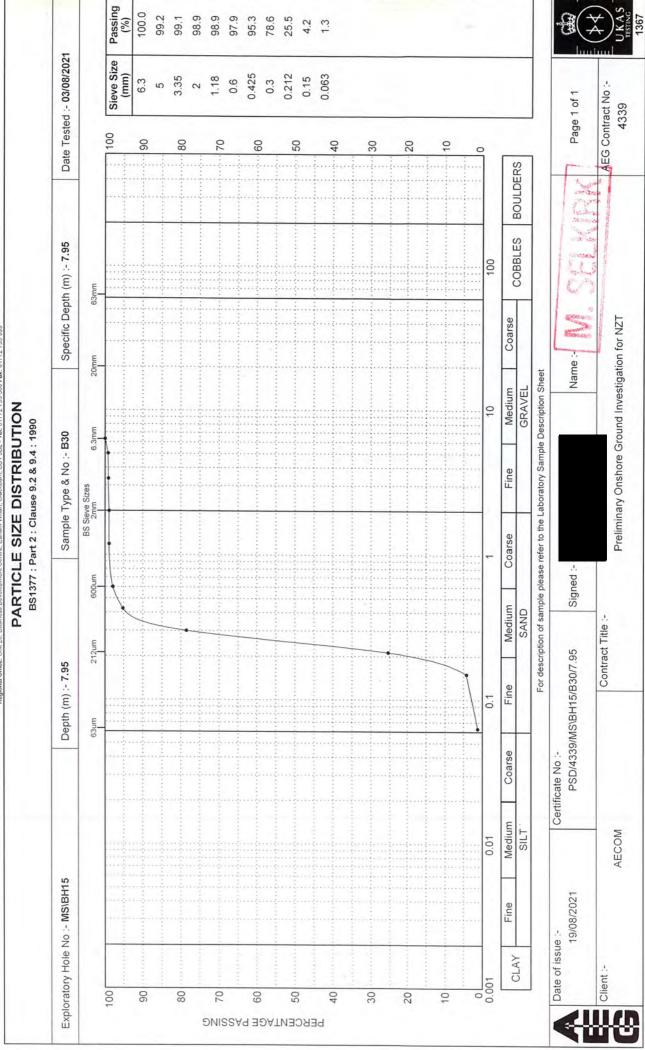
Passing (%) 100.0 1367 65.7 64.3 9.09 53.3 49.2 41.9 26.6 33.7 19.9 15.5 13.2 11.4 17.7 Date Tested :- 30/07/2021 Sieve Size (mm) 50 37.5 28 20 0.425 14 10 6.3 5 3.35 2 2 1.18 0.212 75 AEG Contract No :-Page 1 of 1 100 BOULDERS COBBLES Specific Depth (m) :- 2.20 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name : 20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B10 Fine BS Sieve Sizes 2mm Coarse Signed :-600um Medium SAND Contract Title :-PSD/4339/MS\BH15/B10/2.20 Depth (m) :- 2.20 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\BH15 19/08/2021 Fine Date of issue :-CLAY 0.00 1001 90 80 70 9 20 40 30 10 20 PERCENTAGE PASSING

Passing (%) 100.0 1367 40.3 32.8 32.0 28.5 23.0 22.0 21.0 26.2 19.9 18.7 18.2 16.6 24.1 Date Tested :- 26/08/2021 Sieve Size (mm) 37.5 28 20 14 10 6.3 5 3.35 2 2 2 0.6 0.425 0.212 0.3 75 63 50 AEG Contract No :-Page 1 of 1 4339 9 50 BOULDERS COBBLES Specific Depth (m) :- 4.20 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Preliminary Onshore Ground Investigation for NZT Coarse Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION Sample Type & No :- B17 Fine BS Sieve Sizes 2mm Coarse Medium SAND Contract Title 212um PSD/4339/MS\BH15/B17/4.20 Depth (m) :- 4.20 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM Exploratory Hole No :- MS\BH15 02/09/2021 Fine Date of issue :-CLAY Client :-0.001 100 90 80 70 9 40 30 10 50 20 PERCENTAGE PASSING

ALLIED EXPLORATION & GEOTECHNICS LIMITED Hod Office Int 25 State Gill Industrial Easte Patien Fell Chaefacles Street Co Durban 192 296. Tel: 0149 397 2710



ALLIED EXPLORATION & GEOTECHNICS LIMITED Hod Office, Unit 55 Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Office, Unit 55 Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill Industrial Estate Patron Fell Character Co. Program Play 2002, Tab World Stells Gill In

Passing (%) 100.0 1367 99.2 93.5 57.0 36.5 40.6 29.5 Date Tested :- 29/07/2021 Sieve Size (mm) 0.425 0.212 900.0 0.063 0.002 9.0 0.15 0.02 AEG Contract No :-Page 1 of 1 4339 100 10 20 49 30 20 BOULDERS COBBLES Specific Depth (m):- 5.90 100 Coarse Preliminary Onshore Ground Investigation for NZT Name : 20mm For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION BS1377: Part 2: Clause 9.2 & 9.4: 1990 Sample Type & No :- B30 Fine BS Sieve Sizes 2mm Coarse Signed :-600um Medium SAND Contract Title :-212um PSD/4339/MS\BH16/B30/5.90 Depth (m) :- 5.90 Fine 0.1 Certificate No :-Coarse Medium SILT AECOM 0.01 Exploratory Hole No :- MS\BH16 19/08/2021 Fine Date of issue :-CLAY Client :-0.00 100 90 80 20 60 50 40 30 10 20 PERCENTAGE PASSING

