ALLIED EXPLORATION & GEOTECHNICS LIMITED

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH104	5.95	J3	Brown with grey veining slightly sandy slightly gravelly CLAY of high plasticity.	MC PI BRE
PRAIRIE_AUK_BH104	8.50	U8	High strength brown slightly sandy CLAY.	HSV
PRAIRIE_AUK_BH104	11.00	J13	Brown sandy CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH104	15.50	C21	Brown slightly sandy gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH104	17.50	C23	Brown slightly sandy gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH106	5.50	U2	Medium strength brown slightly sandy slightly gravelly CLAY.	UUT BRE OED
PRAIRIE_AUK_BH106	5.95	J3	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_BH106	7.00	B6	Brown slightly sandy slightly gravelly CLAY.	PSD SED
PRAIRIE_AUK_BH106	8.50	U8	Very high strength brown slightly sandy slightly gravelly CLAY.	UUT
PRAIRIE_AUK_BH106	9.50	J10	Grey sandy slightly gravelly CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH107	3.00	U2	Low strength fissured brown/grey silty CLAY of intermediate plasticity.	MC PI Density UUT
PRAIRIE_AUK_BH107	3.45	J3	Brown CLAY with occasional sand pockets.	BRE
PRAIRIE_AUK_BH107	4.00	B5	Brown CLAY.	CP2 CBR
PRAIRIE_AUK_BH107	5.00	U7	Medium strength laminated brown silty CLAY.	UUT
PRAIRIE_AUK_BH107	7.50	J12	Red brown slightly sandy CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH107	9.00	J19	Red brown CLAY with bands of white gypsum.	BRE
PRAIRIE_AUK_BH108	2.50	U2	High strength fissured brown CLAY of intermediate plasticity with occasional silt dustings.	MC PI HSV IS for UUT
PRAIRIE_AUK_BH108	2.95	J3	Brown CLAY of high plasticity.	MC PI
PRAIRIE_AUK_BH108	3.50	B5	Brown slightly sandy CLAY.	PSD SED PD
PRAIRIE_AUK_BH108	4.50	U7	Medium strength brown slightly sandy slightly gravelly CLAY becoming high strength with depth.	MC HSV
PRAIRIE_AUK_BH108	5.00	J9	Brown slightly sandy CLAY of low plasticity.	MC PI

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH108	6.50	J12	Brown sandy gravelly CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH108	7.00	B14	Brown slightly sandy slightly gravelly CLAY.	PSD SED BRE
PRAIRIE_AUK_BH108	8.00	J15	Brown sandy CLAY of low plasticity.	MC PI BRE
PRAIRIE_AUK_BH108	8.50	J16	Red brown slightly gravelly SAND. Gravel includes gypsum.	MC PI(NP)
PRAIRIE_AUK_BH108	9.00	J18	Red brown clayey SAND including gypsum.	BRE
PRAIRIE_AUK_BH109	0.50	B4	Brown slightly sandy slightly gravelly CLAY of intermediate plasticity. (Sample has a hydrocarbon odour).	MC PI CBR
PRAIRIE_AUK_BH109	1.20	U6	Medium strength brown silty slightly sandy CLAY becoming high strength with depth. (Sample has a hydrocarbon odour).	MC HSV
PRAIRIE_AUK_BH109	1.65	J7	Brown slightly sandy CLAY of intermediate plasticity. (Sample has a strong hydrocarbon odour).	MC PI
PRAIRIE_AUK_BH109	2.00	B10	Brown slightly sandy slightly gravelly CLAY. (Sample has a strong hydrocarbon odour).	PSD SED CP2 CBR
PRAIRIE_AUK_BH109	3.00	U13	Medium strength brown slightly sandy CLAY.	UUT
PRAIRIE_AUK_BH109	3.45	J14	Brown slightly sandy CLAY of intermediate plasticity.	MC PI US for Density
PRAIRIE_AUK_BH109	5.00	U19	Medium strength brown CLAY becoming high strength with depth.	HSV
PRAIRIE_AUK_BH109	6.00	J22	Blue black MUDSTONE.	MC PI(IS for LL)
PRAIRIE_AUK_BH110	3.00	U2	Low strength laminated brown silty CLAY of intermediate plasticity with occasional sand pockets.	MC PI UUT
PRAIRIE_AUK_BH110	4.00	B5	Brown slightly sandy slightly gravelly CLAY.	PSD SED
PRAIRIE_AUK_BH110	5.00	U6	Medium strength brown silty CLAY of intermediate plasticity.	MC PI UUT
PRAIRIE_AUK_BH110	6.50	B10	Brown slightly sandy slightly gravelly CLAY.	CP2 CBR
PRAIRIE_AUK_BH110	8.00	U12	Medium strength brown CLAY of low plasticity.	MC PI UUT
PRAIRIE_AUK_BH110	9.50	J15	Red brown slightly sandy CLAY of low plasticity.	MC PI
PRAIRIE_AUK_BH110	9.50	B16	Brown slightly sandy slightly gravelly CLAY.	PSD SED
PRAIRIE_AUK_BH110	11.00	U18	Extremely high strength brown slightly sandy slightly gravelly CLAY.	UUT

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LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH110	11.45	J19	Orange brown sandy slightly gravelly CLAY	BRE
PRAIRIE_AUK_BH110	13.50	J23	Brown slightly sandy slightly gravelly CLAY of low plasticity	MC PI
PRAIRIE_AUK_BH110	15.00	J27	Red brown MUDSTONE with white crystalline inclusions (possible gypsum)	MC BRE US for PI
PRAIRIE_AUK_TP101	0.60	J3	MADE GROUND (Brown slightly sandy gravel including brick fragments)	MC BRE Calorific Value
PRAIRIE_AUK_TP101	0.90	B4	MADE GROUND (Dark brown/black clayey/silty very sandy gravel including slag and brick fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP101	2.50	J10	Grey mottled slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP101	3.00	B11	Brown slightly sandy slightly gravelly CLAY.	CBR
PRAIRIE_AUK_TP101	4.40	J14	Brown slightly organic slightly sandy slightly gravelly SILT of very high plasticity	MC PI BRE
PRAIRIE_AUK_TP102	1.50	J6	Brown sandy CLAY of low plasticity	MC PI
PRAIRIE_AUK_TP102	3.00	B8	Brown slightly sandy slightly gravelly CLAY	PSD SED CBR
PRAIRIE_AUK_TP103	0.80	B2	MADE GROUND (Dark grey sandy gravel with a high cobble content Gravel includes slag, ash, concrete and clinker)	PSD
PRAIRIE_AUK_TP104	2.00	J8	Friable brown slightly sandy CLAY of intermediate plasticity	MC PI BRE
PRAIRIE_AUK_TP105	1.80	J4	Fissured brown slightly sandy slightly gravelly CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP105	2.00	B5	Brown slightly sandy slightly gravelly CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP106	1.00	B2	MADE GROUND (Dark grey clayey sandy gravel including ash, slag, ceramic and brick fragments).	PSD
PRAIRIE_AUK_TP106	2.50	J6	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP106	3.50	J8	Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP107	0.50	J3	Brown sandy slightly gravelly CLAY of intermediate plasticity with sand dustings	MC PI BRE
PRAIRIE_AUK_TP107	1.00	B4	Brown slightly sandy slightly gravelly CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP107	2.30	J8	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP108	0.80	B4	MADE GROUND (Grey slightly clayey sandy gravel with a high cobble content. Gravel includes metal, concrete and slag fragments)	PSD US for CP2

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Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP108	1.90	B7	MADE GROUND (Brown sandy gravel with a high cobble content. Gravel includes slag, ash, clinker and brick fragments)	PSD
PRAIRIE_AUK_TP110	1.60	B2	MADE GROUND (Brown clayey/silty very sandy gravel with a medium cobble content. Gravel includes slag and clinker)	PSD US for CP2 & CBR
PRAIRIE_AUK_TP110	2.50	J6	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP110	3.00	B8	Brown slightly sandy slightly gravelly CLAY	PSD SED CP2 CBR
PRAIRIE_AUK_TP111	1.60	B5	MADE GROUND (Brown clayey sandy gravel with a medium cobble content. Gravel includes slag, metal and brick fragments)	PSD SED US for CP2 & CBR
PRAIRIE_AUK_TP111	2.00	J6	Brown CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP112	1.00	J3	MADE GROUND (Dark grey sandy gravel including slag and brick fragments)	BRE Calorific Value
PRAIRIE_AUK_TP112	1.70	B5	MADE GROUND (Dark grey clayey/silty very sandy gravel including plastic, slag and ceramic fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP112	2.70	J9	Brown slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP112	3.00	J10	Brown slightly sandy CLAY/SILT of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP112	3.20	B11	Brown silty slightly sandy CLAY	PSD SED CP2
PRAIRIE_AUK_TP113	1.80	B6	White/grey sandy GRAVEL	PSD US for CP2
PRAIRIE_AUK_TP113	2.50	J7	Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP113	2.80	B8	Brown with grey mottling slightly sandy slightly gravelly CLAY	PSD SED CP2
PRAIRIE_AUK_TP114	0.40	B4	MADE GROUND (Brown clayey very sandy gravel including plastic, brick and metal fragments)	PSD US for CP2
PRAIRIE_AUK_TP115	1.40	J4	MADE GROUND (Grey slightly sandy gravel including slag fragments).	MC BRE Calorific Value
PRAIRIE_AUK_TP115	1.70	B5	MADE GROUND (Dark grey slightly clayey very sandy gravel)	PSD
PRAIRIE_AUK_TP116	1.60	J5	MADE GROUND (Brown slightly sandy slightly gravelly silt of intermediate plasticity. Gravel includes ceramic fragments).	MC PI BRE ORG
PRAIRIE_AUK_TP116	2.00	J7	Brown slightly sandy CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP116	2.50	B8	Brown slightly sandy CLAY	CP2 CBR
PRAIRIE_AUK_TP116	3.00	J9	Reddish brown slightly sandy slightly gravelly CLAY of intermediate plasticity	MC PI

