 0.2                      | 0.35                    | <0.1                    | <0.1                     | 2 -                        |
|                | Phosphorus                                 |  |                                   | pH Units                                | 9.4                    | 9.5                    | 10.6           | 8              | 1.3                      | -              | <b>8.4</b>        | 9.7                       | 250                        | -              | -              | 8.7                     | 8.1                      | 9                       | 10.1                    | <u>8.9</u><br>51         | 10.8 -<br>22 -             |
|                | Sulphate as SO4                            |  |                                   | mg/L                                    | 560                    | 310                    | 22             | 55             | 14                       | -              | 40                | 31                        | 63                         | -              | -              | 22                      | 12                       | 82                      | 52                      | 11                       | 22 -                       |
|                | Thiocvanate (as SCN)                       | 9  |                                   | ua/L                                    | 150                    | 30                     | <20            | <20            | 280                      | -              | 27                | 28                        | 51                         | -              | -              | <20                     | <20                      | <20                     | 160                     | 230                      | <20 -                      |
|                | Orthophosphate as P                        |  |                                   | µg/L                                    | -                      | <10                    | -              | -              | 50                       | -              | 30                | 30                        | 40                         | -              | -              | <10                     | <10                      | 90                      | 20                      | 50                       | <10 -                      |
| PAH            | PAH (total, NSW Waste 2008)                | 2  |                                   | µg/L                                    | 0.39                   | 0.34                   | < 0.2          | 0.28           | <0.2                     | -              | 1.1               | 0.71                      | 0.29                       | -              | -              | 0.35                    | 0.24                     | 0.28                    | < 0.2                   | 0.26                     | <0.2 -                     |
|                | Acenaphthene                               | 2  |                                   | ug/L                                    | <0.01                  | 0.02                   | <0.01          | <0.03          | <0.01                    | -              | 0.07              | 0.08                      | 0.09                       |                | -              | 0.05                    | 0.04                     | 0.02                    | 0.08                    | 0.12                     | <0.01 -                    |
|                | Fluoranthene                               | 0.0063                                       |                                   | µg/L                                    | 0.06                   | 0.06                   | < 0.01         | 0.06           | 0.01                     | -              | 0.1               | 0.06                      | 0.05                       | -              | -              | 0.03                    | 0.02                     | 0.02                    | < 0.01                  | 0.01                     | 0.03 -                     |
|                | Anthracene                                 | 0.1  |                                   | µg/L                                    | 0.03                   | 0.01                   | < 0.01         | <0.01          | < 0.01                   | -              | 0.04              | 0.06                      | 0.02                       | -              | -              | 0.01                    | < 0.01                   | 0.04                    | < 0.01                  | <0.01                    | 0.01 -                     |
|                | Phenanthrene                               |  |                                   | µg/L                                    | 0.1<br><0.01           | <0.03                  | <0.01          | <0.01          | <0.02                    | -              | 0.17              | 0.14                      | <0.04                      | -              | -              | 0.05                    | 0.02                     | 0.12                    | <0.02                   | 0.02                     | <0.02 -                    |
|                | Chrysene                                   |  |                                   | µg/L                                    | 0.02                   | 0.03                   | < 0.01         | 0.03           | < 0.01                   | -              | 0.07              | 0.04                      | 0.02                       | -              | -              | 0.01                    | < 0.01                   | <0.01                   | < 0.01                  | <0.01                    | <0.01 -                    |
|                | Pyrene                                     |  |                                   | µg/L                                    | 0.04                   | 0.05                   | < 0.01         | 0.03           | < 0.01                   | -              | 0.13              | 0.08                      | 0.04                       | -              | -              | 0.02                    | 0.02                     | 0.02                    | < 0.01                  | 0.01                     | 0.02                       |
|                | Benzo(a)anthracene                         |  | 0.025                             | µg/L                                    | 0.02                   | 0.03                   | <0.01          | 0.03           | <0.01                    | -              | 0.06              | 0.04                      | 0.02                       | -              | -              | 0.01                    | <0.01                    | <0.01                   | < 0.01                  | <0.01                    | <0.01 -                    |
|                | Benzo(k)fluoranthene                       |  | 0.025                             | µg/L                                    | 0.02                   | 0.04                   | <0.01          | 0.03           | <0.01                    | -              | 0.04              | 0.02                      | <0.01                      | -              | -              | < 0.01                  | <0.01                    | <0.01                   | < 0.01                  | <0.01                    | <0.01 -                    |
|                | Benzo(a)pyrene                             | 0.00017                                      | 0.01                              | µg/L                                    | 0.01                   | 0.02                   | < 0.01         | 0.02           | < 0.01                   | -              | 0.06              | 0.03                      | < 0.01                     | -              | -              | < 0.01                  | < 0.01                   | < 0.01                  | < 0.01                  | < 0.01                   | <0.01 -                    |
|                | Dibenz(a,h)anthracene                      |  | 0.025                             | µg/L                                    | < 0.01                 | < 0.01                 | <0.01          | <0.01          | <0.01                    | -              | <0.01             | < 0.01                    | <0.01                      | -              | -              | < 0.01                  | < 0.01                   | < 0.01                  | < 0.01                  | <0.01                    | <0.01 -                    |
|                | Indeno(1.2.3-c.d)pyrene                    |  | 0.025                             | ug/L                                    | <0.01                  | 0.02                   | <0.01          | 0.02           | <0.01                    | -              | 0.05              | 0.03                      | <0.01                      | -              | -              | < 0.01                  | <0.01                    | <0.01                   | < 0.01                  | <0.01                    | <0.01 -                    |
| TPH CWG        | >C5-C6 Aliphatics                          |  |                                   | µq/l                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | 19                      | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | >C6-C8 Aliphatics                          | 4.55   | See TPH                           | µg/L                                    | -                      | <0.1                   | -              | -              | 20                       | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | >C10-C12 Aliphatics                        | 4.55   | See TPH                           | µg/L<br>µa/L                            | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          |                | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | >C12-C16 Aliphatics                        | 4.55   | See TPH                           | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | >C16-C21 Aliphatics                        |  | See TPH                           | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | Total >C5-C35 Aliphatics                   |  | See TPH                           | µg/L<br>µg/l                            | -                      | <10                    | -              | -              | 20                       | -              | -                 | -                         | -                          | -              | -              | 19                      | -                        | -                       | -                       | -                        | <10 -                      |
|                | >EC5-EC7 Aromatics                         |  | See TPH                           | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | >EC7-EC8 Aromatics                         |  | See TPH                           | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | < 0.1                   | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | >EC8-EC10 Aromatics                        | 4.55   | See TPH                           | µg/L<br>µg/l                            | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | >EC12-EC16 Aromatics                       | 4.55   | See TPH                           | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | >EC16-EC21 Aromatics                       | 4.55   | See TPH                           | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | >EC21-EC35 Aromatics                       | 4.55   | See TPH                           | µq/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | TPH >C5-C35 Aliphatics/Aromatics           |  | 10                                | µg/L                                    | -                      | <10                    | -              | -              | 21                       | -              | -                 | -                         | -                          | -              | -              | 19                      | -                        | -                       | -                       | -                        | <10 -                      |
| BTEX and       | Benzene                                    | 8  | 1                                 | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
| MTBE           | Touene<br>Ethylbenzene                     | 20   | 700                               | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