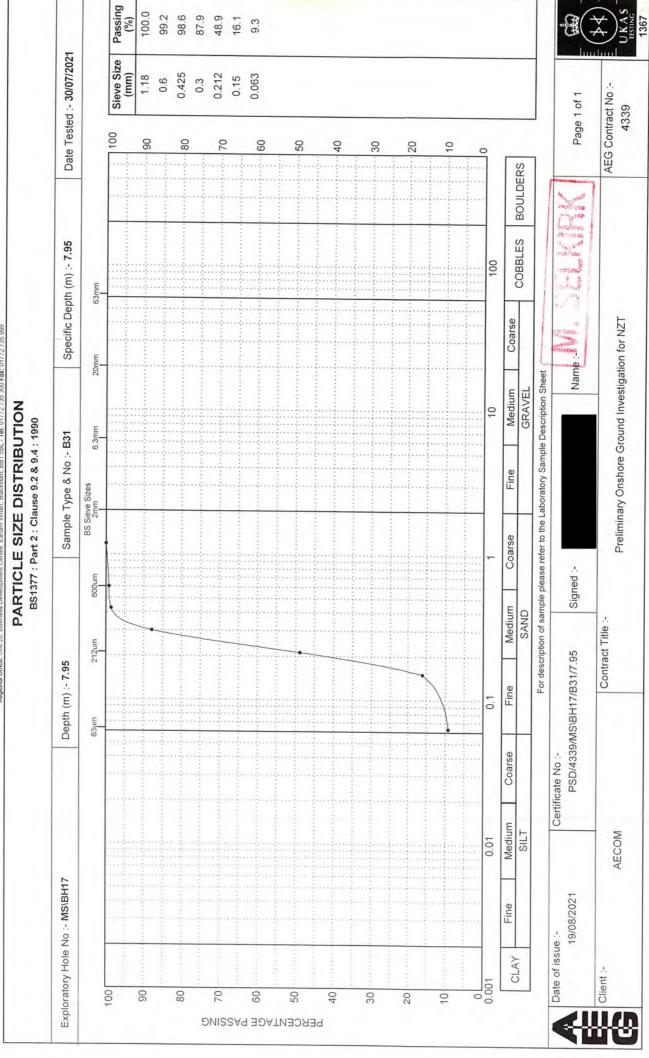
Passing (%) 100.0 98.7 98.7 98.7 98.7 98.6 98.5 98.7 98.2 97.5 87.8 36.6 11.7 Date Tested :- 02/08/2021 Sieve Size (mm) 14 10 6.3 5 3.35 2 1.18 0.6 0.425 0.3 0.212 0.063 20 AEG Contract No :-Page 1 of 1 100 20 10 BOULDERS Specific Depth (m):- 10.20 COBBLES 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Preliminary Onshore Ground Investigation for NZT Coarse Name :-For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION BS1377: Part 2: Clause 9.2 & 9.4: 1990 Sample Type & No :- B44 Fine BS Sieve Sizes Coarse Signed :-900um Medium SAND Contract Title :-212um PSD/4339/MS\BH16/B44/10.20 Depth (m) :- 10.20 Fine 0.1 Certificate No :-Coarse Medium AECOM SILT 0.01 Exploratory Hole No :- MS\BH16 19/08/2021 Fine Date of issue :-CLAY 0.00 1001 90 80 70 9 50 40 30 10 20 PERCENTAGE PASSING

Passing (%) 100.0 94.4 93.7 88.5 83.5 78.6 1367 85.1 81.3 75.7 7.1.7 8.69 6.99 62.6 56.7 43.7 29.7 19.2 Date Tested :- 02/08/2021 Sieve Size (mm) 50 37.5 28 20 14 10 6.3 5 3.35 2 2 1.18 0.6 0.212 0.063 0.006 0.02 AEG Contract No :-Page 1 of 1 BOULDERS COBBLES Specific Depth (m):- 0.50 ALLIED EXPLORATION & GEOTECHNICS LIMITED Preliminary Onshore Ground Investigation for NZT Coarse Name :-20mm For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION BS1377: Part 2: Clause 9.2 & 9.4: 1990 Sample Type & No :- B4 Fine BS Sieve Sizes 2mm Coarse Signed: 600um Medium SAND Contract Title :-PSD/4339/MS\BH17/B4/0.50 Depth (m) :- 0.50 Fine 0.1 Certificate No :-Coarse Medium SILT AECOM 0.01 Exploratory Hole No :- MS/BH17 19/08/2021 Fine Date of issue :-CLAY 0.00 100 90 80 70 9 50 40 30 10 20 PERCENTAGE PASSING

Passing (%) 43.6 52.2 38.3 34.2 28.3 26.0 1367 29.7 22.3 14.3 12.8 10.8 18.4 8.2 Date Tested :- 02/08/2021 Sieve Size (mm) 75 63 50 37.5 28 20 14 10 6.3 5 3.35 2 2 0.0 0.425 0.212 0.3 AEG Contract No :-Page 1 of 1 4339 100 BOULDERS COBBLES Specific Depth (m):- 5.20 100 Coarse Preliminary Onshore Ground Investigation for NZT Name :-20mm BS1377: Part 2: Clause 9.2 & 9.4: 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION Sample Type & No :- B22 Fine BS Sieve Sizes Coarse 600um Signed Medium SAND Contract Title :-PSD/4339/MS\BH17/B22/5.20 Depth (m) :- 5.20 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS/BH17 Fine Date of issue :-CLAY 0.00 1001 90 80 70 09 50 40 30 20 10 PERCENTAGE PASSING

Passing (%) 34.8 34.8 34.8 34.8 34.8 34.8 32.9 30.8 27.3 25.8 23.9 21.6 16.4 15.5 13.6 19.1 8.5 Date Tested :- 03/08/2021 Sieve Size (mm) 75 63 50 50 28 28 20 11 10 63 335 5 0.425 0.212 0.3 AEG Contract No :-Page 1 of 1 100 BOULDERS COBBLES Specific Depth (m):- 6.20 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B26 Fine BS Sieve Sizes 2mm Coarse Signed :-600um Medium SAND Contract Title :-PSD/4339/MS\BH17/B26/6.20 Depth (m) :- 6.20 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS/BH17 19/08/2021 Fine Date of issue :-CLAY 0.00 100 90 80 20 9 20 40 30 20 10 PERCENTAGE PASSING

ALLIED EXPLORATION & GEOTECHNICS LIMITED Had Office Int 25 State Gill Indicated Faster Patron For Charges Control Faster State Control Faster Control Faster