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Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP116	3.50	B10	Red brown slightly sandy slightly gravelly CLAY.	CP2 CBR
PRAIRIE_AUK_TP117	1.50	J4	MADE GROUND (Grey slightly sandy gravel including slag fragments).	MC
PRAIRIE_AUK_TP117	2.00	B5	MADE GROUND (Brown slightly clayey sandy gravel with a high cobble content and occasional clay pockets. Gravel includes slag fragments).	PSD US for CP2
PRAIRIE_AUK_TP117	3.20	B9	MADE GROUND (Brown clayey sandy gravel with a high cobble content. Gravel includes slag).	PSD
PRAIRIE_AUK_TP118	0.50	J1	MADE GROUND (Grey slightly sandy gravel including slag fragments).	MC
PRAIRIE_AUK_TP118	1.00	B2	MADE GROUND (Brown clayey/silty very sandy gravel including slag fragments).	PSD
PRAIRIE_AUK_TP118	1.50	J4	Brown slightly sandy CLAY/SILT of intermediate plasticity.	MC PI ORG
PRAIRIE_AUK_TP118	2.20	J6	Brown CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP118	2.50	B7	Brown slightly sandy CLAY.	CP2
PRAIRIE_AUK_TP119	0.50	J1	MADE GROUND (Brown sandy gravel including slag fragments).	MC
PRAIRIE_AUK_TP119	1.00	B2	MADE GROUND (Brown slightly clayey/silty sandy gravel including slag fragments)	PSD
PRAIRIE_AUK_TP119	2.00	B5	MADE GROUND (Brown slightly clayey/silty very sandy gravel including ash and clinker)	PSD CP2 CBR
PRAIRIE_AUK_TP119	2.50	J6	Brown slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP119	3.00	B8	Brown with orange mottling silty CLAY.	CP2 CBR
PRAIRIE_AUK_TP120	0.50	J1	MADE GROUND (Brown gravelly sand. Gravel includes slag fragments).	Calorific Value
PRAIRIE_AUK_TP120A	0.80	B2	MADE GROUND (Dark brown clayey very sandy gravel including glass and ash).	PSD
PRAIRIE_AUK_TP120A	1.50	J4	Brown gravelly SAND.	MC PI(NP)
PRAIRIE_AUK_TP120A	1.60	B5	Brown sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP121	0.80	B2	MADE GROUND (Dark brown clayey very sandy gravel including slag and concrete fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP123	0.50	B2	MADE GROUND (Grey brown cobbles of bricks).	PSD US for CBR
PRAIRIE_AUK_TP124	1.00	J3	MADE GROUND (Brown slightly sandy gravel with occasional clay pockets. Gravel includes brick fragments).	MC Calorific Value

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Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP124	1.50	B4	MADE GROUND (Dark grey clayey very gravelly sand. Gravel includes ash, slag and brick fragments).	PSD CP2
PRAIRIE_AUK_TP124	2.00	J6	Brown with grey mottling slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP126	1.80	B4	MADE GROUND (Grey cobbles of slag and brick)	PSD
PRAIRIE_AUK_TP131	1.00	J3	MADE GROUND (Brown slightly sandy gravel including brick fragments)	MC
PRAIRIE_AUK_TP131	2.60	J7	Brown slightly gravelly CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP131	3.60	J9	Fissured brown slightly silty CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP131	3.80	B10	Brown slightly sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP132	0.50	J2	MADE GROUND (Brown slightly sandy gravel including slag and brick fragments)	Calorific Value
PRAIRIE_AUK_TP132	2.00	B6	MADE GROUND (Grey sandy gravel with a medium cobble content. Gravel includes concrete, slag and glass fragments)	PSD US for CP2 & CP4
PRAIRIE_AUK_TP134	0.60	B2	MADE GROUND (Dark grey clayey very sandy gravel with a medium cobble content. Gravel includes slag, ash and brick fragments)	PSD
PRAIRIE_AUK_TP134	1.50	J4	Brown CLAY/SILT of intermediate plasticity with occasional silt pockets.	MC PI
PRAIRIE_AUK_TP135	1.00	B3	MADE GROUND (Grey slightly clayey very sandy gravel including slag, concrete and brick fragments)	PSD
PRAIRIE_AUK_TP135	2.00	J7	Brown CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP135	2.70	J9	Brown slightly silty CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP136	1.00	J4	Red brown slightly sandy slightly gravelly SILT of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP137	0.60	J3	MADE GROUND (Grey slightly sandy gravel including slag fragments)	MC
PRAIRIE_AUK_TP137	1.00	B4	MADE GROUND (Brown clayey sandy gravel including ash, clinker, slag and metal fragments)	PSD US for CP2
PRAIRIE_AUK_TP137	2.00	B7	Brown sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP137	2.60	J8	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP138	1.00	B2	MADE GROUND (Brown slightly clayey very sandy gravel with a high cobble content. Gravel includes ceramic, ash and brick fragments)	PSD
PRAIRIE_AUK_TP139B	0.20	B2	MADE GROUND (Dark grey clayey very sandy gravel including ash, slag and brick fragments)	PSD

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Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP139B	3.00	J4	Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP145	1.00	B3	MADE GROUND (Grey clayey very sandy gravel including ash, concrete and slag fragments).	PSD CP2
PRAIRIE_AUK_TP145	1.90	J5	Grey slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP145	2.40	B6	Brown slightly sandy slightly gravelly CLAY	CP2 CBR
PRAIRIE_AUK_TP145	2.90	J7	Laminated brown CLAY of high plasticity with silt dustings on laminae.	MC PI
PRAIRIE_AUK_TP146C	1.00	J4	MADE GROUND (Brown gravel with occasional clay pockets. Gravel includes brick fragments).	MC Calorific Value US for PI
PRAIRIE_AUK_TP146C	1.30	B6	MADE GROUND (Brown very sandy gravel with occasional clay pockets. Gravel includes brick fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP146C	1.70	J7	Fissured brown CLAY of high plasticity	MC PI
PRAIRIE_AUK_TP146C	2.30	B8	Brown slightly sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP149	1.00	B2	MADE GROUND (Brown clayey very sandy gravel including slag fragments).	PSD
PRAIRIE_AUK_TP149	1.80	J4	Brown slightly sandy CLAY of intermediate to high plasticity	MC PI BRE
PRAIRIE_AUK_TP149	2.20	B5	Brown silty CLAY.	PSD SED CP2 CBR
PRAIRIE_AUK_TP150	0.60	B2	MADE GROUND (Dark grey clayey very sandy gravel with a medium cobble content. Gravel includes slag, ash, concrete, glass, metal and brick fragments).	PSD
PRAIRIE_AUK_TP154	0.60	J1	Grey gravelly SAND.	BRE Calorific Value
PRAIRIE_AUK_TP154	1.30	J4	Brown slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP154	1.60	B5	Brown slightly sandy CLAY	CP2
PRAIRIE_AUK_TP154	2.30	J6	Brown slightly sandy CLAY of intermediate plasticity	MC PI
PRAIRIE_AUK_TP155	0.50	B2	MADE GROUND (Dark grey slightly clayey sandy gravel with a medium cobble content. Gravel includes ash, slag and brick fragments).	PSD
PRAIRIE_AUK_TP155	1.20	J4	Brown slightly sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP155	1.60	B5	Brown silty slightly sandy CLAY	PSD SED
PRAIRIE_AUK_TP156A	0.70	B4	MADE GROUND (Grey cobbles of concrete with much gravelly clay/silt)	PSD US for CP2 & CBR