|                | Xylene Total                               | 30   | 500                               | µg/L                                    | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
| SVOC           | 2,4,6-trichlorophenol                      |  |                                   | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | 2.4-dicnioropnenol                         |  |                                   | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | 2,6-dichlorophenol                         |  |                                   | µg/L                                    | _                      | <0.1                   | -              | -              | <0.1                     | -              | -                 |                           | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
|                | 2.6-Dimethylphenol                         |  |                                   | µq/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
| PCP            | 4-methylphenol                             |  |                                   | µq/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
| FUB            | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 156) |  |                                   | µq/L<br>µq/L                            | -                      | <0.3                   | -              | -              | <0.3                     | -              | -                 | -                         | -                          | -              | -              | < 0.3                   | -                        | -                       | -                       | -                        | <0.3 -                     |
|                | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 157) |  |                                   | µg/L                                    | -                      | <0.2                   | -              | -              | <0.2                     | -              | -                 | -                         | -                          | -              | -              | <0.2                    | -                        | -                       | -                       | -                        | <0.2 -                     |
|                | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167) |  |                                   | µg/L                                    | -                      | < 0.3                  | -              | -              | <0.3                     | -              | -                 | -                         | -                          | -              | -              | < 0.3                   | -                        | -                       | -                       | -                        | <0.3 -                     |
|                | PCB 101                                    |  |                                   | ug/L                                    | -                      | <0.2                   | -              | -              | <0.2                     | -              | -                 | -                         | -                          |                | -              | <0.2                    | -                        | -                       | -                       | -                        | <0.3 -                     |
|                | PCB 138                                    |  |                                   | µg/L                                    | -                      | <0.2                   | -              | -              | <0.2                     | -              | -                 | -                         | -                          | -              | -              | <0.2                    | -                        | -                       | -                       | -                        | <0.2 -                     |
|                | PCB 118 + PCB 123                          |  |                                   | mg/L                                    | -                      | < 0.0006               | -              | -              | < 0.0006                 | -              | -                 | -                         | -                          | -              | -              | < 0.0006                | -                        | -                       | -                       | -                        | < 0.0006 -                 |
|                | PCB 180                                    |  |                                   | µg/L<br>µa/l                            | -                      | <0.2                   | -              | -              | <0.2                     | -              | -                 | -                         | -                          | -              | -              | <0.2                    | -                        | -                       | -                       | -                        | <0.2 -                     |
|                | PCB 52                                     |  |                                   | µg/L                                    | -                      | <0.2                   | -              | -              | <0.2                     | -              | -                 | -                         | -                          | -              | -              | <0.2                    | -                        | -                       | -                       | -                        | <0.2 -                     |
|                | PCB 28 + PCB 31                            |  |                                   | mg/L                                    | -                      | < 0.0003               | -              | -              | < 0.0003                 | -              | -                 | -                         | -                          | -              | -              | < 0.0003                | -                        | -                       | -                       | -                        | < 0.0003 -                 |
|                | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)  |  |                                   | µq/L                                    | -                      | <0.2                   | -              | -              | <0.2                     | -              | -                 | -                         | -                          | -              | -              | <0.2                    | -                        | -                       | -                       | -                        | <0.2 -                     |
|                | Pentachlorobiphenyl. 3.3.4.4.5- (PCB 114)  |  |                                   | ua/L                                    | -                      | <0.5                   | -              | -              | <0.5                     | -              | -                 | -                         | -                          | -              | -              | <0.5                    | -                        | -                       | -                       | -                        | <0.5 -                     |
|                | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)     |  |                                   | µg/L                                    | -                      | <0.3                   | -              | -              | <0.3                     | -              | -                 | -                         | -                          | -              | -              | <0.3                    | -                        | -                       | -                       | -                        | <0.3 -                     |
|                | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)     |  |                                   | µg/L                                    | -                      | < 0.2                  | -              | -              | < 0.2                    | -              | -                 | -                         | -                          | -              | -              | < 0.2                   | -                        | -                       | -                       | -                        | < 0.2 -                    |
|                | Total PCB WHO 12                           |  |                                   | µg/L<br>µa/L                            | -                      | <1                     | -              | -              | <1                       | -              | -                 | -                         | -                          | -              | -              | <1                      | -                        | -                       | -                       | -                        | <1 -                       |
| Phenolics      | Phenol                                     | 7.7  | 5800                              | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 |                           | -                          |                | -              | <0.1                    | -                        |                         | -                       | -                        | <0.1 -                     |
| NA             | 4-chloro-2-methylphenol                    |  |                                   | µg/L                                    | -                      | <0.1                   | -              | -              | <0.1                     | -              | -                 | -                         | -                          | -              | -              | <0.1                    | -                        | -                       | -                       | -                        | <0.1 -                     |
| Other<br>Notes | Total Organic Carbon                       |  |                                   | mg/l                                    | 11                     | 6.2                    | 5.6            | 2.4            | 4.8                      | -              | 3.9               | 4.3                       | 6.2                        | -              | -              | 3                       | 2.2                      | 3.4                     | 2.9                     | 3.1                      | 43 -                       |
| 140185         |  | Exceeds - Adopted Sa<br>Exceeds - Adopted Sa | aline EQS and the U<br>aline EQS. | K Drinking Water Standar                | rd.                    |                        |                |                |                          |                |                   |                           |                            |                |                |                         |                          |                         |                         |                          |                            |



| Appendix I: Co | mparison of Measured Concentrations of   | f CoC in Leachate wi                       | th GAC (ua/L)         |                    |                  |                   |                   |            |                   |                   |                   |                   |                   |                   |                  |            |               |                           |                   |                    |                    |
|----------------|--|--|-----------------------|--------------------|------------------|-------------------|-------------------|------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|------------------|------------|---------------|---------------------------|-------------------|--------------------|--------------------|
|                |  | Redcar - Adopted                           | UK Drinking Water     | F-BH119            | Blast<br>F-BH124 | F-BH125           | house<br>F-BH125  | F-BH128    | F-TP113           | F-TP114           | I WW-TP5          | I WW-TP5          | I WW-TP5          | F-TP120           | F-TP121          | F-TP121    | Residual Form | er Redcar Work<br>F-BH102 | S<br>F-BH104      | I WW-TP1           | I WW-TP1           |