Passing (%) 100.0 98.5 7.07 65.3 60.7 79.1 54.7 49.7 39.8 29.4 13.8 20.1 12.2 10.7 Date Tested :- 13/08/2021 Sieve Size (mm) 63 50 37.5 28 20 14 10 6.3 5 3.35 2 1.18 0.6 0.212 AEG Contract No :-Page 1 of 1 4339 100 BOULDERS COBBLES Specific Depth (m):- 1.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT 20mm Name :-BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B8 Fine BS Sieve Sizes Coarse 600um Signed Medium SAND Contract Title :-PSD/4339/MS\TP01/B8/1.40 Depth (m) :- 1.40 Fine 0.1 Certificate No :-Coarse Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP01 20/08/2021 Fine Date of issue :-CLAY 9.00 100 90 80 70 9 50 40 30 20 10 PERCENTAGE PASSING

Passing (%) 100.0 7.76 92.8 89.5 7.06 90.2 88.7 87.6 85.8 82.9 86.4 36.2 Date Tested :- 06/08/2021 Sieve Size (mm) 37.5 28 20 14 10 6.3 5 3.35 2 2 1.18 0.6 0.425 0.212 50 AEG Contract No :-Page 1 of 1 4339 100 10 BOULDERS COBBLES Specific Depth (m) :- 4.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Name :-Preliminary Onshore Ground Investigation for NZT 20mm For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 Sample Type & No :- B22 Fine BS Sieve Sizes Coarse 600um Signed: Medium SAND Contract Title PSD/4339/MS\TP01/B22/4.40 Depth (m) :- 4.40 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP01 19/08/2021 Fine Date of issue :-CLAY 0.00 100 90 80 70 9 50 40 30 10 20 PERCENTAGE PASSING

Passing (%) 100.0 25.8 13.8 4.9 4.2 3.8 3.6 3.2 3.0 2.7 2.5 Date Tested :- 06/08/2021 Sieve Size (mm) 63 37.5 28 20 14 10 6.3 5 3.35 0.6 0.212 0.3 AEG Contract No :-Page 1 of 1 4339 100 9 50 BOULDERS COBBLES Specific Depth (m):- 1.40 100 **ALLIED EXPLORATION & GEOTECHNICS LIMITED** Preliminary Onshore Ground Investigation for NZT Coarse Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet GRAVEL Medium PARTICLE SIZE DISTRIBUTION Sample Type & No :- B8 Fine BS Sieve Sizes 2mm Coarse 600um Medium SAND Contract Title :-212um PSD/4339/MS\TP03/B8/1.40 Depth (m) :- 1.40 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP03 19/08/2021 Fine Date of issue :-CLAY Client :-0.00 100 90 80 20 9 50 40 30 20 10 PERCENTAGE PASSING

Passing (%) 28.2 1.5 1.3 6.0 0.8 1.3 5. 1.2 0.7 0.5 1.1 Date Tested :- 13/08/2021 Sieve Size (mm) 75 63 50 37.5 28 20 14 10 6.3 5 3.35 2 2 0.0 0.425 0.212 AEG Contract No :-Page 1 of 1 4339 50 BOULDERS COBBLES Specific Depth (m) :- 2.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name:-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION Sample Type & No :- B13 Fine BS Sieve Sizes Coarse 600um Medium SAND Contract Title 212um PSD/4339/MS\TP03/B13/2.40 Depth (m) :- 2.40 Fine 0.1 63um Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP03 20/08/2021 Fine Date of issue :-CLAY 0.00 100 90 80 70 9 20 40 30 20 10 PERCENTAGE PASSING

Passing (%) 100.0 73.9 73.9 62.7 52.0 1367 45.7 37.1 26.1 17.0 10.9 9.9 4.5 3.5 3.2 2.7 Date Tested :- 10/08/2021 Sieve Size (mm) 75 63 50 50 37.5 28 20 10 10 6.3 5 3.35 2 5 0.425 0.212 0.3 AEG Contract No :-Page 1 of 1 4339 50 BOULDERS COBBLES Specific Depth (m):- 1.40 100 **ALLIED EXPLORATION & GEOTECHNICS LIMITED** Preliminary Onshore Ground Investigation for NZT Coarse Name : BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION Sample Type & No :- B8 Fine BS Sieve Sizes Coarse Signed : 600um Medium SAND Contract Title :-212um PSD/4339/MS\TP04/B8/1.40 Depth (m) :- 1.40 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS/TP04 20/08/2021 Fine Date of issue :-CLAY Client :-0.00 100 90 80 20 9 50 40 30 20 10 PERCENTAGE PASSING

Passing (%) 100.0 1367 31.0 17.0 22.4 5.9 3.9 3.2 1.8 2.4 Date Tested :- 06/08/2021 Sieve Size (mm) 75 63 50 37.5 28 20 14 10 6.3 5 3.35 2 2 0.6 0.425 0.212 AEG Contract No :-Page 1 of 1 4339 100 60 20 BOULDERS COBBLES Specific Depth (m) :- 4.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Preliminary Onshore Ground Investigation for NZT Coarse Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B21 Fine BS Sieve Sizes Coarse Signed: 600um Medium SAND Contract Title :-212um PSD/4339/MS\TP04/B21/4.40 Depth (m) :- 4.40 Fine Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP04 19/08/2021 Fine Date of issue :-CLAY 0.00 100 90 80 70 09 10 50 40 30 20 PERCENTAGE PASSING

100.0 82.2 74.3 70.8 38.5 58.0 42.0 32.7 16.5 65.7 44.7 51.1 Date Tested :- 12/08/2021 Sieve Size (mm) 6.3 5 3.35 2 1.18 0.6 0.425 0.212 0.063 0.006 28 20 41 10 10 50 AEG Contract No :-Page 1 of 1 4339 9 BOULDERS COBBLES Specific Depth (m) :- 1.40 100 Preliminary Onshore Ground Investigation for NZT Coarse Name: -For description of sample please refer to the Laboratory Sample Description Sheet GRAVEL Medium PARTICLE SIZE DISTRIBUTION BS1377: Part 2: Clause 9.2 & 9.4: 1990 Sample Type & No :- B9 Fine BS Sieve Sizes Coarse 600um Medium Contract Title :-212um PSD/4339/MS\TP05/B9/1.40 Depth (m) :- 1.40 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP05 31/08/2021 Fine Date of issue :-CLAY 0.001 100 90 80 20 9 20 40 30 20 10 PERCENTAGE PASSING