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Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP156A	1.10	J5	Brown sandy CLAY of low plasticity	MC PI
PRAIRIE_AUK_TP162	0.70	J1	MADE GROUND (Brown sandy gravel with occasional clay pockets).	BRE Calorific Value
PRAIRIE_AUK_TP162	0.90	B2	MADE GROUND (Brown clayey very sandy gravel including glass, slag and brick fragments).	PSD
PRAIRIE_AUK_TP162	2.50	B6	Brown slightly sandy CLAY of high plasticity.	MC PI PSD SED CP2 CBR
PRAIRIE_AUK_TP162	3.10	J7	Fissured brown silty CLAY of high plasticity	MC PI BRE
PRAIRIE_AUK_TP163	0.50	J1	MADE GROUND (Dark brown slightly sandy gravel with occasional clay pockets. Gravel includes brick fragments)	MC US for PI
PRAIRIE_AUK_TP163	0.80	B2	MADE GROUND (Brown clayey very sandy gravel including ash and clinker)	PSD CP2 CBR
PRAIRIE_AUK_TP163	1.60	J4	Grey brown slightly sandy CLAY of intermediate plasticity	MC PI BRE
PRAIRIE_AUK_TP163	1.70	B5	Brown slightly sandy CLAY.	CP2 CBR
PRAIRIE_AUK_TP165	1.50	J4	MADE GROUND (Brown slightly sandy gravel including brick fragments).	BRE
PRAIRIE_AUK_TP165	1.80	B5	MADE GROUND (Dark brown slightly clayey/silty sandy gravel and cobbles including brick, slag and concrete fragments)	PSD US for CP4 & CBR
PRAIRIE_AUK_TP165	2.50	J6	MADE GROUND (Brown slightly sandy gravel including brick fragments).	Calorific Value
PRAIRIE_AUK_TP165	2.80	B7	MADE GROUND (Dark grey brown sandy gravel with occasional clay pockets and a medium cobble content. Gravel includes ash, slag and brick fragments).	PSD
PRAIRIE_AUK_TP167	1.80	B4	MADE GROUND (Dark grey slightly clayey/silty sandy gravel with a medium cobble content. Gravel includes slag, brick and concrete fragments).	PSD
PRAIRIE_AUK_TP168	1.40	J6	Fissured brown slightly sandy CLAY.	MC
PRAIRIE_AUK_TP168	1.60	B7	Brown slightly sandy CLAY.	PSD SED CP2 CBR
PRAIRIE_AUK_TP169	0.80	B2	MADE GROUND (Brown clayey very sandy gravel including ash, slag and brick fragments).	PSD US for CP4
PRAIRIE_AUK_TP172	0.60	B2	MADE GROUND (Dark grey brown cobbles of brick and slag fragments).	PSD US for CP2 & CBR
PRAIRIE_AUK_TP173	0.60	J1	MADE GROUND (Brown slightly sandy gravel including brick fragments).	MC BRE
PRAIRIE_AUK_TP173	0.80	B2	MADE GROUND (Brown very sandy gravel with clay pockets).	PSD SED CP2 CBR
PRAIRIE_AUK_TP174	1.20	J4	Brown slightly sandy CLAY of low to intermediate plasticity with occasional sand pockets.	MC PI

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Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP175	0.60	B2	MADE GROUND (Grey brown clayey sandy cobbles of brick, slag and concrete fragments).	PSD US for CBR
PRAIRIE_AUK_TP175	1.40	J4	Grey slightly sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP176	0.50	B2	MADE GROUND (Brown clayey sandy gravel including ash and clinker fragments).	PSD
PRAIRIE_AUK_TP176	1.50	J4	Brown slightly organic slightly sandy CLAY.	MC BRE
PRAIRIE_AUK_TP176	2.00	B5	Brown slightly sandy CLAY.	PSD SED CP2 CBR
PRAIRIE_AUK_TP177	0.50	J4	MADE GROUND (Brown slightly sandy clay of high plasticity).	MC PI
PRAIRIE_AUK_TP177	1.60	B7	MADE GROUND (Brown cobbles with much gravel).	PSD US for CP2 & CBR
PRAIRIE_AUK_TP178	0.40	J1	MADE GROUND (Dark brown slightly sandy gravel including brick fragments).	MC BRE Calorific Value
PRAIRIE_AUK_TP178	0.60	B2	MADE GROUND (Brown clayey very sandy gravel including ash, clinker and slag fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP178	1.60	B5	Brown with grey mottling slightly sandy slightly gravelly CLAY of very high plasticity.	MC PI BRE CP2
PRAIRIE_AUK_TP179	0.20	J1	MADE GROUND (Dark brown sandy gravel including brick fragments).	BRE Calorific Value
PRAIRIE_AUK_TP179	0.40	B2	MADE GROUND (Dark grey clayey/silty very gravelly sand with a medium cobble content. Gravel includes ash, clinker, slag and brick fragments).	PSD CP2
PRAIRIE_AUK_TP179	1.70	J5	Brown with grey veining slightly sandy CLAY of high plasticity.	MC PI
PRAIRIE_AUK_TP179	1.80	B6	Brown CLAY.	IS for CBR
PRAIRIE_AUK_TP181	0.50	B2	MADE GROUND (Brown very sandy gravel with occasional clay pockets. Gravel includes ash and clinker fragments).	PSD CBR US for CP2
PRAIRIE_AUK_TP181	1.10	B4	MADE GROUND (Brown cobbles of brick and slag fragments).	PSD
PRAIRIE_AUK_TP181	1.60	J5	Grey slightly silty sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP181	2.00	B6	Brown with grey veining slightly sandy CLAY.	CBR
PRAIRIE_AUK_TP182	0.30	J1	MADE GROUND (Dark brown sandy gravel including brick fragments).	Calorific Value
PRAIRIE_AUK_TP182	0.60	B2	MADE GROUND (Dark grey clayey very sandy gravel including slag fragments).	PSD CP2 CBR
PRAIRIE_AUK_TP182	1.30	J4	Fissured brown slightly sandy slightly gravelly CLAY of intermediate plasticity.	MC PI

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed :-	Name :-	Page 10 of 11
Date of issue :- 06/11/2020	Certificate No :- SG4251/10	AEG Contract No :- 4251

UKAS TESTING 1357

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: [illegible] Tel: [illegible] Fax: [illegible]
Registered Office: [illegible] Tel: [illegible] Fax: [illegible]

LABORATORY SAMPLE DESCRIPTION SHEET

Exploratory Hole No.	Sample Depth (m)	ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_TP182	1.60	B5	Brown with grey veining slightly sandy CLAY. (Sample has a strong hydro-carbon odour)	CBR
PRAIRIE_AUK_TP183	0.80	B2	MADE GROUND (Grey cobbles of concrete, slag and brick fragments).	PSD
PRAIRIE_AUK_TP185	3.50	B2	MADE GROUND (Brown slightly sandy slightly gravelly clay. Gravel includes brick and metal fragments)	PSD SED
PRAIRIE_AUK_TP188	0.40	J1	MADE GROUND (Dark brown sandy gravel including brick fragments).	MC BRE Calorific Value
PRAIRIE_AUK_TP188	0.60	B2	MADE GROUND (Dark brown clayey/silty sandy gravel including ash and clinker fragments)	PSD US for CP2 & CBR
PRAIRIE_AUK_TP189	0.30	J1	MADE GROUND (Brown slightly sandy gravel).	Calorific Value
PRAIRIE_AUK_TP189	0.50	B2	MADE GROUND (Dark brown clayey/silty very sandy gravel including slag and brick fragments).	PSD CBR
PRAIRIE_AUK_TP189	1.40	J3	Brown slightly sandy CLAY of high plasticity.	MC PI BRE
PRAIRIE_AUK_TP189	1.50	B4	Grey brown mottled slightly sandy slightly gravelly CLAY.	PSD SED CP2
PRAIRIE_AUK_TP189	2.70	J5	Red brown slightly sandy CLAY of intermediate plasticity.	MC PI
PRAIRIE_AUK_TP189	2.90	B6	Brown with grey veining slightly sandy slightly gravelly CLAY.	PSD SED CP2

Contract Title:- Prairie Site Ground Investigation Works

Client:- South Tees Development Corporation

Signed:-

Name:-

Date of issue:- 03/11/2020

Certificate No:- SD/4251/11

AEG Contract No:- 4251

UKAS TESTING 1367

LABORATORY TESTING ENCLOSURE 2

Moisture Content/Plasticity Index and Moisture Content

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: [illegible]
Regional Office: [illegible]

MOISTURE CONTENT CERTIFICATE

BS 1377 : Part 2 : Clause 3.2

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Moisture Content (%)	Date Tested	Remarks
PRAIRIE_AUK_BH101	18.00	J33	18.00	16.6	17/06/2020	
PRAIRIE_AUK_BH108	4.50	U7	4.50	23.7	10/07/2020	
PRAIRIE_AUK_BH109	1.20	U6	1.20	21.8	10/07/2020	
PRAIRIE_AUK_BH110	15.00	J27	15.00	25.1	10/07/2020	
PRAIRIE_AUK_TP101	0.60	J3	0.60	14.4	28/09/2020	
PRAIRIE_AUK_TP115	1.40	J4	1.40	8.3	06/10/2020	
PRAIRIE_AUK_TP117	1.50	J4	1.50	11.8	06/10/2020	
PRAIRIE_AUK_TP118	0.50	J1	0.50	14.3	12/10/2020	
PRAIRIE_AUK_TP119	0.50	J1	0.50	7	19/10/2020	
PRAIRIE_AUK_TP124	1.00	J3	1.00	15.9	28/09/2020	
PRAIRIE_AUK_TP131	1.00	J3	1.00	12.2	29/09/2020	
PRAIRIE_AUK_TP137	0.60	J3	0.60	18	12/10/2020	
PRAIRIE_AUK_TP148C	1.00	J4	1.00	24.4	29/09/2020	
PRAIRIE_AUK_TP163	0.50	J1	0.50	14.6	30/09/2020	
PRAIRIE_AUK_TP168	1.40	J6	1.40	32.8	29/09/2020	
PRAIRIE_AUK_TP171	0.60	J1	0.60	20.9	29/09/2020	
PRAIRIE_AUK_TP176	1.50	J4	1.50	36.2	29/09/2020	
PRAIRIE_AUK_TP179	0.40	J1	0.40	27.7	29/09/2020	
PRAIRIE_AUK_TP182	1.30	J4	1.30	21.8	29/09/2020	
PRAIRIE_AUK_TP189	0.40	J1	0.40	16.1	29/09/2020	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :- msone