| Chemical Group | Compound   | Saline EQS                                 | Standards             | 2.9                | 3.8              | 4.8               | 5.3               | 3.9        | 2.5               | 1                 | 2                 | 4                 | 1                 | 0.5               | 0.8              | 0.8        | 1             | 1                         | 4                 | 1                  | 2                  |
| Metals         | Aluminium  |  | 200                   | 09/08/2022<br>1200 | 01/08/2022       | 04/08/2022<br>760 | 04/08/2022<br>610 | 28/07/2022 | 23/09/2022<br>450 | 22/09/2022<br>630 | 06/12/2022<br>206 | 06/12/2022<br>118 | 06/12/2022<br><20 | 06/10/2022<br>370 | 06/10/2022<br>21 | 10/06/2022 | 09/09/2022    | 09/09/2022<br>850         | <b>17/08/2022</b> | 05/12/2022<br>1275 | 05/01/2023<br>1020 |
|                | Arsenic  | 25   | 10                    | 0.65               | 0.91             | 53                | 11                | 0.76       | 2.8               | 1.8               | 3.3               | 2.9               | 5.5               | 0.86              | 0.18             | -          | -             | 0.44                      | <0.16             | <2.5               | <2.5               |
|                | Boron  | 7000                                       | 1000                  | <12                | <12              | 34                | <12               | 15         | 17                | 34                | 157               | 121               | 72                | <0.1              | 27               | -          | -             | <0.1                      | <12               | <12                | <12                |
|                | Cadmium  | 0.2  | 5                     | 0.06               | < 0.03           | < 0.03            | < 0.03            | < 0.03     | < 0.03            | <0.03             | < 0.5             | < 0.5             | < 0.5             | 0.14              | < 0.03           |            | -             | < 0.03                    | < 0.03            | <0.5               | < 0.5              |
|                | Chromium (Trivalent)   | 0.0  |                       | 6.6                | 2                | <1                | <1                | 3.4        | <1                | 4.2               | -                 | -                 | -                 | 41                | <1               | -          | -             | <1                        | <1                | -                  | - 52               |
|                | Copper   | 3.76                                       | 2000                  | 15                 | 5.4              | 5                 | 2.1               | 4          | 5.8               | 2.6               | <7                | <7                | <7                | 6.2               | 1.6              | -          | -             | 4.8                       | <0.4              | 19                 | 13                 |
|                | Lead   | 1.3  | 10                    | 15                 | 0.68             | 4.6               | 1.6               | 0.82       | 3.8               | 0.89              | <4.7              | <5                | <4.7              | 7.5               | 0.11             | -          | -             | 6.3                       | <0.09             | 7                  | <4.7               |
|                | Manganese  | 0.07                                       | 50                    | 0.26               | - 0.09           | 0.75              | 0.28              | 0.27       | 7.4               | 0.35              | <2                | <2                | <2                | 1.3               | 2.5              | -          | -             | 1.1                       | <0.22             | <2                 | <2                 |
|                | Molybdenum   | 0.07                                       | 70                    | 2.3                | -                | 6.8               | 3.6               | -          | <1.1              | 1.2               | <2                | 4                 | 3                 | 310               | 1.7              | -          | -             | 4.7                       | <1.1              | 5                  | 7                  |
|                | Nickel   | 8.6  | 20                    | < 0.5              | < 0.5            | 2.5               | 1.4               | 0.6        | 0.6               | < 0.5             | <2                | <2                | <2                | <0.5              | < 0.5            | -          | -             | < 0.5                     | < 0.5             | <2                 | <2                 |
|                | Tin  |  | 10                    | <0.4               | -                | <0.4              | <0.4              | - 0.74     | <0.4              | <0.4              | -                 | -                 | -                 | <0.4              | <0.4             | -          | -             | <0.4                      | <0.25             | -                  |                    |
|                | Vanadium   | 100  | 0000                  | 7.1                | -                | 52                | 12                | -          | 14                | 48                | 239               | 62.6              | 64.7              | 2.5               | < 0.6            | -          | -             | 19                        | <0.6              | 3.4                | 5.1                |
| Inorganics     | Zinc<br>Ammoniacal N as NH4  | 7.9  | 3000                  | 0.03               | 0.26             | 0.14              | <1.3<br>0.23      | 0.03       | 0.19              | 0.12              | <3                | <3                | <3                | 9.5               | <1.3             | -          | -             | 3.5<br>0.3                | 0.03              | -                  | <3                 |
|                | Ammoniacal Nitrogen as N   | 0.021                                      |                       | 0.025              | 0.2              | 0.11              | 0.18              | 0.024      | 0.14              | 0.095             | < 0.03            | < 0.03            | < 0.03            | < 0.015           | < 0.015          | -          | -             | 0.24                      | 0.024             | 0.12               | 0.04               |
|                | Ammoniacal Nitrogen as NH3   |  |                       | 0.03               | 0.24             | 0.13              | 0.22              | 0.029      | 0.18              | 0.12              | -                 | -                 | -                 | <0.015            | <0.015           | -          | -             | 0.29                      | 0.029<br><100     | -                  | -                  |
|                | Chloride   |  | 250                   | 5.2                | -                | 1.8               | 2.8               | -          | 4.4               | 40,100            | 1.1               | 3.9               | 1.3               | 10                | 3.5              | -          | _             | 1.4                       | 3.8               | 3.7                | 4.3                |
|                | Cyanide (Free)   | 1  | 50                    | 0.8                | <0.1             | <0.1              | <0.1              | <0.1       | <0.1              | <0.1              | <1                | <1                | <1                | <0.1              | <0.1             | -          | -             | 0.2                       | 2.1               | <1                 | <1                 |
|                | Fluoride   | 1  | 1500                  | 1200               |                  | 160               | 180               | -          | 440               | 470               | -                 | -                 | -<br>-            | 620               | 1100             | -          | -             | 120                       | 690               | -                  | -                  |
|                | Nitrate (as NO3-)  |  | 50(NO3)               | 1.3                | 0.36             | < 0.1             | <0.1              | 0.93       | 0.28              | 0.51              | 2.1               | 5.2               | 0.6               | 2.3               | 0.17             | -          | -             | < 0.1                     | 1.2               | <0.2               | 1.4                |
|                | pH (aqueous extract)   |  | 0.5(1102)             | 11.8               | 10.7             | 7.8               | 8.5               | 11         | 8.7               | 9                 |                   |                   | -0.02             | 12.2              | 8.5              | -          | -             | 10.8                      | 10.9              | -                  |                    |
|                | Phosphorus   |  |                       | 47                 | -                | 600               | 170               | -          | 38                | 24                | -                 | -                 | -                 | 110               | <18              | -          | -             | 36                        | <18               | -                  | -                  |
|                | Thiocvanate (as SCN)   | 9  |                       | 2.8                | <20              | 160               | 48                | 42         | <20               | 9.4<br><20        | <20               | <20               | <20               | <20               | 25               | -          | -             | 160                       | <20               | - <20              | <20                |
|                | Orthophosphate as P  |  |                       | <10                | -                | 40                | 30                | -          | 20                | 20                | -                 | -                 | -                 | <10               | <10              | -          | -             | 20                        | 20                | -                  | -                  |
| PAH            | PAH (total, NSW Waste 2008)  | 0  |                       | 0.21               | < 0.2            | < 0.2             | < 0.2             | < 0.2      | 1.3               | < 0.2             | -                 | -                 | -                 | 0.3               | < 0.2            | -          | -             | 5.7                       | <0.2              | -                  | -                  |
|                | Acenaphthene   | 2  |                       | <0.05              | <0.05            | 0.05              | <0.05<br>0.02     | 0.05       | 0.09              | <0.09             | 0.011             | 0.049             | 0.006             | 0.08              | <0.05            | -          |               | 2.5                       | <0.05             | 0.03               | 0.033              |
|                | Fluoranthene   | 0.0063                                     |                       | 0.05               | < 0.01           | 0.02              | 0.02              | < 0.01     | 0.23              | < 0.01            | 0.178             | 1.3               | 0.194             | 0.03              | < 0.01           | -          | -             | 0.21                      | 0.02              | 0.057              | 0.104              |
|                | Phenanthrene   | 0.1  |                       | 0.02               | 0.01             | 0.02              | 0.03              | <0.01      | 0.03              | <0.01             | 0.032             | 0.628             | 0.019             | 0.04              | <0.01            | -          | -             | 0.9                       | 0.01              | 0.008              | 0.068              |
|                | Fluorene   |  |                       | < 0.01             | < 0.01           | 0.01              | 0.02              | < 0.01     | 0.01              | < 0.01            | 0.019             | 0.052             | 0.006             | < 0.01            | < 0.01           | -          | -             | 0.38                      | < 0.01            | 0.007              | 0.011              |
|                | Pyrene   |  |                       | 0.03               | <0.01            | 0.02              | 0.01              | <0.01      | 0.09              | <0.01             | 0.075             | 1.108             | 0.115             | 0.01              | <0.01            | -          |               | 0.04                      | 0.01              | 0.012              | 0.041              |