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Passing (%) 79.0 72.0 72.0 99.0 46.3 46.3 36.4 29.4 23.3 19.7 16.9 14.2 12.3 10.8 10.1 9.2 8.0 6.9 Date Tested :- 06/08/2021 Sieve Size (mm) 0.425 50 37.5 28 20 14 10 6.3 5 3.35 2 2 1.18 0.212 AEG Contract No :-Page 1 of 1 100 BOULDERS COBBLES Specific Depth (m):- 3.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Name : Preliminary Onshore Ground Investigation for NZT Coarse 20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION Sample Type & No :- B17 Fine BS Sieve Sizes Coarse Signed: 600um Medium SAND Contract Title :-212um PSD/4339/MS\TP05/B17/3.40 Depth (m) :- 3.40 Fine 0.1 Certificate No :-Coarse Medium AECOM SILT Exploratory Hole No :- MS\TP05 19/08/2021 Fine Date of issue :-CLAY Client :-0.00 001 10 90 80 20 09 20 40 30 20 PERCENTAGE PASSING

Passing (%) J K A S TESTING 1367 68.8 52.4 41.8 17.8 15.0 14.1 12.9 11.5 10.0 8.0 6.9 3.7 Date Tested :- 09/08/2021 Sieve Size (mm) 0.425 0.212 28 20 14 10 6.3 5 3.35 2 2 2 0.6 0.3 AEG Contract No :-Page 1 of 1 4339 100 BOULDERS COBBLES Specific Depth (m) :- 0.40 100 Coarse Preliminary Onshore Ground Investigation for NZT Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B3 Fine BS Sieve Sizes Coarse Signed :mnio09 Medium SAND Contract Title :-212um PSD/4339/MS\TP06/B3/0.40 Depth (m):- 0.40 Fine 0.1 Coarse Certificate No :-Medium AECOM SILT Exploratory Hole No :- MS\TP06 19/08/2021 Fine Date of issue :-CLAY 0.00 1001 90 80 70 9 50 40 10 30 20 PERCENTAGE PASSING

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Passing (%) 100.0 9.64 58.9 1367 75.1 44.4 39.6 34.0 30.8 25.7 21.8 18.8 15.5 12.5 14.2 10.2 8.3 Date Tested :- 04/08/2021 Sieve Size (mm) 28 20 14 10 6.3 5 5 3.35 2 2 2 0.6 0.425 0.212 0.3 63 AEG Contract No :-Page 1 of 1 100 9 50 10 BOULDERS COBBLES Specific Depth (m) :- 0.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B3 Fine BS Sieve Sizes Coarse Signed :-600um Medium SAND Contract Title :-212um PSD/4339/MS\TP07/B3/0.40 Depth (m) :- 0.40 Fine 0.1 Certificate No :-Coarse Medium SILT AECOM 0.01 Exploratory Hole No :- MS/TP07 19/08/2021 Fine Date of issue :-CLAY Client :-0.00 1001 8 80 20 9 50 40 30 10 20 PERCENTAGE PASSING

Passing (%) 100.0 9.08 76.1 52.7 44.0 36.5 27.2 19.9 1367 14.4 8.9 5.8 3.4 Date Tested :- 13/08/2021 Sieve Size (mm) 6.3 5 3.35 2 1.18 0.6 0.212 0.3 63 AEG Contract No :-Page 1 of 1 4339 100 BOULDERS COBBLES Specific Depth (m):- 3.40 100 **ALLIED EXPLORATION & GEOTECHNICS LIMITED** Coarse Preliminary Onshore Ground Investigation for NZT Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION Sample Type & No :- B17 Fine BS Sieve Sizes Coarse Signed :-Medium Contract Title :-212um PSD/4339/MS\TP07/B17/3.40 Depth (m):- 3.40 Fine 0.1 63um Certificate No :-Coarse Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP07 20/08/2021 Fine Date of issue :-CLAY Client :-0.00 100 90 80 70 9 50 40 30 10 20 PERCENTAGE PASSING

Passing (%) 100.0 92.6 82.3 69.5 53.9 38.7 30.8 22.0 19.1 15.7 12.3 9.6 6.9 0.9 5.0 4.0 Date Tested :- 06/08/2021 Sieve Size (mm) 63 37.5 28 20 14 10 6.3 5 3.35 2 1.18 0.6 0.425 0.3 0.212 AEG Contract No :-Page 1 of 1 4339 100 BOULDERS COBBLES Specific Depth (m) :- 2.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name :-20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B13 Fine BS Sieve Sizes Coarse Signed: 900um Medium SAND Contract Title :-PSD/4339/MS\TP09/B13/2.40 Depth (m) :- 2.40 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS/TP09 19/08/2021 Fine Date of issue :-CLAY 0.00 100 80 90 70 40 09 50 30 20 10 PERCENTAGE PASSING

Passing (%) 100.0 868 66.3 64.6 62.9 54.8 46.2 39.0 33.5 27.8 37.4 22.0 16.0 13.7 11.0 1367 Date Tested :- 09/08/2021 Sieve Size (mm) 75 63 37.5 28 20 20 11 10 6.3 5 5 3.35 2 6.3 0.425 0.212 0.3 AEG Contract No :-Page 1 of 1 4339 100 BOULDERS COBBLES Specific Depth (m):- 4.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name -20mm BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990 (Test deviated from standard due to insufficient sample mass) For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION 10 Sample Type & No :- B22 Fine BS Sieve Sizes 2mm Coarse Signed: 600um Medium SAND Contract Title :-PSD/4339/MS\TP09/B22/4.40 Depth (m) :- 4.40 Fine 0.1 Coarse Certificate No :-Medium SILT AECOM 0.01 Exploratory Hole No :- MS\TP09 19/08/2021 Fine Date of issue :-CLAY 0.00 100 80 90 70 9 40 50 30 20 10 PERCENTAGE PASSING