Name :-

Date of issue :- 02/11/2020

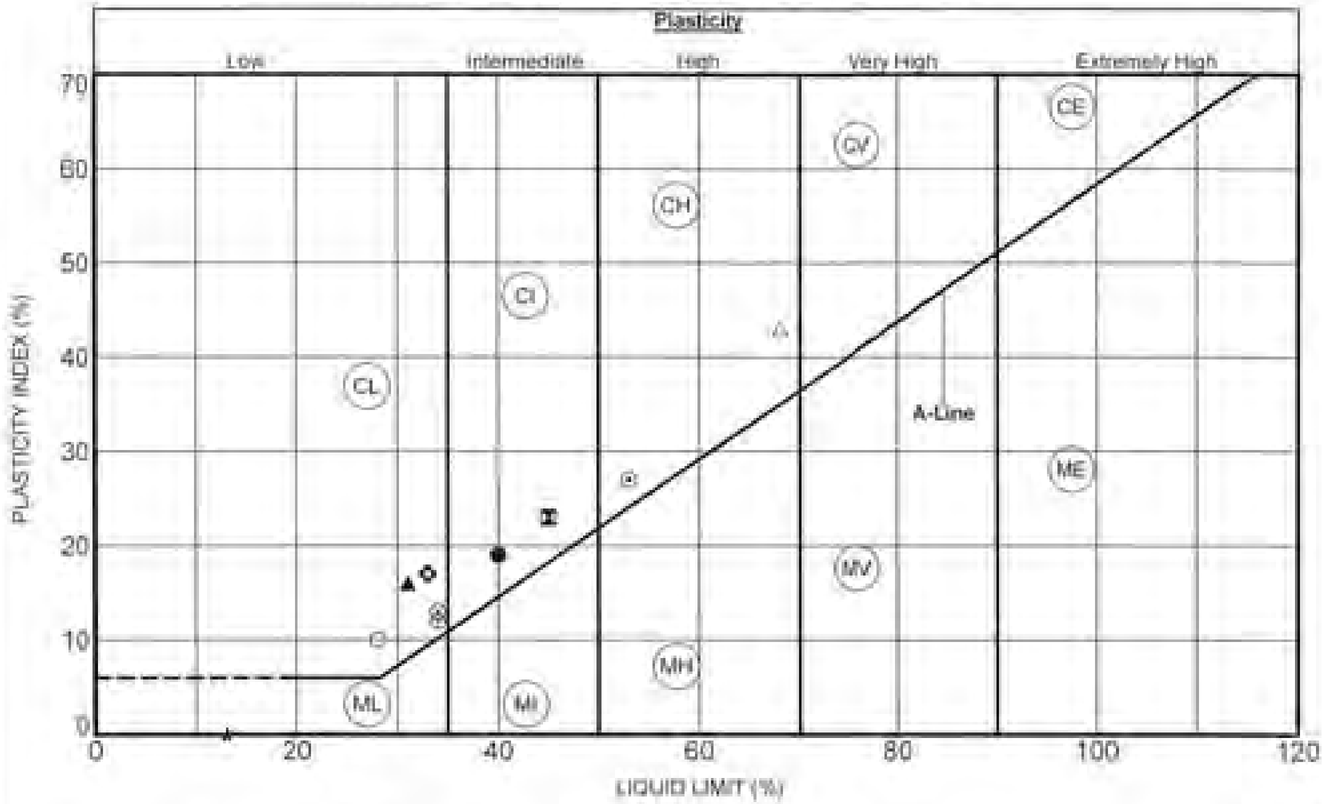
Certificate No :- MC/4251/1

AEG Contract No. :- 4251

UKAS TESTING 1367

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested	
● PRAIRIE_AUK_BH101	3.00	U2	3.25	40	21	19	0.20	Natural		24.8	17/06/2020	
⌶ PRAIRIE_AUK_BH101	5.00	U7	5.17	45	22	23	0.51	Natural		33.7	17/06/2020	
▲ PRAIRIE_AUK_BH101	11.00	U18	11.25	31	15	16	0.04	Natural		15.7	17/06/2020	
★ PRAIRIE_AUK_BH101	12.50	J21	12.50		13			Natural		12.0	17/06/2020	
⊙ PRAIRIE_AUK_BH103	2.95	J3	2.95	53	26	27	0.01	Natural		26.2	06/10/2020	
✪ PRAIRIE_AUK_BH103	8.50	J18	8.50	33	16	17	0.00	Natural		16.0	06/10/2020	
○ PRAIRIE_AUK_BH100	13.00	J27	13.00	28	18	10	0.61	Natural		24.1	06/10/2020	#
△ PRAIRIE_AUK_BH104	5.95	J3	5.95	68	25	43	-0.03	Natural		23.7	19/10/2020	
⊛ PRAIRIE_AUK_BH104	11.00	J13	11.00	34	21	13	-0.26	Natural		17.6	20/10/2020	
⊚ PRAIRIE_AUK_BH104	15.50	C21	16.50	34	22	12	-1.09	Air Dried	49.0	8.9	12/10/2020	

For description of sample please refer to the Laboratory Sample Description Sheet # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :- msone

Name:-

Date of Issue: - 03/11/2020

Certificate No:- PI/4251/1

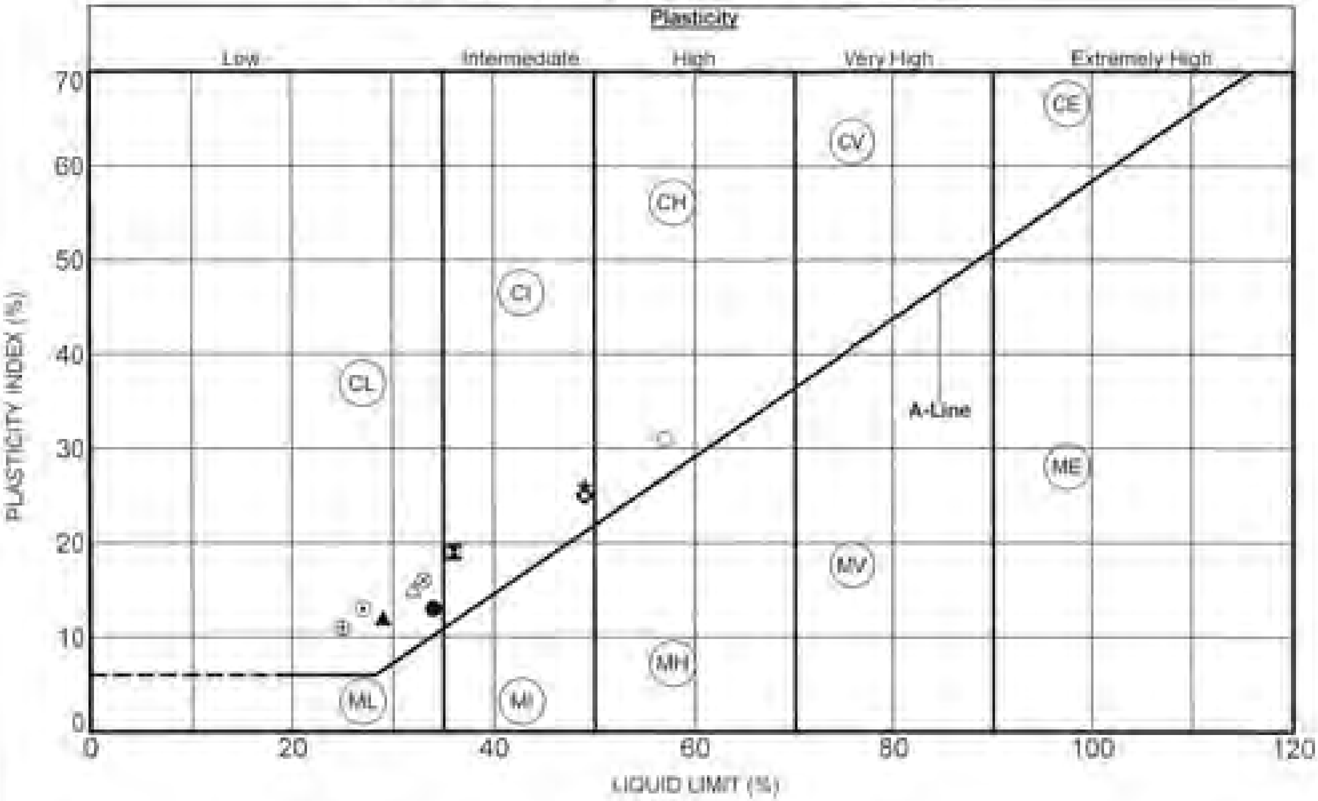
AEG Contract No. :- 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested	
● PRAIRIE_AUK_BH104	17.50	C23	18.00	34	21	13	-1.07	Air Dried	36.0	7.1	12/10/2020	
PRAIRIE_AUK_BH106	5.95	J3	5.95	36	17	19	-0.08	Natural		15.5	06/10/2020	
▲ PRAIRIE_AUK_BH106	9.50	J10	9.50	29	17	12	-0.10	Natural		15.8	06/10/2020	
★ PRAIRIE_AUK_BH107	3.00	U2	3.35	49	23	26	0.55	Natural		37.3	10/07/2020	
PRAIRIE_AUK_BH107	7.50	J12	7.50	27	14	13	0.18	Natural		16.3	10/07/2020	
PRAIRIE_AUK_BH108	2.50	U2	2.55	49	24	25	0.07	Natural		25.8	10/07/2020	
PRAIRIE_AUK_BH108	2.95	J3	2.95	57	26	31	0.13	Natural		30.0	06/10/2020	
PRAIRIE_AUK_BH108	5.00	J9	5.00	32	17	15	-0.09	Natural		15.6	10/07/2020	
PRAIRIE_AUK_BH108	6.50	J12	6.50	33	17	16	-0.39	Air Dried	35.0	10.7	10/07/2020	#
PRAIRIE_AUK_BH108	8.00	J15	8.00	25	14	11	-0.17	Natural		12.1	06/10/2020	