|                | Benzo(a)anthracene   |  |                       | 0.02               | <0.01            | < 0.01            | < 0.01            | < 0.01     | 0.08              | < 0.01            | 0.07              | 0.547             | 0.129             | < 0.01            | < 0.01           | -          | -             | 0.03                      | < 0.01            | 0.006              | 0.038              |
|                | Benzo(b)fluoranthene<br>Benzo(k)fluoranthene   |  | 0.025                 | <0.01              | <0.01            | <0.01             | <0.01             | <0.01      | 0.11              | <0.01             | 0.098             | 0.757             | 0.193             | <0.01             | <0.01            | -          |               | 0.04                      | <0.01             | <0.008             | 0.057              |
|                | Benzo(a)pyrene   | 0.00017                                    | 0.01                  | < 0.01             | < 0.01           | < 0.01            | < 0.01            | < 0.01     | 0.08              | < 0.01            | 0.06              | 0.488             | 0.107             | < 0.01            | < 0.01           | -          | -             | 0.03                      | < 0.01            | < 0.005            | 0.031              |
|                | Dibenz(a,h)anthracene<br>Benzo(a,h)pervlene  |  | 0.025                 | <0.01              | <0.01            | <0.01             | <0.01             | <0.01      | 0.02              | <0.01             | <0.005            | 0.039             | 0.011             | <0.01             | <0.01            | -          | -             | <0.01                     | <0.01             | <0.005             | <0.005<br>0.018    |
|                | Indeno(1,2,3-c,d)pyrene  |  | 0.025                 | < 0.01             | <0.01            | < 0.01            | <0.01             | < 0.01     | 0.08              | < 0.01            | 0.046             | 0.346             | 0.099             | < 0.01            | <0.01            | -          | -             | 0.02                      | <0.01             | < 0.005            | 0.024              |
| TPH CWG        | >C5-C6 Aliphatics<br>>C6-C8 Aliphatics   | 4 55                                       | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | - <10             | - <10             | - <10             | -                 | <0.1             | -          | -             | -                         | -                 | - <10              | - <10              |
|                | >C8-C10 Aliphatics   | 4.55                                       | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <0.1             | -          | -             | -                         | -                 | <10                | <10                |
|                | >C10-C12 Aliphatics<br>>C12-C16 Aliphatics   | 4.55                                       | See TPH<br>See TPH    | -                  | -                | -                 | -                 | -          | -                 | -                 | <5                | <5                | <5                | -                 | <1               | -          | -             | -                         | -                 | <5                 | <5                 |
|                | >C16-C21 Aliphatics  |  | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <1               | -          | -             | -                         | -                 | <10                | <10                |
|                | >C21-C35 Aliphatics<br>Total >C5-C35 Aliphatics  |  | See TPH<br>See TPH    | -                  | -                | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <1               | -          | -             | -                         | -                 | <10                | <10                |
|                | >EC5-EC7 Aromatics   |  | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <0.1             | -          | -             | -                         | -                 | <10                | <10                |
|                | >EC7-EC8 Aromatics<br>>EC8-EC10 Aromatics  | 4 55                                       | See TPH               |                    | -                | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <0.1             | -          |               | -                         | -                 | <10                | <10                |
|                | >EC10-EC12 Aromatics   | 4.55                                       | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | <5                | <5                | <5                | -                 | <1               | -          | -             | -                         | -                 | <5                 | <5                 |
|                | >EC12-EC16 Aromatics   | 4.55                                       | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <1               | -          | -             | -                         | -                 | <10                | <10                |
|                | >EC21-EC35 Aromatics   | 4.55                                       | See TPH               | -                  |                  | -                 | -                 | -          | -                 | -                 | <10               | <10               | <10               | -                 | <1               | -          | -             | -                         |                   | <10                | <10                |
|                | Total >EC5-EC35 Aromatics  |  | See TPH               | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <10              | -          | -             | -                         | -                 | -                  | -                  |
| BTEX and       | Benzene  | 8  | 1                     | -                  |                  | -                 | -                 | -          | -                 | -                 | <0.5              | <0.5              | < 0.5             | -                 | <1               | -          |               | -                         |                   | <0.5               | <0.5               |
| MTBE           | Toluene  | 74   | 700                   | -                  | -                | -                 | -                 | -          | -                 | -                 | <5                | <5                | <5                | -                 | <1               | -          | -             | -                         | -                 | <5                 | <5                 |
|                | Xylene Total   | 30   | 500                   | -                  |                  |                   | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <1               | -          |               | -                         |                   | -                  | -                  |
| SVOC           | 2,4,6-trichlorophenol  |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | <1                | <1                | <1                | -                 | <0.1             | -          |               | -                         | -                 | <1                 | <1                 |
|                | 2,4-dimethylphenol   |  |                       | -                  |                  | -                 | -                 | -          | -                 | -                 | <1                | <1                | <1                | -                 | <0.1             | -          |               | -                         | -                 | <1                 | <1                 |
|                | 2,6-dichlorophenol   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.1             | -          | -             | -                         | -                 | -                  | -                  |
|                | 4-methylphenol   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | <1                | <1                | <1                | -                 | <0.1             | -          | -             | -                         | -                 | <1                 | <1                 |
| РСВ            | Heptachlorobiphenyl, 2,3,3,4,4,5,5- (PCB   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | < 0.3            | -          | -             | -                         | -                 | -                  | -                  |
|                | Hexachlorobiphenyl, 2,3,3,4,4,5- (PCB 150)   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  | -                  |
|                | Hexachlorobiphenyl, 2,3,4,4,5,5- (PCB 167)   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | < 0.3            | -          | -             | -                         | -                 | -                  | -                  |
|                | PCB 101  | ·  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  | -                  |
|                | PCB 138  |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | < 0.2            | -          | -             | -                         | -                 | -                  | -                  |
|                | PCB 118 + PCB 123<br>PCB 153   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  |                    |
|                | PCB 180  |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  | -                  |
|                | PCB 52<br>PCB 28 + PCB 31  |  |                       |                    | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  |                    |
|                | Pentachlorobiphenyl, 2,3,3,4,4- (PCB 105)  |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  | -                  |
|                | Pentachlorobiphenyl, 2,3,4,4,5- (PCB 114)<br>Pentachlorobiphenyl, 3,3,4,4,5- (PCB 126) |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.3             | -          | -             | -                         | -                 | -                  | -                  |
|                | Tetrachlorobiphenyl, 3,3,4,4- (PCB 77)   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.3             | -          | -             | -                         | -                 | -                  | -                  |
|                | Tetrachlorobiphenyl, 3,4,4,5- (PCB 81)   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <0.2             | -          | -             | -                         | -                 | -                  | -                  |
|                | Total PCB WHO 12   |  |                       | -                  | -                | -                 | -                 | -          | -                 | -                 | -                 | -                 | -                 | -                 | <1               | -          | -             | -                         | -                 | -                  | -                  |
| Phenolics      | Phenol   | 7.7  | 5800                  | -                  | -                | -                 | -                 | -          | -                 | -                 | <1                | <1                | <1                | -                 | <0.1             | -          | -             | -                         | -                 | <1                 | <1                 |
| Other          | Total Organic Carbon   |  |                       | 5.6                | 3.6              | 3.2               | 2.2               | 3.6        | 4.6               | 1.8               | -                 | -                 | -                 | 7.3               | 4.2              | -          | -             | 6.9                       | 6.8               | -                  |                    |
| Notes          |  | Eveneda Adarta 10                          |                       |                    |                  |                   |                   |            |                   |                   |                   |                   |                   |                   |                  |            |               |                           | _                 |                    |                    |