Passing (%) 100.0 9.66 98.4 0.96 93.8 91.8 89.6 88.5 86.7 83.8 74.8 70.0 80.7 Date Tested :- 06/08/2021 Sieve Size (mm) 0.425 0.212 3.35 1.18 0.15 0.063 90000 0.002 14 AEG Contract No :-Page 1 of 1 4339 100 20 9 40 30 20 BOULDERS COBBLES Specific Depth (m):- 0.40 100 ALLIED EXPLORATION & GEOTECHNICS LIMITED Coarse Preliminary Onshore Ground Investigation for NZT Name : 20mm For description of sample please refer to the Laboratory Sample Description Sheet Medium GRAVEL PARTICLE SIZE DISTRIBUTION BS1377: Part 2: Clause 9.2 & 9.4: 1990 6.3mm Sample Type & No :- LB3 Fine BS Sieve Sizes Coarse Signed :-600um Medium SAND Contract Title :-212um PSD/4339/MS\TP10/LB3/0.40 Depth (m) :- 0.40 Fine 0.1 Certificate No :-Coarse Medium SILT AECOM 0.01 Exploratory Hole No :- MS/TP10 31/08/2021 Fine Date of issue :-CLAY 0.001 1001 90 80 20 9 20 40 30 20 10 PERCENTAGE PASSING

Determination of Chloride, Organic, Loss on Ignition, Total Sulphur, Sulphate and pH

(Tested Externally)





Certificate Number 21-17187

Issued:

23-Aug-21

Client Allied Exploration & Geotechnics Limited

Unit 25

Stella Gill Industrial Estate

Pelton Fell DH2 2RG

Our Reference 21-17187

Client Reference 4339

Order No LA2548

Contract Title Preliminary Onshore Ground Investigation for NZT

Description 24 Soil samples.

Date Received 16-Aug-21

Date Started 16-Aug-21

Date Completed 23-Aug-21

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

Kirk Bridgewood General Manager



Summary of Chemical Analysis

Soil Samples

Our Ref 21-17187 Client Ref 4339

Contract Title Preliminary Onshore Ground Investigation for NZT

		La	oN q	Lab No 1890347	1890348	1890349	1890350	1890351	1890352	1890353	1890354	1890355	1890356	1890357
		Sample ID	le ID	LF\BH01	LF\BH01	LF\BH01	LF\BH02	LF\BH02	MS\BH02	MS\BH02	MS\BH03	MS\BH03	MS\BH04	MS\BH05
		۵	Depth	29.30	34.60	38.50	27.90	33.40	26.30	28.60	26.10	28.90	25.00	21.80
		Oth	Other ID											
		Sample Type	Туре	O	O	O	U	O	U	O	U	O	O	0
		Sampling Date 29/06/2021	Date 2		30/06/2021	01/07/2021	05/07/2021	06/07/2021	30/06/2021	01/07/2021	25/06/2021	28/06/2021	22/06/2021	21/06/2021
		Sampling Time	Time	s/u	s/u	s/u	s/u	s/u	s/u	s/u	s/u	s/u	s/u	s/u
Test	Method	LOD Units	Juits											
Inorganics														
рН	DETSC 2008#		Hd	7.9	7.8	8.3	8.3	8.6	8.3	8.1	8.1	8.3	8.2	9.0
Chloride Aqueous Extract	DETSC 2055	1	l/gm	96	180	75	86	78	260	73	210	120	61	270
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	l/gm	260	066	630	220	270	450	069	710	520	270	310
Sulphur as S, Total	DETSC 2320	0.01	%	0.23	0.85	0.56	0.29	0.43	0.38	0.58	0.24	0.34	0.31	0.09
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.24	0.33	0.21	0.13	0.11	0.21	0.20	0.20	0.14	0.21	0.10

Summary of Chemical Analysis Soil Samples

Our Ref 21-17187 Client Ref 4339 Contract Title Preliminary Onshore Ground Investigation for NZT

		Lab No	Lab No 1890358	1890359	1890360	1890361	1890362	1890363	1890364	1890365	1890366	1890367	1890368
		Sample ID MS\E	MS\BH05	MS\BH06	MS\BH06	MS\BH10	MS\BH10	MS\BH11	MS\BH11	MS\BH11	MS\BH12	MS\BH12	MS\BH13
		Depth	28.00	23.70	29.10	21.95	22.60	21.18	28.10	34.05	20.40	28.50	18.90
		Other ID											
		Sample Type	U	O	O	O	O	O	O	U	U	O	O
		Sampling Date 22/06	22/06/2021	02/06/2021	04/06/2021	16/06/2021	16/06/2021	09/06/2021	11/06/2021	14/06/2021	11/06/2021	14/06/2021	30/06/2021
		Sampling Time	s/u	s/u	s/u	s/u	s/u	s/u	s/u	s/u	s/u	n/s	n/s
Test	Method	LOD Units											
Inorganics													
Hd	DETSC 2008#	Hd	6.9			8.7	9.3	8.5	9.2	9.2	8.5	8.0	8,9
Chloride Aqueous Extract	DETSC 2055	1 mg/l	90	210	160	71	110	430	46	53	096	110	130
Sulphate Aqueous Extract as SO4	DETSC 2076#	10 mg/l	1700			290	280	420	550	470	1700	230	500
Sulphur as S, Total	DETSC 2320	0.01 %	1.1			0.46	0.34	0.17	0.46	0.67	0.06	1.3	0.69
Sulphate as SO4, Total	DETSC 2321#	0.01 %	0.62			0.17	0.08	0.16	0.16	0.24	0.08	0.58	0.16

Summary of Chemical Analysis Soil Samples

Our Ref 21-17187 Client Ref 4339

Contract Title Preliminary Onshore Ground Investigation for NZT

		Lak	Lab No	1890369	1890370
		Sampl	le ID	.Sample ID MS\BH14	MS\BH14
		Ď	Depth	19.10	22.00
		Other ID	er ID		
		Sample Type	ype	O	O
		Sampling Date 30/06/2021	Jate 30	0/06/2021	30/06/2021
		Sampling Time	ime	s/u	s/u
Test	Method	n dol	Units		
Inorganics					
Hd	DETSC 2008#		Hd	8.6	9.0
Chloride Aqueous Extract	DETSC 2055	1 .	l/gm	360	130
Sulphate Aqueous Extract as SO4	DETSC 2076#	10 . r	I/gm	260	200
Sulphur as S, Total	DETSC 2320	0.01	%	0.93	0.67
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.19	0.16