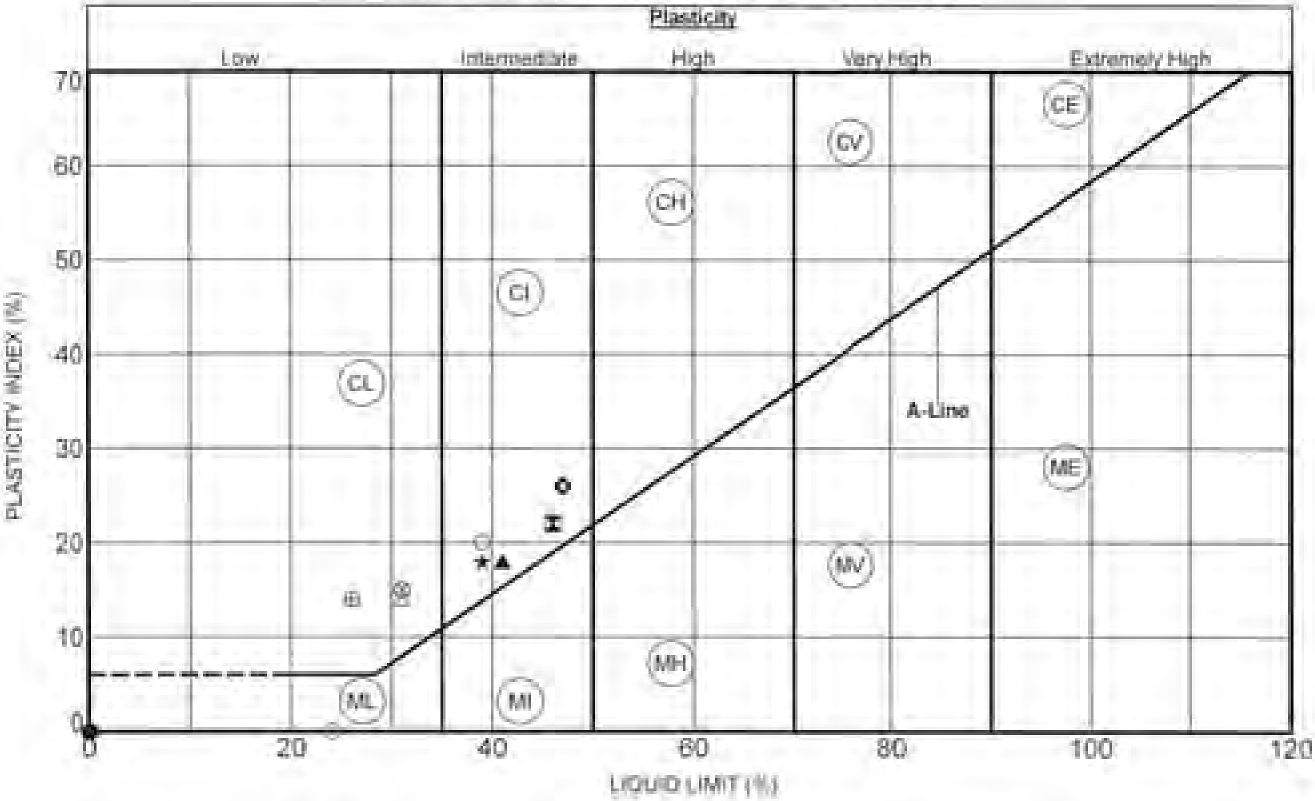
For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed :- [signature]	Name :-	Page 2 of 6	UKAS TESTING 1367
Date of issue :- 03/11/2020	Certificate No :- PI/4251/2	AEG Contract No :- 4251	

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
PRAIRIE_AUK_BH108	8.50	J16	8.50	NP	NP	NP		Natural		15.3	10/07/2020
PRAIRIE_AUK_BH109	0.50	B4	0.50	46	24	22	0.00	Natural		23.9	13/07/2020
PRAIRIE_AUK_BH109	1.65	J7	1.65	41	23	18	0.12	Natural		25.1	10/07/2020
PRAIRIE_AUK_BH109	3.45	J14	3.45	39	21	18	0.11	Natural		23.0	10/07/2020
PRAIRIE_AUK_BH109	6.00	J22	6.00	[illegible]	24			Air Dried	39.0	10.8	10/07/2020
PRAIRIE_AUK_BH110	3.00	U2	3.00	47	21	26	0.31	Natural		29.1	13/07/2020
PRAIRIE_AUK_BH110	5.00	U6	5.35	39	19	20	0.21	Natural		23.2	10/07/2020
PRAIRIE_AUK_BH110	8.00	U12	8.35	31	17	14	0.85	Natural		28.9	10/07/2020
PRAIRIE_AUK_BH110	9.50	J15	9.50	31	16	15	-0.23	Natural		12.6	10/07/2020
PRAIRIE_AUK_BH110	13.50	J23	13.50	26	12	14	0.04	Natural		12.6	10/07/2020

For description of sample please refer to the Laboratory Sample Description Sheet # = Insufficient for 4 point PI
sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

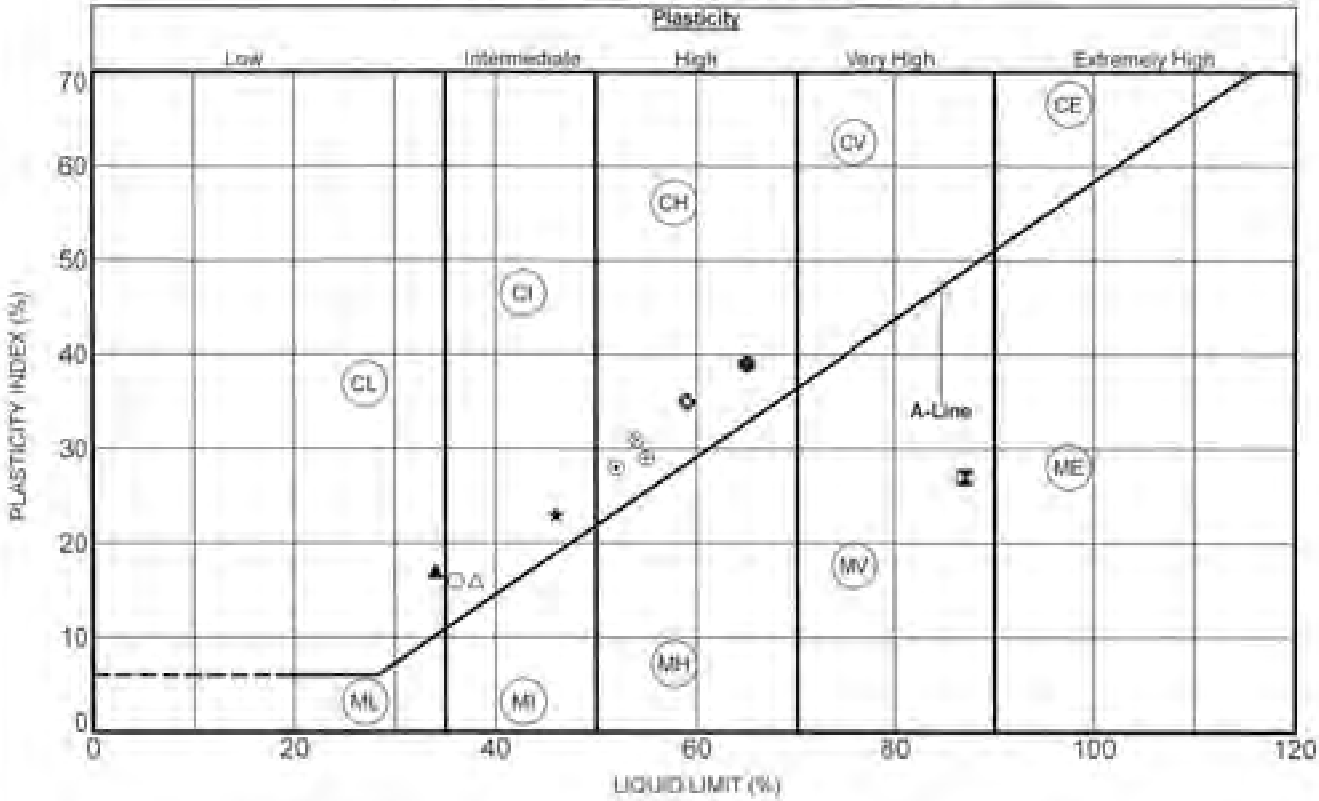
Signed :-	Name :-	Page 3 of 8
Date of issue :- 03/11/2020	Certificate No :- PI/4251/3	AEG Contract No :- 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested	
● PRAIRIE_AUK_TP101	2.50	J10	2.50	65	26	39	-0.35	Natural		12.2	28/09/2020	
⧗ PRAIRIE_AUK_TP101	4.40	J14	4.40	87	60	27	1.07	Natural		89.0	28/09/2020	#
▲ PRAIRIE_AUK_TP102	1.50	J6	1.50	34	17	17	0.05	Natural		17.8	06/10/2020	#
★ PRAIRIE_AUK_TP104	2.00	J8	2.00	46	23	23	-0.08	Natural		21.2	28/09/2020	#
⊙ PRAIRIE_AUK_TP105	1.80	J4	1.80	52	24	28	0.22	Natural		30.1	28/09/2020	
✪ PRAIRIE_AUK_TP106	2.50	J6	2.50	59	24	35	0.06	Natural		26.2	06/10/2020	#
□ PRAIRIE_AUK_TP106	3.50	J8	3.50	36	20	16	-0.23	Natural		16.3	06/10/2020	#
△ PRAIRIE_AUK_TP107	0.50	J3	0.50	38	22	16	-0.02	Natural		21.7	29/09/2020	#
⊗ PRAIRIE_AUK_TP107	2.30	J6	2.30	54	23	31	0.13	Natural		27.1	29/09/2020	
⊕ PRAIRIE_AUK_TP110	2.50	J6	2.50	55	26	29	0.24	Natural		32.9	06/10/2020	#