|                |  | Exceeds - Adopted S<br>Exceeds - Adopted S | Saline EQS and the UP | <u>.</u>           |                  |                   |                   |            |                   |                   |                   |                   |                   |                   |                  |            |               |                           | -                 |                    |                    |



# **Appendix J**

# Comparison of Measured Concentrations of Contaminants of Concern in Groundwater with GAC

| Appendix J:  | Comparison of Measured Co | ncentrations of CoC | in Groundwater/Le | eachate with GAC ( | ug/L)      |            |            |                 |         |            |            |
|--------------|---------------------------|---------------------|-------------------|--------------------|------------|------------|------------|-----------------|---------|------------|------------|
|              |                           |                     |                   | Location           |            |            | Residu     | al Former Redca | r Works |            |            |
| hemical Grou | Compound                  | Redcar - Adopted    | UK Drinking       | Location ID        | F-BH102    | F-BH102    | F-BH102    | F-BH102         | F-BH102 | F-BH102    | F-BH102    |
|              | Compound                  | Saline EQS          | Water Standards   | Well               | S          | S          | D          | D               | М       | D          | S          |
|              |                           |                     |                   | Sample Date        | 05/10/2022 | 08/11/2022 | 05/10/2022 | 09/11           | /2022   | 09/01/2023 | 10/01/2023 |
| Metals       | Aluminium (Filtered)      |                     | 200               | µg/L               | -          | 156        | -          | 92.3            | 38.4    | 4.9        | 13.7       |
|              | Arsenic (Filtered)        | 25                  | 10                | µg/L               | <2.5       | 4.3        | 5          | 0 - 1.9         | 5.1     | -          | -          |
|              | Barium (Filtered)         |                     | 1300              | µg/L               | 96         | -          | 88         | -               | -       | -          | -          |
|              | Beryllium (Filtered)      |                     |                   | µg/L               | < 0.5      | -          | < 0.5      | -               | -       | 176        | 185        |
|              | Boron (Filtered)          | 7000                | 1000              | µg/L               | 70         | 219        | 287        | 0 - 168         | 339     | < 0.03     | 0.03       |
|              | Cadmium (Filtered)        | 0.2                 | 5                 | µg/L               | < 0.5      | 0.11       | < 0.5      | <0.03 - 0       | 0.07    | -          | -          |
|              | Chromium (hexavalent)     | 0.6                 |                   | µg/L               | <6         | -          | <6         | -               | -       | 6.5        | 3.2        |
|              | Chromium (Filtered)       | 0.6                 | 50                | µg/L               | 12.2       | 0.3        | 9.1        | 0 - 0.9         | 0.7     | <3         | <1         |
|              | Copper (Filtered)         | 3.76                | 2000              | µg/L               | <7         | <1         | <7         | <3 - 0          | <1      | 22.6       | 57.2       |
|              | Iron (Filtered)           | 1000                | 200               | µg/L               | -          | 31.3       | -          | 0 - 20.9        | 11.1    | <0.4       | <0.4       |
|              | Lead (Filtered)           | 1.3                 | 10                | µg/L               | <5         | <0.4       | <5         | <0.4 - 0        | <0.4    | <1.5       | 7.1        |
|              | Manganese (Filtered)      |                     | 50                | µg/L               | <2         | 1.7        | <2         | <1.5 - 0        | <1.5    | <0.1       | 0.02       |
|              | Mercury (Filtered)        | 0.07                | 1                 | µg/L               | <1         | 0.12       | <1         | 0.34            | < 0.01  | 187        | 113        |
|              | Molybdenum (Filtered)     |                     | 70                | µg/L               | -          | 208.5      | -          | 248             | 225.9   | 4.2        | 1.2        |
|              | Nickel (Filtered)         | 8.6                 | 20                | µg/L               | 3          | 2.3        | 2          | 0 - 3.9         | 1.5     | -          | -          |
|              | Selenium (Filtered)       |                     | 10                | µg/L               | 7          | -          | 9          | -               | -       | 1910       | 7640       |
|              | Silicon (Filtered)        |                     |                   | µg/L               | -          | 3232       | -          | 896             | 5219    | -          | -          |
|              | Vanadium (Filtered)       | 100                 |                   | µg/L               | <1.5       | -          | 9.6        | -               | -       | 2.3        | 3.4        |
|              | Zinc (Filtered)           | 7.9                 | 3000              | µg/L               | <3         | 3.4        | <3         | <1.5 - 0        | <1.5    | 1.72       | 0.07       |
| Inorganics   | Ammoniacal Nitrogen as N  | 0.021               |                   | mg/L               | 0.37       | 0.11       | 0.3        | 1.48            | 0.07    | 424        | 113        |
|              | Calcium (Filtered)        |                     |                   | mg/L               | -          | 404.5      | -          | 537.5           | 182.1   | 1110       | 125        |
|              | Chloride                  |                     | 250               | mg/L               | -          | 178.5      | -          | 982             | 144.8   | 64         | 141        |
|              | Cyanide (Free)            |                     | 50                | µg/L               | <10        | <100       | 10         | 8               | 33      | -          | -          |
|              | Cyanide (Total)           | 1                   | 50                | µg/L               | -          | 114        | -          | 23              | 64      | -          | -          |
|              | Cyanide (Complex)         |                     |                   | mg/l               | -          | 0.114      | -          | 0.015           | 0.031   | <0.1       | 0.4        |
|              | Magnesium (Filtered)      |                     |                   | mg/L               | -          | <0.1       | -          | <0.1            | 0.3     | < 0.2      | <0.2       |
|              | Nitrate (as NO3-)         |                     | 50(NO3)           | mg/L               | < 0.2      | <0.2       | <0.2       | < 0.2           | <0.2    | 0.08       | < 0.02     |
|              | Nitrite (as NO2-)         |                     | 0.5(NO2)          | mg/L               | < 0.02     | < 0.02     | < 0.02     | 0.12            | < 0.02  | 75         | 32.7       |
|              | Potassium (Filtered)      |                     | · · ·             | mg/L               | -          | 56.1       | -          | 88.4            | 53.7    | 802        | 92.7       |
|              | Sodium (Filtered)         |                     | 200               | mg/L               | -          | 165.3      | -          | 903.9           | 132.4   | 367        | 343        |
|              | Sulphate                  |                     | 250(SO4)          | mg/L               | -          | 633.7      | -          | 343.4           | 463.2   | 10         | 10         |
|              | Sulphide                  |                     |                   | µg/L               | -          | 760        | -          | 20              | <10     | 142        | 122        |
|              | Sulphur as S              |                     |                   | mg/L               | -          | 339.617    | -          | 113.135         | 156.417 | 60         | 40         |
|              | Thiocyanate (as SCN)      | 9                   |                   | μg/L               | 40         | 140        | 110        | 40              | 70      | <0.1       | <0.1       |



| Numical Group<br>Numical Group<br>Numical Group<br>And Status EGA         Redcar - Adopted<br>Mainer Stander<br>Descriptions         UKC Drinking<br>Waler Stander<br>Descriptions         Location ID         F-BH102         F   |              |                           |                  |                 | Location    |            |            | Residua    | al Former Redca | r Works |            |            |
|--|--------------|---------------------------|------------------|-----------------|-------------|------------|------------|------------|-----------------|---------|------------|------------|
| Number of the Composition         Satine EQS         Value Standards         S         D         D         M         D         S           PAH         Naphthalene         2         Sample Date         06/10/2022         06/11/2022         06/11/2023         06/11/20  | homical Grau | Compound                  | Redcar - Adopted | UK Drinking     | Location ID | F-BH102    | F-BH102    | F-BH102    | F-BH102         | F-BH102 | F-BH102    | F-BH102    |
| PAH         Sample Date         09/10/202         09/11/202         09/11/202         09/11/202         09/11/202         09/11/202         10/11/202         00/11/202         00/11/202         00/11/202         00/11/202         00/11/202         10/11/202         00   |              | Compound                  | Saline EQS       | Water Standards | Well        | S          | S          | D          | D               | М       | D          | S          |
| PAH         Naphthalene         2         µµQ         -0.1         -0.1         -0.1         -0.01         -0.028         0.051           Acenaphthene         0.063         µµQ         -0.005  |              |                           |                  |                 | Sample Date | 05/10/2022 | 08/11/2022 | 05/10/2022 | 09/11           | /2022   | 09/01/2023 | 10/01/2023 |
| Acamaphthysine         map         40,005         0,011         40,005         0,013         0,013         40,005         0,006         0,017         0,016         0,013         0,012         0,023         0,014         0,005         0,018         0,007         0,016         0,006         0,012         0,034         0,002         0,018         0,006         0,012         0,023         0,014         0,016         0,012         0,034         0,002         0,018         0,0017         0,018         0,012         0,034         0,002         0,018         0,012         0,034         0,012         0,034         0,012         0,034         0,002         0,018         0,018   | PAH          | Naphthalene               | 2                |                 | µg/L        | <0.1       | <0.1       | <0.1       | <0.1            | <0.1    | 0.026      | 0.051      |
| Acenaphthylene         ug/L         <0.005   |              | Acenaphthene              |                  |                 | µg/L        | < 0.005    | 0.011      | < 0.005    | 0.01            | 0.01    | < 0.005    | 0.034      |
| Fluoranthene         0.0053         μg/L         0.209         0.024         0.048         0.017         0.05         0.022         0.078           Phernanthrene         0.1         μg/L         0.048         0.018         0.005   |              | Acenaphthylene            |                  |                 | µg/L        | < 0.005    | < 0.005    | < 0.005    | < 0.005         | < 0.005 | 0.057      | 0.641      |
| Anthracene         0.1         µq/L         0.019         <0:005   |              | Fluoranthene              | 0.0063           |                 | µg/L        | 0.209      | 0.024      | 0.048      | 0.017           | 0.05    | 0.022      | 0.076      |