Our Ref 21-17187 Client Ref 4339

Contract Preliminary Onshore Ground Investigation for NZT

Containers Received & Deviating Samples

n	2	٠	0

inappropriate container for

Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	container for tests
1890347	LF\BH01 29.30 SOIL	29/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890348	LF\BH01 34.60 SOIL	30/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890349	LF\BH01 38.50 SOIL	01/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890350	LF\BH02 27.90 SOIL	05/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
			7.53	Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890351	LF\BH02 33.40 SOIL	06/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890352	MS\BH02 26.30 SOIL	30/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890353	MS\BH02 28.60 SOIL	01/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890354	MS\BH03 26.10 SOIL	25/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890355	MS\BH03 28.90 SOIL	28/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890356	MS\BH04 25.00 SOIL	22/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890357	MS\BH05 21.80 SOIL	21/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890358	MS\BH05 28.00 SOIL	22/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890359	MS\BH06 23.70 SOIL	02/06/21	PT 500ml	Anions 2:1 (30 days)	
1890360	MS\BH06 29.10 SOIL	04/06/21	PT 500ml	Anions 2:1 (30 days)	
1890361	MS\BH10 21.95 SOIL	16/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890362	MS\BH10 22.60 SOIL	16/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890363	MS\BH11 21.18 SOIL	09/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890364	MS\BH11 28.10 SOIL	11/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890365	MS\BH11 34.05 SOIL	14/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890366	MS\BH12 20.40 SOIL	11/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	



inappropriate

Information in Support of the Analytical Results

Our Ref 21-17187 Client Ref 4339

Contract Preliminary Onshore Ground Investigation for NZT

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	container for
1890367	MS\BH12 28.50 SOIL	14/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890368	MS\BH13 18.90 SOIL	30/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890369	MS\BH14 19.10 SOIL	30/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1890370	MS\BH14 22.00 SOIL	30/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 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

End of Report



Certificate Number 21-17664

Issued:

01-Sep-21

Client Allied Exploration & Geotechnics Limited

Unit 25

Stella Gill Industrial Estate

Pelton Fell DH2 2RG

Our Reference 21-17664

Client Reference 4339

Order No LA 2548

Contract Title Preliminary Onshore Ground Investigation for NZT

Description 63 Soil samples.

Date Received 20-Aug-21

Date Started 20-Aug-21

Date Completed 01-Sep-21

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



Adam Fenwick Contracts Manager





Soil Samples

Our Ref 21-17664 Client Ref 4339 Contract Title Preliminary Onshore Ground Investigation for NZT

		_	Lab No	1893052	1893053	1893054	1893055	1893056	1893057	1893058	1893059	1893060	1893061
		.Sam	Sample ID	MS\BH08	MS\BH08	MS\BH08	MS\BH06	MS\BH06	MS\BH06	MS\BH06	MS\BH08	MS\BH08	MS\BH08
			Depth	25.10	27.45	29.20	0.50	1.50	4.90	5.70	1.80	7.80	10.20
		ŏ	Other ID	6	11	12	6	11	15	17	14	25	33
		Sample Type	e Type	O	O	O	7	7	7	ſ	8	ſ	ſ
		Sampling Date	g Date	04/06/2021	07/06/2021	07/06/2021	26/05/2021	26/05/2021	26/05/2021	01/06/2021	02/06/2021	02/06/2021	02/06/2021
		Sampling Time	g Time	s/u	n/s								
Test	Method	LOD Units	Units										
Inorganics													
Loss on Ignition at 440oC	DETSC 2003#	0.01	%										
Hd	DETSC 2008#		Hd	9.8	8.5	9.8	9.2	9.6	11.1	9.1	10.9	8.6	9.6
Organic matter	DETSC 2002#	0.1	%										
Chloride Aqueous Extract	DETSC 2055	Н	I/gm				24	23	23	17	7.2	27	21
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	I/gm	260	950	610	120	250	580	290	1800	410	1700
Sulphur as S, Total	DETSC 2320	0.01	%	0.52	0.53	1.0	60.0	. 0.15	0.54	0.10	0.92	0.10	0.38
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.21	0.30	0.18	60.0	0.29	0.91	0.22	1.9	0.15	0.63



Soil Samples

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		La	Lab No	1893062	1893063	1893064	1893065	1893066	1893067	1893068	1893069	1893070	1893071
		Sample ID		MS\BH11	MS\BH11	MS\BH11	MS\BH11	MS\BH05	MS\BH05	MS\BH05	MS\BH05	MS\BH08	MS\BH08
		۵	Depth	6.45	10.95	13.20	13.20	2.70	7.95	7.95	11.70	15.70	16.30
		Oth	Other ID	26	38	1	44	9	17	18	28	51	53
		Sample Type	Type	٦	٢	10	٦	В	-	В	В	٦	ſ
		Sampling Date		03/06/2021	08/06/2021	03/06/2021	08/06/2021	17/06/2021	17/06/2021	17/06/2021	17/06/2021	08/06/2021	08/06/2021
		Sampling Time	Time	s/u									
Test	Method	LOD Units	Juits										
Inorganics													
Loss on Ignition at 440oC	DETSC 2003#	0.01	%										
Hd	DETSC 2008#		Hd	8.8	0.6		8.4		9.1				
Organic matter	DETSC 2002#	0.1	%			1.8		1.5		9.0	0.4	2.0	12
Chloride Aqueous Extract	DETSC 2055	1	l/gm	4.2	14		76		480				
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120	440		1200		270				
Sulphur as S, Total	DETSC 2320	0.01	%	0.03	0.15		09.0		0.13				
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.07	0.14		0.28		0.10				