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI

If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed :-	Name :-	Page 4 of 8
Date of issue :- 03/11/2020	Certificate No :- PI/4251/4	AEG Contract No :- 4251

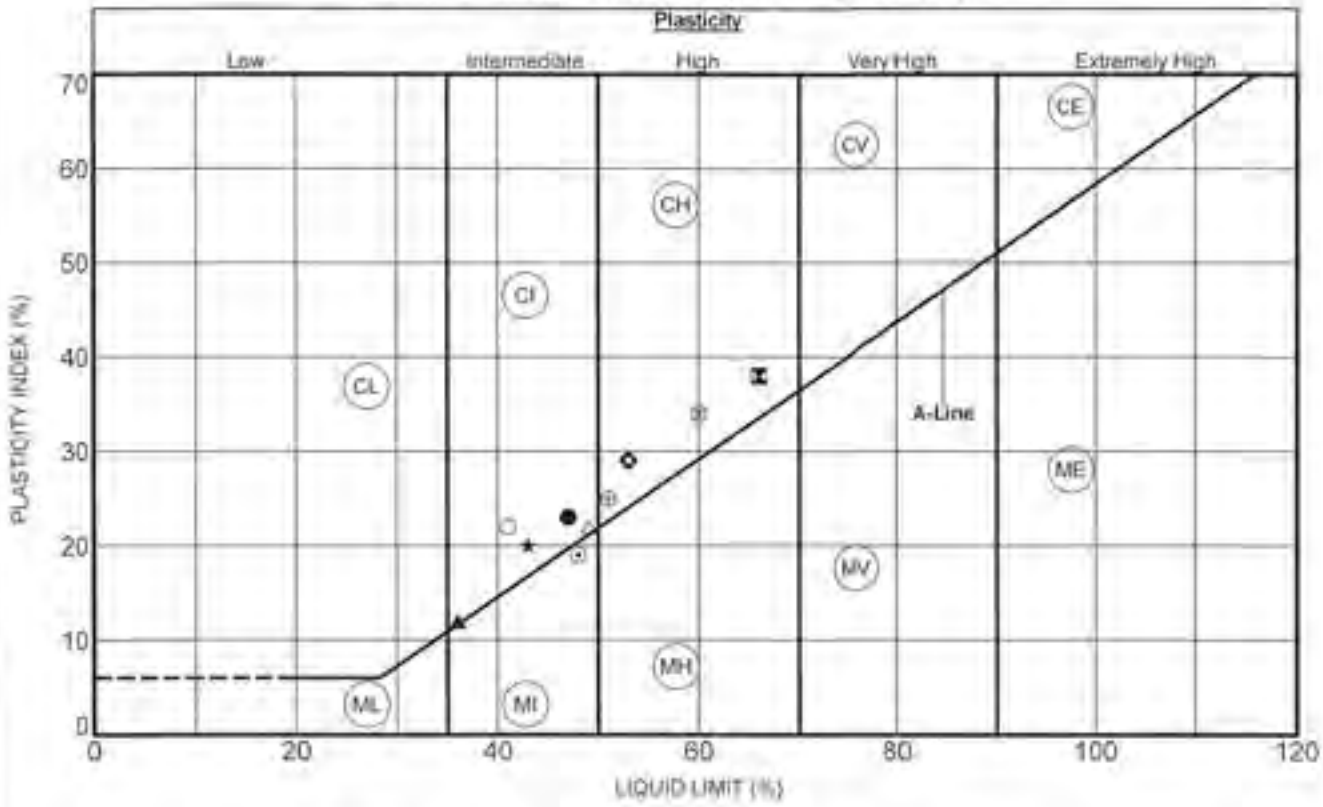
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office [illegible] Tel [illegible] Fax [illegible]
Regional Office [illegible] Tel [illegible] Fax [illegible]

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested	
● PRAIRIE_AUK_TP111	2.00	J6	2.00	47	24	23	-0.10	Natural		21.8	06/10/2020	#
⧗ PRAIRIE_AUK_TP112	2.70	J9	2.70	66	28	38	0.07	Natural		30.6	06/10/2020	
▲ PRAIRIE_AUK_TP112	3.00	J10	3.00	36	24	12	0.32	Natural		27.8	06/10/2020	
★ PRAIRIE_AUK_TP113	2.50	J7	2.50	43	23	20	0.20	Natural		26.9	28/09/2020	
⊗ PRAIRIE_AUK_TP116	1.60	J5	1.60	48	29	19	-0.12	Natural		26.8	20/10/2020	
◇ PRAIRIE_AUK_TP116	2.00	J7	2.00	53	24	29	0.03	Air Dried	99.0	24.9	20/10/2020	
○ PRAIRIE_AUK_TP116	3.00	J9	3.00	41	19	22	-0.07	Natural		17.5	20/10/2020	
△ PRAIRIE_AUK_TP118	1.50	J4	1.50	49	27	22	0.16	Natural		30.6	12/10/2020	#
⊕ PRAIRIE_AUK_TP118	2.20	J6	2.20	60	26	34	0.23	Natural		33.8	12/10/2020	#
⊖ PRAIRIE_AUK_TP119	2.50	J6	2.50	51	26	25	0.12	Natural		29.1	06/10/2020	#

For description of sample please refer to the Laboratory Sample Description Sheet. # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

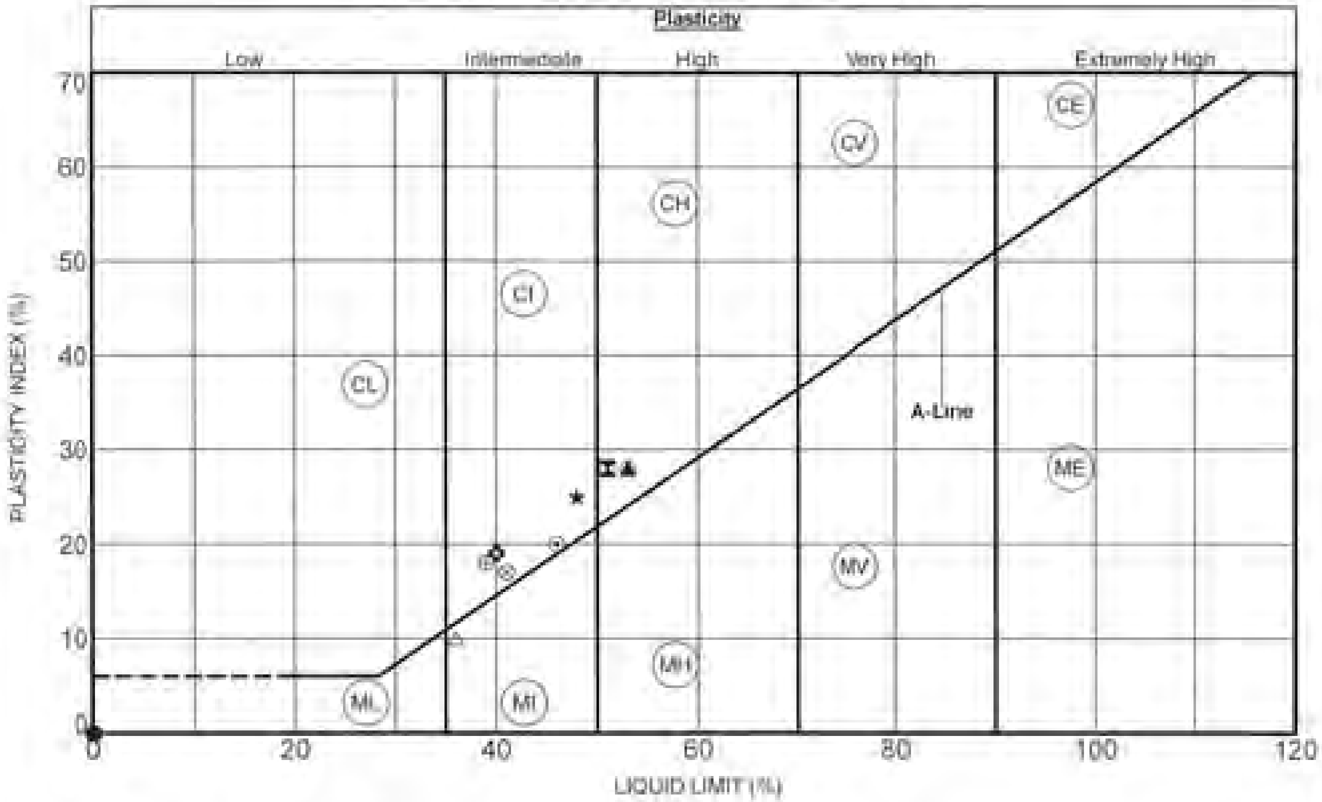
Signed :-	Name :-		Page 5 of 8
Date of issue :- 03/11/2020	Certificate No :- PI/4251/5	AEG Contract No :- 4251	