| Phenanthrene         µµµL         0.084         0.018         <0.005   |              | Anthracene                | 0.1              |                 | µg/L        | 0.019      | < 0.005    | < 0.005    | < 0.005         | < 0.005 | 0.123      | 0.243      |
| Fluorene         ualk          ualk  |              | Phenanthrene              |                  |                 | µg/L        | 0.084      | 0.018      | < 0.005    | < 0.005         | < 0.005 | 0.026      | 0.038      |
| Chrysene         ual         ual         0.108         0.008         <0.005  |              | Fluorene                  |                  |                 | µg/L        | < 0.005    | < 0.005    | < 0.005    | < 0.005         | 0.007   | 0.021      | 0.343      |
| Pyrene         pyr.         0.185         0.018         0.047         0.015         0.048         0.019         0.294           Benzolahitrasene         0.025         µg/L         0.078         0.006         <0.005         0.008         0.028         0.023         0.0474           Benzolahitrasene         0.025         µg/L         0.057         <0.008         <0.008         0.012         0.034         0.002         0.023         0.024         0.023         0.024         0.023         0.024         0.025         0.025         <0.008         <0.008         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.00   |              | Chrysene                  |                  |                 | µg/L        | 0.108      | 0.008      | < 0.005    | 0.01            | 0.024   | 0.053      | 0.605      |
| Benzo(a) anthracene         up(L         0.078         0.006         <0.008  |              | Pyrene                    |                  |                 | µg/L        | 0.185      | 0.018      | 0.047      | 0.015           | 0.048   | 0.019      | 0.299      |
| Benzo(h)fluoranthene         0.025         µg/L         0.067         <0.008   |              | Benzo(a)anthracene        |                  |                 | µg/L        | 0.078      | 0.006      | < 0.005    | 0.008           | 0.026   | 0.023      | 0.474      |
| Benza(k)fluoranthene         0.025         µg/L         0.057            0.013         0.012         0.233           Dibenz(a), jnintracene         µg/L         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.005         <0.007         <0.013         <0.213         <0.414         3.642           Benzo(k)+t/juoranthene          µg/L         0.205         <0.008         <0.007         <0.017         <0.473         0.238         <0.659           Co-SC-G Aliphatics         4.55         See TPH         µg/L         <0.205         <0.008         <0.008         <0.016         <0.047         <45         <22           Co-SC-G Aliphatics         4.55         See TPH         µg/L         <0.205         <0.008         <0.008         <0.016         <0.047         <45         <22         <0.62.61         <0.61         <0.61         <0.61         <0.61   |              | Benzo(b)fluoranthene      |                  | 0.025           | µg/L        | 0.148      | <0.008     | <0.008     | 0.012           | 0.034   | 0.009      | 0.185      |
| Benza (a) pyrene         0.00017         0.01         µg/L         0.013             0.005           0.005           0.005           0.016         0.016         0.016         0.013         0.014         3.642           PAH 16 Total                  0.028         0.069           0.013         0.013         0.014         45            0.626         Alphabits         4.55         See TPH         µg/L            0.017         0.45         2.2                  0.63          0.017         0.013         0.014          0.023         0.65  |              | Benzo(k)fluoranthene      |                  | 0.025           | µg/L        | 0.057      | <0.008     | <0.008     | <0.008          | 0.013   | 0.012      | 0.233      |
| Dibenz(a)hjanthracene         up/L         <0.005  |              | Benzo(a)pyrene            | 0.00017          | 0.01            | µg/L        | 0.103      | < 0.005    | < 0.005    | < 0.005         | < 0.005 | < 0.005    | 0.041      |
| Benzo(p,h)/pervleme         0.025         µg/L         0.065         <0.005  |              | Dibenz(a,h)anthracene     |                  |                 | µg/L        | < 0.005    | < 0.005    | < 0.005    | < 0.005         | < 0.005 | 0.01       | 0.166      |
| Indeno(1,2,3-c,d)pyrene         0.025         ugl_         0.069         <0.005  |              | Benzo(g,h,i)perylene      |                  | 0.025           | µg/L        | 0.065      | < 0.005    | < 0.005    | 0.006           | 0.013   | 0.013      | 0.213      |
| PAH 16 Total         vmg/L         1125         <0.173   |              | Indeno(1,2,3-c,d)pyrene   |                  | 0.025           | µg/L        | 0.069      | < 0.005    | < 0.005    | 0.007           | 0.013   | 0.414      | 3.642      |
| Benzo(b+k)fluoranthene         up(L         0.205         0.008         <0.006   |              | PAH 16 Total              |                  |                 | µg/L        | 1.125      | < 0.173    | < 0.173    | < 0.173         | 0.238   | 0.032      | 0.659      |
| TPH CWG         2C5-C6 Aliphatics         4.55         See TPH         µg/L         98         39         24         71         24         88         12           >C6-C6 Aliphatics         4.55         See TPH         µg/L         184         11         64         195         57         56         42           >C6-C10 Aliphatics         4.55         See TPH         µg/L         989         98         304         987         77         <5         <5           >C10-C12 Aliphatics         4.55         See TPH         µg/L         <5         <5         <5         <5         <5         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10  |              | Benzo(b+k)fluoranthene    |                  |                 | µg/L        | 0.205      | 0.008      | <0.008     | 0.016           | 0.047   | 45         | 22         |
| >C6C-C8 Aliphatics         4.55         See TPH         µg/L         184         11         64         195         57         564         42           >C8-C10 Aliphatics         4.55         See TPH         µg/L         989         98         304         987         77         <6         <6           >C10-C12 Aliphatics         4.55         See TPH         µg/L         <5         <5         <5         <5         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10         <10  | TPH CWG      | >C5-C6 Aliphatics         | 4.55             | See TPH         | µg/L        | 98         | 39         | 24         | 71              | 24      | 88         | 12         |
| >C26-C10 Aliphatics         4.55         See TPH         µg/L         989         98         304         987         77         <5   |              | >C6-C8 Aliphatics         | 4.55             | See TPH         | µg/L        | 184        | 11         | 64         | 195             | 57      | 564        | 42         |
| b         b         c10-C12 Aliphatics         4.55         See TPH         µg/L         <5  |              | >C8-C10 Aliphatics        | 4.55             | See TPH         | µg/L        | 989        | 98         | 304        | 987             | 77      | <5         | <5         |
| b         C12-C16 Aliphatics         4.55         See TPH         µg/L         <10   |              | >C10-C12 Aliphatics       | 4.55             | See TPH         | µg/L        | <5         | <5         | <5         | <5              | <5      | <10        | <10        |
| b         C16-C21 Aliphatics         See TPH         µg/L         <10  |              | >C12-C16 Aliphatics       | 4.55             | See TPH         | µg/L        | <10        | <10        | <10        | <10             | <10     | <10        | <10        |
| >C21-C35 Aliphatics         See TPH         µg/L         <10   |              | >C16-C21 Aliphatics       |                  | See TPH         | µg/L        | <10        | <10        | <10        | <10             | <10     | <10        | <10        |
| >C35-C44 Aliphatics         ug/L         -         <10   |              | >C21-C35 Aliphatics       |                  | See TPH         | µg/L        | <10        | <10        | <10        | <10             | <10     | <10        | <10        |
| Total >C5-C35 Aliphatics         See TPH         µg/L         1271         148         392         1253         158         <10  |              | >C35-C44 Aliphatics       |                  |                 | µg/L        | -          | <10        | -          | <10             | <10     | -          | -          |
| >EC5-EC7 Aromatics         See TPH         µg/L         <10  |              | Total >C5-C35 Aliphatics  |                  | See TPH         | µg/L        | 1271       | 148        | 392        | 1253            | 158     | <10        | <10        |
| >EC7-EC8 Aromatics         See TPH         µg/L         11         <10   |              | >EC5-EC7 Aromatics        |                  | See TPH         | µg/L        | <10        | <10        | <10        | <10             | <10     | <10        | <10        |
| >EC8-EC10 Aromatics         4.55         See TPH         µg/L         52         <10   |              | >EC7-EC8 Aromatics        |                  | See TPH         | µg/L        | 11         | <10        | <10        | <10             | <10     | 57         | <10        |
| >EC10-EC12 Aromatics         4.55         See TPH         µg/L         <5  |              | >EC8-EC10 Aromatics       | 4.55             | See TPH         | µg/L        | 52         | <10        | 20         | 68              | 14      | <5         | <5         |
| >EC12-EC16 Aromatics         4.55         See TPH         µg/L         10         <10  |              | >EC10-EC12 Aromatics      | 4.55             | See TPH         | µg/L        | <5         | <5         | <5         | <5              | <5      | <10        | <10        |
| >EC16-EC21 Aromatics         4.55         See TPH         µg/L         <10   |              | >EC12-EC16 Aromatics      | 4.55             | See TPH         | µg/L        | 10         | <10        | <10        | <10             | <10     | <10        | <10        |
| >EC21-EC35 Aromatics         4.55         See TPH         µg/L         <10   |              | >EC16-EC21 Aromatics      | 4.55             | See TPH         | µg/L        | <10        | <10        | <10        | <10             | <10     | <10        | <10        |
| >EC35-EC44 Aromatics         image: constraint of the second con |              | >EC21-EC35 Aromatics      | 4.55             | See TPH         | µg/L        | <10        | <10        | <10        | <10             | <10     | <10        | <10        |
| Total >EC5-EC44 Aromatics         ug/L         -         <10   |              | >EC35-EC44 Aromatics      |                  |                 | µg/L        | -          | <10        | -          | <10             | <10     | 57         | <10        |
| TPH >C5-C35         I10         µg/L         1344         148         412         1321         172         <0.5  |              | Total >EC5-EC44 Aromatics |                  |                 | µg/L        | -          | <10        | -          | 68              | 14      | -          | -          |
| BTEX and MT         Benzene         8         1         µg/L         <0.5  |              | TPH >C5-C35               |                  | 10              | µg/L        | 1344       | 148        | 412        | 1321            | 172     | < 0.5      | < 0.5      |
| Toluene         74         700         µg/L         10         <5  | BTEX and MT  | Benzene                   | 8                | 1               | µg/L        | < 0.5      | <0.5       | < 0.5      | <0.5            | < 0.5   | <5         | <5         |
| Ethylbenzene         20         300         µg/L         <1  |              | Toluene                   | 74               | 700             | µg/L        | 10         | <5         | <5         | <5              | <5      | <1         | <1         |
| Xvlene (m & p) 250 ug/l <2 - <2 - <1 <1  |              | Ethylbenzene              | 20               | 300             | µg/L        | <1         | <1         | <1         | <1              | <1      | <2         | <2         |
|  |              | Xylene (m & p)            |                  | 250             | µg/L        | <2         | -          | <2         | -               | -       | <1         | <1         |