Soil Samples

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		7	Lab No	1893072	1893073	1893074	1893075	1893076	1893077	1893078	1893079	1893080	1893081
		.Sam	Sample ID	MS\BH11	MS\BH02	MS\BH02	MS\BH03	MS\BH03	MS\BH03	MS\BH05	LF\BH01	LF\BH01	LF\BH02
			Depth	17.20	3.00	7.50	1.75	5.00	15.10	15.00	1.50	28.20	0.50
		O	Other ID	53	15	31	13	23	55	35	6	80	4
		Sample Type	e Type	7	7	٦	В	٦	٦	7	٦	٦	ſ
		Sampling Date		10/06/2021	28/06/2021	28/06/2021	23/06/2021	23/06/2021	23/06/2021	17/06/2021	23/06/2021	29/06/2021	24/06/2021
		Sampling Time	Time	s/u									
Test	Method	LOD Units	Units										
Inorganics													
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				1.9		5.5				
Hd	DETSC 2008#		Hd	11.1		11.0		10.1		9.0	10.6	8.4	11.9
Organic matter	DETSC 2002#	0.1	%		2.6		1.3		2.2				
Chloride Aqueous Extract	DETSC 2055	1	l/gm	1500		200		19		910	81	940	100
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	l/gm	420		80		32		380	1200	260	56
Sulphur as S, Total	DETSC 2320	0.01	%	0.12		0.03		0.02		0.07	0.43	0.24	0.79
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.13		0.05		0.05		0.10	0.49	0.18	0.29



Soil Samples

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		_	Lab No	1893082	1893083	1893084	1893085	1893086	1893087	1893088	1893089	1893090	1893091
		.Sam	Sample ID	LF\BH02	MS\BH07	MS\BH07	MS\BH07	MS\BH07	MS\BH13	MS\BH13	MS\BH14	MS\BH14	MS\BH14
			Depth	20.90	2.00	7.50	14.00	15.70	0.50	4.50	1.50	4.50	6.00
		ŏ	Other ID	62	4	19	42	47	00	20	7	17	23
		Sample	Sample Type		В	ſ		_	_	7	7	٦	1
		Sampling Date	g Date	24/07/2021	05/07/2021	05/07/2021	05/07/2021	05/07/2021	28/05/2021	28/05/2021	30/06/2021	30/06/2021	30/06/2021
		Sampling Time	3 Time	s/u									
Test	Method	LOD Units	Units										
Inorganics													
Loss on Ignition at 440oC	DETSC 2003#	0.01	%		1.3	4.8	4.5					5.0	0.66
Hd	DETSC 2008#		Hd	8.3				6.7	12.2	7.6	10.7		9.8
Organic matter	DETSC 2002#	0.1	%		1.2	2.8	1.9					< 0.1	< 0.1
Chloride Aqueous Extract	DETSC 2055	1	I/gm	1100				74	130	87	16		170
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	l/gm	250				2100	25	1600	310		420
Sulphur as S, Total	DETSC 2320	0.01	%	0.14				2.8	0.17	1.3	0.37		0.07
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.14				0.72	0.41	0.39	0.84		0.16



Soil Samples

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			Lab No	1893092	1893093	1893094	1893095	1893096	1893097	1893098	1893099	1893100	1893101
		.San	Sample ID	MS\BH14	MS\BH14	MS\BH15	MS\BH15	MS\BH15	MS\BH15	MS\BH15	MS\BH16	MS\BH16	MS\BH16
			Depth	15.60	16.95	7.50	14.00	14.70	17.70	18.00	0.10	2.50	5.65
		O	Other ID	26	09	29	52	1	2	75	2	13	27
		Sampl	Sample Type	1	1	7	ſ	TU	TU	٦	٦	٦	٦
		Sampling Date	g Date	01/07/2021	01/07/2021	06/07/2021	06/07/2021	02/07/2021	02/07/2021	06/07/2021	02/07/2021	02/07/2021	02/07/2021
		Sampling Time	g Time	s/u	n/s	n/s							
Test	Method	LOD Units	Units										
Inorganics													
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	6.3			3.9	4.0	8.1		8.2		11
Hd	DETSC 2008#		Hd		8.7	8.7				8.2		8.7	
Organic matter	DETSC 2002#	0.1	%	2.7			2.7	1.5			3.7		4.6
Chloride Aqueous Extract	DETSC 2055	1	I/gm		530	230				290		220	
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	I/gm		300	210				410		870	
Sulphur as S, Total	DETSC 2320	0.01	%		0.04	0.04				0.16		0.34	
Sulphate as SO4, Total	DETSC 2321#	0.01	%		60.0	0.08				0.13		0.28	

Summary of Chemical Analysis

Soil Samples

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		_	Lab No	1893102	1893103	1893104	1893105	1893106	1893107	1893108	1893109	1893110	1893111
		.San	Sample ID	MS\BH16	MS\BH16	MS\BH16	MS\BH16	MS\BH17	MS\BH17	MS\BH17	MS\BH17	MS\BH17	MS\BH17
			Depth	2.90	10.20	14.70	18.00	1.00	5.00	10.50	14.50	15.50	17.70
		Õ	Other ID	30	44	1	76	7	21	41	47	52	2
		Sampl	Sample Type	В	8	TO	٦	ī	٦	7		7	TU
		Sampling Date	g Date	02/07/2021	02/07/2021	02/07/2021	05/07/2021	07/07/2021	07/07/2021	07/07/2021	07/07/2021	07/07/2021	07/07/2021
		Sampling Time	g Time	n/s	s/u	s/u	s/u	s/u	s/u	s/u	n/s	n/s	n/s
Test	Method	LOD Units	Units										
Inorganics													
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	0.92	1.1	< 0.01				2.7	4.7		7.4
рН	DETSC 2008#		Н				8.5	8.3	11.4		7.7	8.2	
Organic matter	DETSC 2002#	0.1	%	0.5	1.0					< 0.1	3.3		
Chloride Aqueous Extract	DETSC 2055	1	I/gm				420	180	63		096	880	
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	I/Bm				630	93	220		1100	069	
Sulphur as S, Total	DETSC 2320	0.01	%				0.81	0.03	0.21		0.75	0.22	
Sulphate as SO4, Total	DETSC 2321#	0.01	%				0.15	0.05	0.49		0.27	0.17	