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested	
● PRAIRIE_AUK_TP120	1.50	J4	1.50	NP	NP	NP		Natural		16.8	06/10/2020	
⌶ PRAIRIE_AUK_TP124	2.00	J6	2.00	51	23	28	0.08	Natural		25.1	28/09/2020	
▲ PRAIRIE_AUK_TP131	2.60	J7	2.60	53	25	28	0.19	Natural		30.2	28/09/2020	
★ PRAIRIE_AUK_TP131	3.60	J9	3.60	48	23	25	0.21	Natural		28.3	28/09/2020	
⊙ PRAIRIE_AUK_TP134	1.50	J4	1.50	46	26	20	-0.09	Natural		24.2	12/10/2020	#
✪ PRAIRIE_AUK_TP135	2.00	J7	2.00	40	21	19	0.15	Natural		23.8	06/10/2020	#
○ PRAIRIE_AUK_TP135	2.70	J9	2.70	53	25	28	-0.02	Natural		24.5	08/10/2020	#
△ PRAIRIE_AUK_TP136	1.00	J4	1.00	36	26	10	0.53	Natural		31.3	12/10/2020	#
⊗ PRAIRIE_AUK_TP137	2.60	J8	2.60	41	24	17	0.22	Natural		27.8	06/10/2020	
⊕ PRAIRIE_AUK_TP139	3.00	J4	3.00	39	21	18	0.54	Natural		30.8	05/10/2020	

For description of sample please refer to the Laboratory Sample Description Sheet, # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :- [signature]

Name :-

Date of issue :- 03/11/2020

Certificate No :- R/4251/6

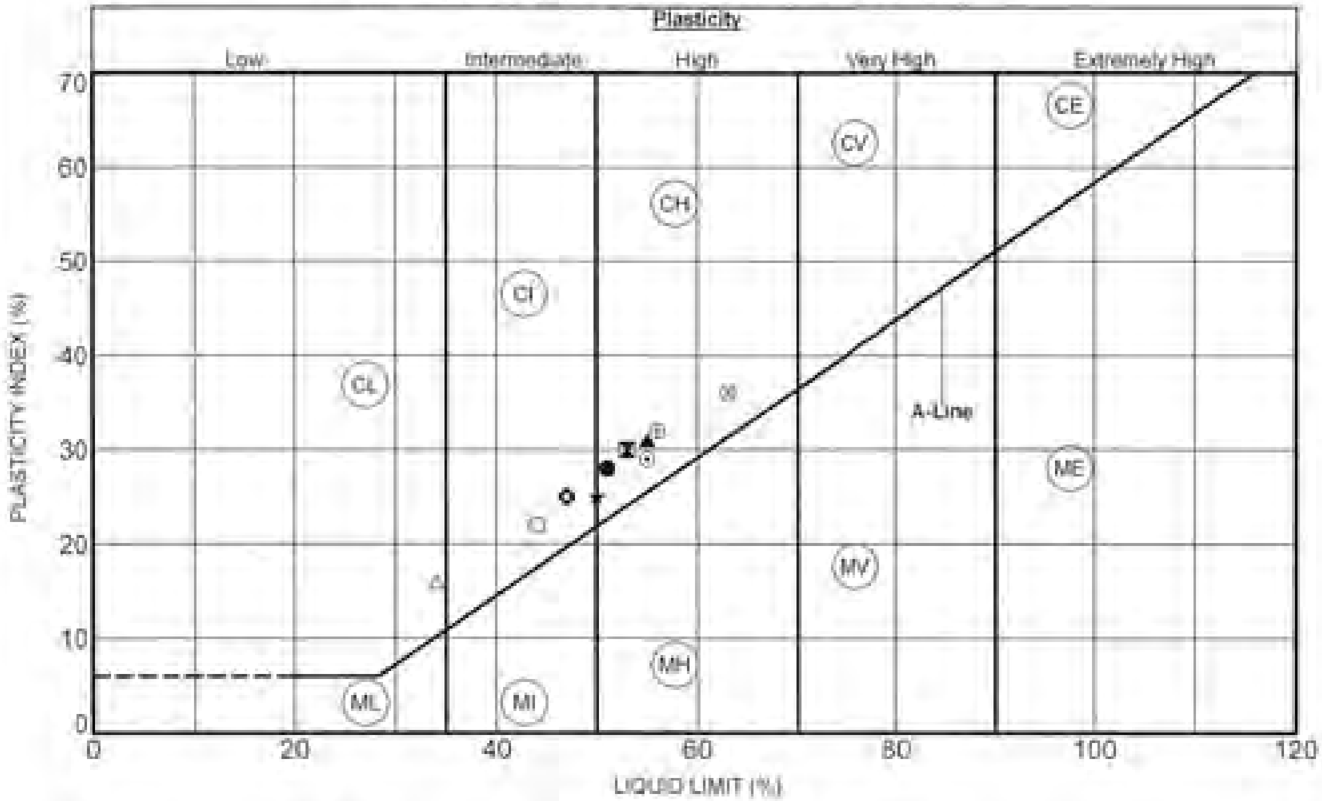
AEG Contract No :- 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref.	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested	
● PRAIRIE_AUK_TP145	1.90	J5	1.90	51	23	28	0.01	Natural		23.4	29/09/2020	
⧗ PRAIRIE_AUK_TP145	2.90	J7	2.90	53	23	30	0.24	Natural		30.2	29/09/2020	#
▲ PRAIRIE_AUK_TP146	1.70	J7	1.70	55	24	31	0.09	Natural		26.8	29/09/2020	#
★ PRAIRIE_AUK_TP149	1.80	J4	1.80	50	25	25	0.20	Natural		29.9	06/10/2020	#
⊙ PRAIRIE_AUK_TP154	1.30	J4	1.30	55	26	29	0.04	Natural		27.2	06/10/2020	
✿ PRAIRIE_AUK_TP154	2.30	J6	2.30	47	22	25	0.03	Natural		22.8	05/10/2020	
□ PRAIRIE_AUK_TP155	1.20	J4	1.20	44	22	22	-0.19	Natural		17.8	12/10/2020	
△ PRAIRIE_AUK_TP158	1.10	J5	1.10	34	18	16	-0.01	Natural		17.8	06/10/2020	#
⊗ PRAIRIE_AUK_TP162	2.50	B6	2.50	63	27	36	0.19	Natural	96.0	33.7	29/09/2020	
⊟ PRAIRIE_AUK_TP162	3.10	J7	3.10	56	24	32	0.28	Natural		33.0	29/09/2020	

For description of sample please refer to the Laboratory Sample Description Sheet # = Insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

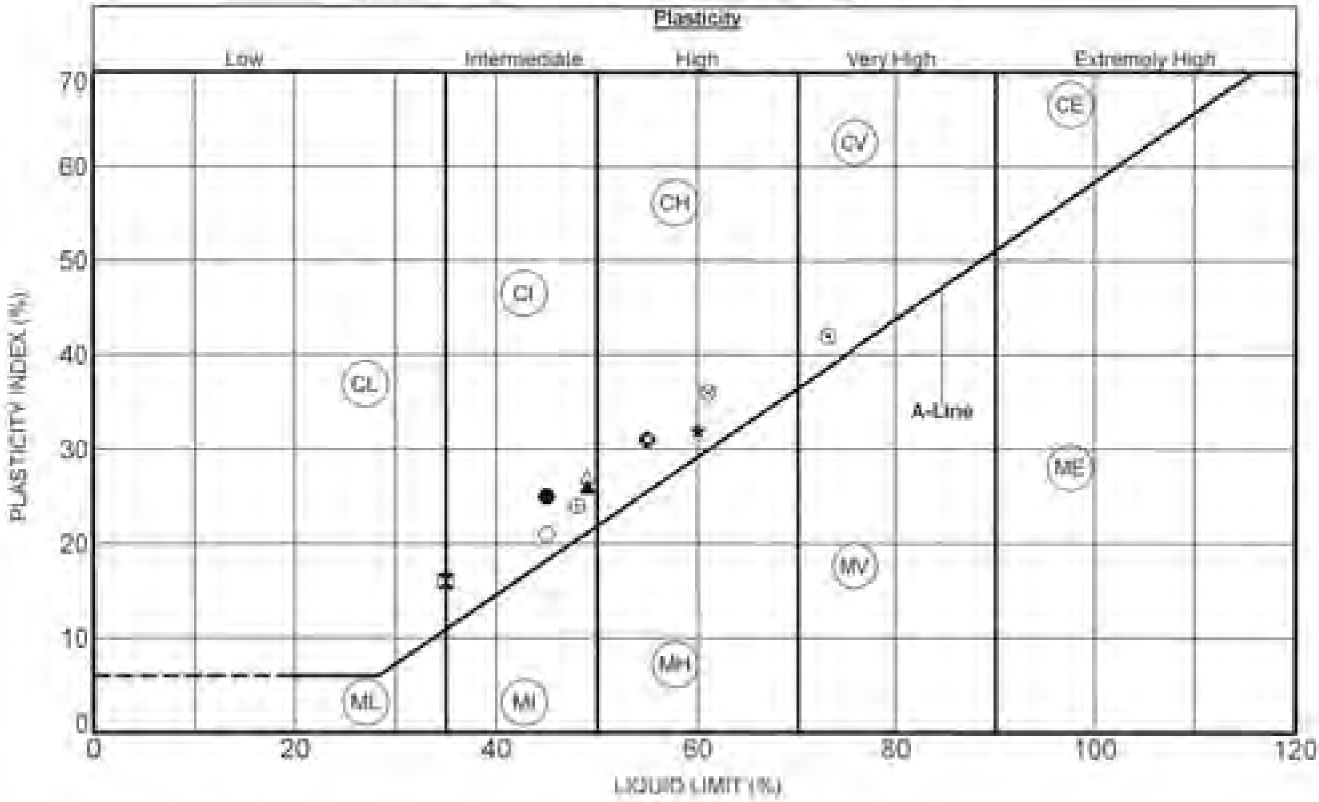
Signed :-	Name :-	Page 7 of 8
Date of issue :- 03/11/2020	Certificate No. :- PI/4251/7	AEG Contract No. 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ATTERBERG LIMITS & NATURAL MOISTURE CONTENT