| Xylene (o) 250 µg/L <1 <1 <1 <1 <1 <0.1 <0.1   |              | Xylene (o)                |                  | 250             | µg/L        | <1         | <1         | <1         | <1              | <1      | <0.1       | <0.1       |
| MTBE 15 µg/L <0.1 <0.1 <0.1 <0.1 <2 <2   |              | MTBE                      |                  | 15              | µg/L        | <0.1       | <0.1       | <0.1       | <0.1            | <0.1    | <2         | <2         |



|              |                             |                  |                 | Location    |            |            | Residu     | al Former Redca | r Works |            |            |
|--------------|-----------------------------|------------------|-----------------|-------------|------------|------------|------------|-----------------|---------|------------|------------|
| hemical Grou | Compound                    | Redcar - Adopted | UK Drinking     | Location ID | F-BH102    | F-BH102    | F-BH102    | F-BH102         | F-BH102 | F-BH102    | F-BH102    |
|              | Compound                    | Saline EQS       | Water Standards | Well        | S          | S          | D          | D               | м       | D          | S          |
|              |                             |                  |                 | Sample Date | 05/10/2022 | 08/11/2022 | 05/10/2022 | 09/11           | /2022   | 09/01/2023 | 10/01/2023 |
| VOC          | Styrene                     |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | cis-1,3-dichloropropene     |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | trans-1,3-dichloropropene   |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | 1,1,1,2-tetrachloroethane   |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | 1,1,1-trichloroethane       |                  | 2000            | µg/L        | <2         | <2         | <2         | <2              | <2      | <4         | <4         |
|              | 1,1,2,2-tetrachloroethane   |                  |                 | µg/L        | <4         | <4         | <4         | <4              | <4      | <2         | <2         |
|              | 1,1,2-trichloroethane       |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <3         | <3         |
|              | 1,1-dichloroethane          |                  | 2.8             | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | 1,1-dichloroethene          |                  | 140             | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | 1,1-dichloropropene         |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | 1,2,3-trichloropropane      |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | 1,2,4-trimethylbenzene      |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <2         | <2         |
|              | 1,2-dibromo-3-chloropropane |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | 1,2-dibromoethane           |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | 1,2-dichloroethane          | 10               | 3               | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | 1,2-dichloropropane         | 8                |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <3         | <3         |
|              | 1,3,5-trimethylbenzene      |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <2         | <2         |
|              | 2,2-dichloropropane         |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | -          | -          |
|              | Pyridine                    |                  |                 | µg/L        | <100       | -          | <100       | -               | -       | <3         | <3         |
|              | 2-chlorotoluene             |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | 4-chlorotoluene             |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <2         | <2         |
|              | Bromobenzene                |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | Bromochloromethane          |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | Bromodichloromethane        |                  | 25              | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | Bromoform                   |                  | 25              | µg/L        | <2         | <2         | <2         | <2              | <2      | <1         | <1         |
|              | Bromomethane                |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | <2         | <2         |
|              | Carbon tetrachloride        |                  | 3               | µg/L        | <2         | <2         | <2         | <2              | <2      | <2         | <2         |
|              | Chlorodibromomethane        |                  | 25              | µg/L        | <2         | <2         | <2         | <2              | <2      | <3         | <3         |
|              | Chloroethane                |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <2         | <2         |
|              | Chloroform                  | 2.5              | 25              | µg/L        | <2         | <2         | <2         | <2              | <2      | <3         | <3         |
|              | Chloromethane               |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | cis-1,2-dichloroethene      |                  | 25              | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | Dibromomethane              |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <2         | <2         |
|              | Dichlorodifluoromethane     |                  |                 | µg/L        | <2         | <2         | <2         | <2              | <2      | <3         | <3         |
|              | Dichloromethane             |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | Isopropylbenzene            |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | n-butylbenzene              |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | n-propylbenzene             |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | 107        | -          |
|              | n-Hexanol                   |                  |                 | µg/L        | -          | -          | -          | 139             | -       | <3         | <3         |
|              | p-isopropyltoluene          |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | sec-butylbenzene            |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | Trichloroethene             |                  | 5               | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | tert-butylbenzene           |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | Tetrachloroethene           |                  | 5               | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | trans-1,2-dichloroethene    |                  | 25              | µg/L        | <3         | <3         | <3         | <3              | <3      | <3         | <3         |
|              | Trichlorofluoromethane      |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <0.1       | <0.1       |
|              | Vinyl chloride              |                  | 0.5             | µg/L        | <0.1       | <0.1       | <0.1       | <0.1            | <0.1    | <3         | <3         |
| VOC/SVOC     | 1,2,3-trichlorobenzene      |                  |                 | µg/L        | <3         | <3         | <3         | <3              | <3      | <1         | <1         |
|              | 1,2,4-trichlorobenzene      |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | <1         | <1         |
|              | 1,2-dichlorobenzene         |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | <1         | <1         |
|              | 1,3-dichlorobenzene         |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | <1         | <1         |
|              | 1,4-dichlorobenzene         |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | <2         | <2         |
|              | Chlorobenzene               |                  | 100             | µg/L        | <2         | <2         | <2         | <2              | <2      | <1         | <1         |
|              | Hexachlorobutadiene         |                  |                 | µg/L        | <1         | <1         | <1         | <1              | <1      | <1         | <1         |



| Amminiation<br>Number         Ammonipoint<br>Number         Ammonip  | hemical Grou | u Compound                                | Redcar - Adopted<br>Saline EQS | UK Drinking<br>Water Standards | Location    | Residual Former Redcar Works |            |            |           |         |            |            |
|--|--------------|---|--------------------------------|--------------------------------|-------------|------------------------------|------------|------------|-----------|---------|------------|------------|
| Number of the standard in the standard |              |   |                                |                                | Location ID | F-BH102                      | F-BH102    | F-BH102    | F-BH102   | F-BH102 | F-BH102    | F-BH102    |
| SNOC         Arrowschwig/ herey (days)         Swapis Date         99:10:202         00:10:202         00:10:202 <th>Well</th> <th>S</th> <th>S</th> <th>D</th> <th>D</th> <th>м</th> <th>D</th> <th>S</th>  |              |   |                                |                                | Well        | S                            | S          | D          | D         | м       | D          | S          |
| SVCF         Attorneglend planul other,<br>Athinghand         upp,<br>upp,<br>upp,<br>Athinghand         upp,<br>up,<br>up,<br>up,<br>up,<br>up,<br>up,<br>up,<br>up,<br>up,   |              |   |                                |                                | Sample Date | 05/10/2022                   | 08/11/2022 | 05/10/2022 | 09/11     | /2022   | 09/01/2023 | 10/01/2023 |
| 4-introduline         (mail)   | SVOC         | 4-bromophenyl phenyl ether                |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <0.5       | <0.5       |
| 4 nerophend<br>besch   |              | 4-nitroaniline                            |                                |                                | µg/L        | < 0.5                        | <0.5       | < 0.5      | < 0.5     | < 0.5   | <10        | <10        |
| Catch         Catch <th< th=""><th></th><th>4-nitrophenol</th><th></th><th></th><th>µg/L</th><th>&lt;10</th><th>&lt;10</th><th>&lt;10</th><th>&lt;10</th><th>&lt;10</th><th>&lt;10</th><th>&lt;10</th></th<>   |              | 4-nitrophenol                             |                                |                                | µg/L        | <10                          | <10        | <10        | <10       | <10     | <10        | <10        |
| 2.3.5 Trimethylohend   |              | Catechol                                  |                                |                                | µg/L        | -                            | <10        | -          | <10       | <10     | <10        | <10        |
| 24.5 troitsophend         judt         dd5         dd5         dd6         dd5         dd6         dd5         dd1   |              | 2,3,5-Trimethylphenol                     |                                |                                | µg/L        | -                            | <10        | -          | <10       | <10     | < 0.5      | < 0.5      |
| 2.4.6-unic descension         2.6-0-unit descension         2.6-0-unit descension         4.6.1         4.1  |              | 2,4,5-trichlorophenol                     |                                |                                | µg/L        | < 0.5                        | <0.5       | <0.5       | <0.5      | < 0.5   | <1         | <1         |
| g2-4debingsphend         ppdL         d05         d05         d05         d05         d05         d05         d1         d1         d1           g2-debingsheme         ppdL         d1   |              | 2,4,6-trichlorophenol                     |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | < 0.5      | < 0.5      |
| 2.4-dimethylehend         jgdL         <1  |              | 2,4-dichlorophenol                        |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | < 0.5     | < 0.5   | <1         | <1         |