Summary of Chemical Analysis

Soil Samples

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Lab No	1893112	1893113	1893114
Sample ID	MS\BH17	MS\BH02	MS\BH13
Depth	18.50	2.00	15.30
Other ID	63	4	50
Sample Type	٦	ES	ES
Sampling Date	07/07/2021	25/06/2021	06/07/2021
Sampling Time	s/u	s/u	/u

	Metilod	LOD OILLS	Ollics			
Inorganics						
Loss on Ignition at 440oC	DETSC 2003#	0.01	%			
Н	DETSC 2008#		Hd	8.3	9.4	8.3
Organic matter	DETSC 2002#	0.1	%			
Chloride Aqueous Extract	DETSC 2055	1	l/gm	1100	64	650
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	I/gm	510	520	540
Sulphur as S, Total	DETSC 2320	0.01	%	0.65	0.29	0.55
Sulphate as SO4, Total	DETSC 2321#	0.01	%	0.30	0.38	0.17



Our Ref 21-17664 Client Ref 4339

Contract Preliminary Onshore Ground Investigation for NZT

Containers Received & Deviating Samples

		Date			Inappropriate container for
Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	tests
1893052	MS\BH08 25.10 SOIL	04/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893053	MS\BH08 27.45 SOIL	07/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893054	MS\BH08 29.20 SOIL	07/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893055	MS\BH06 0.50 SOIL	26/05/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893056	MS\BH06 1.50 SOIL	26/05/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893057	MS\BH06 4.90 SOIL	26/05/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893058	MS\BH06 5.70 SOIL	01/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893059	MS\BH08 1.80 SOIL	02/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893060	MS\BH08 7.80 SOIL	02/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893061	MS\BH08 10.20 SOIL	02/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893062	MS\BH11 6.45 SOIL	03/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	1
1893063	MS\BH11 10.95 SOIL	08/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893064	MS\BH11 13.20 SOIL	03/06/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893065	MS\BH11 13.20 SOIL	08/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893066	MS\BH05 2.70 SOIL	17/06/21	PT 500ml	Organic Matter (Manual) (20 days)	
1893067	MS\BH05 7.95 SOIL	17/06/21		Organic Matter (Manual) (28 days) Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893068	MS\8H05 7.95 SOIL	17/06/21	PT 500ml	Organic Matter/Manually (22	
1893069	MS\BH05 11.70 SOIL	17/06/21	to the second se	Organic Matter (Manual) (28 days)	
1893070	MS\BH08 15.70 SOIL	08/06/21		Organic Matter (Manual) (28 days) Organic Matter (Manual) (28 days)	
1893071	MS\BH08 16.30 SOIL	08/06/21		Organic Matter (Manual) (28 days) Organic Matter (Manual) (28 days)	
1893072	MS\BH11 17.20 SOIL	10/06/21		Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	



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		Date			Inappropriate container for
Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	tests
1893073	MS\BH02 3.00 SOIL	28/06/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893074	MS\BH02 7.50 SOIL	28/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893075	MS\BH03 1.75 SOIL	23/06/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893076	MS\8H03 5.00 SOIL	23/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893077	MS\BH03 15.10 SOIL	23/06/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893078	MS\BH05 15.00 SOIL	17/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893079	LF\BH01 1.50 SOIL	23/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893080	LF\BH01 28.20 SOIL	29/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893081	LF\BHO2 0.50 SOIL	24/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893082	LF\BH02 20.90 SOIL	24/07/21	PT 500ml	Total Sulphur ICP (7 days), pH + Conductivity (7 days)	
1893083	MS\BH07 2.00 SOIL	05/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893084	MS\8H07 7.50 SOIL	05/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893085	MS\BH07 14.00 SOIL	05/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893086	MS\BH07 15.70 SOIL	05/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893087	MS\BH13 0.50 SOIL	28/05/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893088	MS\BH13 4.50 SOIL	28/05/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893089	MS\BH14 1.50 SOIL	30/06/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893090	MS\BH14 4.50 SOIL	30/06/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893091	MS\BH14 6.00 SOIL	30/06/21		Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1893092	MS\BH14 15.60 SOIL	01/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893093	MS\BH14 16.95 SOIL	01/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893094	MS\BH15 7.50 SOIL	06/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893095	MS\BH15 14.00 SOIL	06/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893096	MS\BH15 14.70 SOIL	02/07/21		Organic Matter (Manual) (28 days)	
1893097	MS\BH15 17.70 SOIL	02/07/21		,	



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		Date			Inappropriate container for
Lab No	Sample ID	Sampled	Containers Received	Holding time exceeded for tests	tests
1893098	MS\BH15 18.00 SOIL	06/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total	
				Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893099	MS\BH16 0.10 SOIL	02/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893100	MS\BH16 2.50 SOIL	02/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
				Sulphate ICF (30 days), pri + Conductivity (7 days)	
1893101	MS\BH16 5.65 SOIL	02/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893102	MS\BH16 5.90 SOIL	02/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893103	MS\BH16 10.20 SOIL	02/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893104	MS\BH16 14.70 SOIL	02/07/21	PT 500ml		
1893105	MS\BH16 18.00 SOIL	05/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893106	MS\BH17 1.00 SOIL	07/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893107	MS\BH17 5.00 SOIL	07/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893108	MS\BH17 10.50 SOIL	07/07/21	PT 500ml	Organic Matter (Manual) (28 days)	
1893109	MS\BH17 14.50 SOIL	07/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1893110	MS\BH17 15.50 SOIL	07/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893111	MS\BH17 17.70 SOIL	07/07/21	PT 500ml		
1893112	MS\BH17 18.50 SOIL	07/07/21	PT 500ml	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893113	MS\BH02 2.00 SOIL	25/06/21	GJ 250ml x2, GJ 60ml x2, PT 1L x2	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	
1893114	MS\BH13 15.30 SOIL	06/07/21	GJ 250ml x2, GJ 60ml x2, PT 1L x2	Anions 2:1 (30 days), Total Sulphur ICP (7 days), Total Sulphate ICP (30 days), pH + Conductivity (7 days)	

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

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.