| Backet device         Log L         dds          defint disting disting<   |              | 2,4-dimethylphenol                        |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | < 0.5      | < 0.5      |
| 2.6-initiotures         jpl. <pre>classical         jpl.         <pre>classical         classical         <thclassical< th=""></thclassical<></pre></pre>  |              | 2,4-dinitrotoluene                        |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | < 0.5     | < 0.5   | <1         | <1         |
| Period         Period         PagA         etc         etc <tc< th="">         etc         <tc< th="">         etc<th>2,6-dinitrotoluene</th><th></th><th></th><th>µg/L</th><th>&lt;1</th><th>&lt;1</th><th>&lt;1</th><th>&lt;1</th><th>&lt;1</th><th>&lt;1</th><th>&lt;1</th></tc<></tc<>   |              | 2,6-dinitrotoluene                        |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <1         | <1         |
| 2-chioroghend  |              | 2-chloronaphthalene                       |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <1         | <1         |
| Participant         Part Part Part Part Part Part Part Part  |              | 2-chlorophenol                            |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <10        | <10        |
| Predshubblene         pagL         cd1   |              | 2-Isopropylphenol                         |                                |                                | µg/L        | -                            | <10        | -          | <10       | <10     | <1         | <1         |
| Participational         Participat   |              | 2-methylnaphthalene                       |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | < 0.5      | < 0.5      |
| Particontent         2-infrontine         upqL         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         <1         1  |              | 2-methylphenol                            |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | <0.5 - 20 | < 0.5   | <1         | <1         |
| Participation         page         cd5   |              | 2-nitroaniline                            |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | < 0.5      | <0.5       |
| S-Introalline         yall         <1  |              | 2-nitrophenol                             |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | < 0.5     | < 0.5   | <1         | <1         |
| d-chloros-methylphend         upl         cd.5         cd.5<   |              | 3-nitroaniline                            |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | < 0.5      | < 0.5      |
| 4-chloroshine         uppL         <1  |              | 4-chloro-3-methylphenol                   |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | < 0.5     | < 0.5   | <1         | <1         |
| 4-chlorophenyl phenyl ether         ug/L         <1  |              | 4-chloroaniline                           |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <1         | <1         |
| A-methylphenol         ug/L         <1   |              | 4-chlorophenyl phenyl ether               |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <1         | <1         |
| Azoberzene         µg/L         d0.5  |              | 4-methylphenol                            |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | < 0.5      | < 0.5      |
| $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  |              | Azobenzene                                |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | < 0.5     | < 0.5   | < 0.5      | < 0.5      |
| Bis(2-ch)oroethy)ether         1.3         µg/L         <1   |              | Bis(2-chloroethoxy) methane               |                                |                                | µg/L        | < 0.5                        | < 0.5      | < 0.5      | < 0.5     | < 0.5   | <1         | <1         |
| Bis(2-ethylinex)() phthalate         1.3         µg/L         <5   |              | Bis(2-chloroethyl)ether                   |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <5         | <5         |
| Burk bency printiate         upl         <1  |              | Bis(2-ethylhexyl) phthalate               | 1.3                            |                                | µg/L        | <5                           | <5         | <5         | <5        | <5      | <1         | <1         |
| Larrazole         Larrazole         μg/L <ul> <li><ul></ul></li></ul>  |              | Butyl benzyl phthalate                    |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <0.5       | < 0.5      |
| Diemzoluran         ug/L         <0,5  |              | Carbazole                                 |                                |                                | µg/L        | <0.5                         | < 0.5      | <0.5       | <0.5      | <0.5    | <0.5       | < 0.5      |
| Detertyprintative         upl         <1   |              | Dibenzoturan                              |                                |                                | µg/L        | <0.5                         | <0.5       | <0.5       | <0.5      | <0.5    | <1         | <1         |
| Dimetry primate         ug/L         <1  |              | Diethylphthalate                          |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <1      | <1         | <1         |
| Di-h-ody primate         upl_         <  |              | Dimetnyi phthalate                        |                                |                                | µg/L        | <1                           | <1         | <1         | <1        | <       | <1.5       | <1.5       |
| bl-h-dcty primate         bg/L         <1  |              | Di-n-butyi phthalate                      |                                |                                | µg/L        | <1.5                         | <1.5       | <1.5       | <1.5      | <1.5    | <          | <1         |
| Hexachlorobenzene         Ug/L         <1  |              | Di-n-octyl phthalate                      |                                |                                | µg/L        | <                            | <1         | <1         | <1        | <       | <          | <1         |
| Hexachiorocyclopentadiene         ug/L         <1  |              | Hexachiorobenzene                         |                                |                                | µg/L        | <                            | <1         | <1         | <1        | <       | <          | <1         |
| Headdinordentative         Logic         <1  |              | Hexachiorocyclopentadiene                 |                                |                                | µg/L        | < 1                          | <1         | <1         | <1        | < 1     | < 1        | < 1        |
| Nitobenzene         µg/L         <0.5  |              | Hexachioroethane                          |                                |                                | µg/L        | < 0.5                        | <0.5       | <0.5       | <0.5      |         | <0.0       | <0.0       |
| Nintoberizene         Up/L         <1  |              | Nitrobonzono                              |                                |                                | µg/L        | <0.0                         | <0.0       | <0.0       | <0.0      | C.U>    | < 0.5      | <0.5       |
| Nerritosoul-repropriating         uppL         <0.3  |              | Niliopenzene<br>N pitrosodi p propulamino |                                |                                | µg/L        | <0.5                         | <0.5       | <0.5       | <0.5      | <0.5    | <0.5       | <0.5       |
| SVOC TIC         1-Vertractino printion         1-Vertraction operation         1-Vertraction         1-Vertraction         1-Vertrac  |              | Pontachlorophonol                         |                                |                                | µg/L        | <0.5                         | <0.5       | <0.5       | <0.5      | <0.5    |            |            |
| VOC TIC         2-Heptanone         ug/l         -         -         -         102         -         104200         -<   | SVOC TIC     |   |                                |                                | µg/L        |                              |            |            | 132       |         |            | -          |
| Vote ric         Z-replation         Z-replation <thz-replation< th=""> <thz-replation< th=""> <t< th=""><th></th><th>2-Hentanone</th><th></th><th></th><th>ug/l</th><th>-</th><th></th><th></th><th>227 - 267</th><th>-</th><th>&lt;60</th><th></th></t<></thz-replation<></thz-replation<>   |              | 2-Hentanone                               |                                |                                | ug/l        | -                            |            |            | 227 - 267 | -       | <60        |            |
| Ayrential         Ayrential         Byrl         -         600         -         600         <000  | Phonolics    | Xylenols                                  |                                |                                | ug/l        |                              | <60        |            | <60       | <60     | <30        | <30        |
| Phenol         7.7         5800         µg/L         <1  | I HEHUICS    | Cresol Total                              |                                |                                |             |                              | 30         |            | 60        | <30     | <1         | <1         |
| Instruction          |              | Phenol                                    | 77                             | 5800                           | ua/l        | <1                           | <1         | <1         | <1        | <1      | <10        | <10        |
| Inspirate         Import         Impo  |              | 1-naphthol                                | 1.1                            | 0000                           |             | _                            | <10        | _          | <10       | <10     |            |            |
| Implement         Implement <t< th=""><th></th><th>m/p-cresol</th><th></th><th></th><th>ma/l</th><th>_</th><th>0.03</th><th>_</th><th>0.04</th><th>&lt;0.02</th><th>&lt;10</th><th>&lt;10</th></t<>  |              | m/p-cresol                                |                                |                                | ma/l        | _                            | 0.03       | _          | 0.04      | <0.02   | <10        | <10        |
| Total Speciated Phenols         mg/L         <100  |              | resorcinol (m-                            |                                |                                | ua/l        | _                            | <10        | -          | <10       | <10     | <100       | <100       |
| Other         Dissolved Inorganic Carbon         µg/L         -         <2000  |              | Total Speciated Phenols                   |                                |                                | ug/l        | _                            | <100       | _          | <100      | <100    | <2000      | 2000       |
| Dissolved Organic Carbon         µg/L         -         80,000         -         699,000         67,000         -         -           Hexanal         µg/L         -         -         -         105         -   | Other        | Dissolved Inorganic Carbon                |                                |                                | ug/L        | _                            | <2000      | _          | <2000     | <2000   | 390000     | 99000      |
| Hexanal µg/L 105 -   |              | Dissolved Organic Carbon                  |                                |                                | ua/l        | _                            | 80,000     | -          | 699,000   | 67.000  | -          | _          |
|  |              | Hexanal                                   |                                |                                | µg/L        | -                            | -          | -          | 105       | -       |            |            |

Notes

Exceeds - Adopted Saline EQS and the UK Drinking Water Standard. Exceeds - Adopted Saline EQS.





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