Test Method :- BS 1377 : Part 2 : Clause 3.2, 4.1 to 4.4 & 5 : 1990



Exploratory Hole No.	Depth (m)	Sample Type/Ref	Specific Depth (m)	LL	PL	PI	I_L	Preparation Method	<0.425mm (%)	m/c (%)	Date Tested
● PRAIRIE_AUK_TP163	1.60	J4	1.60	45	20	25	0.22	Natural		25.6	29/09/2020
⌶ PRAIRIE_AUK_TP174	1.20	J4	1.20	35	19	16	0.41	Natural		25.6	28/09/2020
▲ PRAIRIE_AUK_TP175	1.40	J4	1.40	49	23	26	0.08	Natural		25.1	29/09/2020
★ PRAIRIE_AUK_TP177	0.90	J4	0.90	60	28	32	0.20	Natural		34.5	28/09/2020
⊙ PRAIRIE_AUK_TP178	1.60	B5	1.60	73	31	42	0.43	Natural		49.1	30/09/2020
✪ PRAIRIE_AUK_TP179	1.70	J5	1.70	55	24	31	0.23	Natural		31.1	29/09/2020
○ PRAIRIE_AUK_TP181	1.80	J5	1.80	45	24	21	-0.04	Natural		23.1	29/09/2020
△ PRAIRIE_AUK_TP182	1.30	J4	1.30	49	22	27	-0.01	Natural		21.8	29/09/2020
⊗ PRAIRIE_AUK_TP189	1.40	J3	1.40	61	25	36	0.08	Natural		27.9	29/09/2020
⊞ PRAIRIE_AUK_TP180	2.70	J5	2.70	48	24	24	0.16	Natural		27.9	29/09/2020

For description of sample please refer to the Laboratory Sample Description Sheet. # = insufficient for 4 point PI
If sample is prepared in the natural state we are unable to determine % retained on the 0.425mm test sieve

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :- (signature)

Name :-

Date of issue :- 03/11/2020

Certificate No :- PI/4251/8

AEG Contract No. :- 4251

UKAS TESTING 1367

Determination of Particle Density

LABORATORY TESTING ENCLOSURE 3

ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF PARTICLE DENSITY

BS1377 : Part 2 : Clause 8.2 : 1990

Exploratory Hole No.	Depth (m)	Sample Type & No.	Specific Depth (m)	Particle Density (Mg/m^3)	Date Tested
PRAIRIE_AUK_BH101	3.00	U2	3.00	2.61	18/06/2020
PRAIRIE_AUK_BH101	11.00	U18	11.00	2.69	18/06/2020
PRAIRIE_AUK_BH108	3.50	B5	3.50	2.61	27/07/2020

For description of sample please refer to the Laboratory Sample Description Sheet.

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :- msene

Name :- [illegible]

Page 1 of 1

Date of issue :- 03/11/2020

Certificate No. :- PD/4251/1

AEG Contract No. :- 4251

UKAS TESTING 1367

Particle Size Distribution Sieving and Sedimentation

LABORATORY TESTING ENCLOSURE 4

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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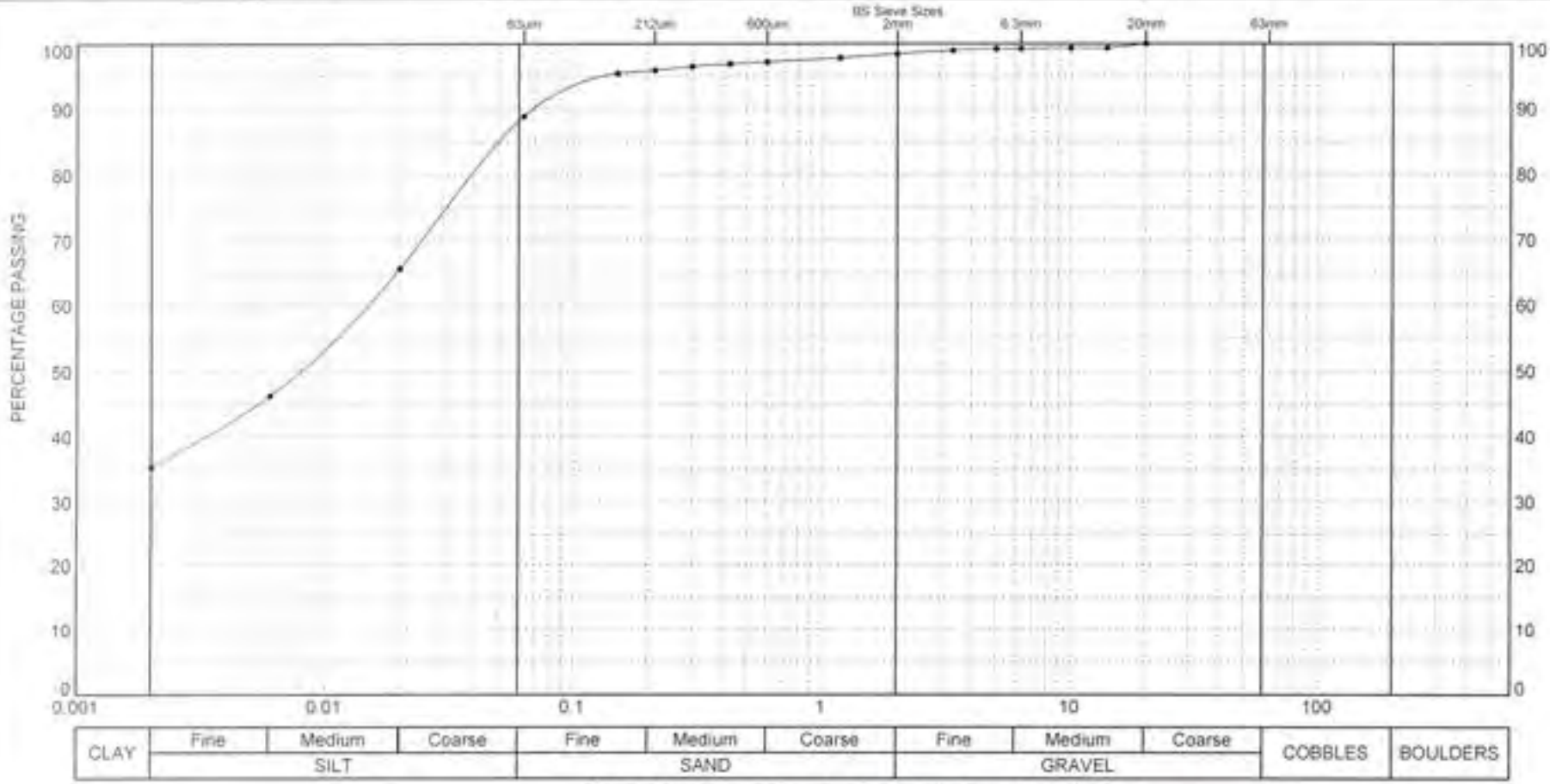
PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_BH101**	Depth (m) :- **4.00**	Sample Type & No :- **B5**	Specific Depth (m) :- **4.00**	Date Tested :- **17/06/2020**



Sieve Size (mm)	Passing (%)
20	100.0
14	99.3
10	99.3
6.3	99.2
5	99.2
3.35	98.9
2	98.4
1.18	97.8
0.6	97.2
0.425	96.9
0.3	96.5
0.212	95.9
0.15	95.4
0.063	88.9
0.02	65.7
0.006	46.3
0.002	35.5

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
29/06/2020	PSD/4251/PRAIRIE_AUK_BH101/B5/4.00	MSere	[illegible]	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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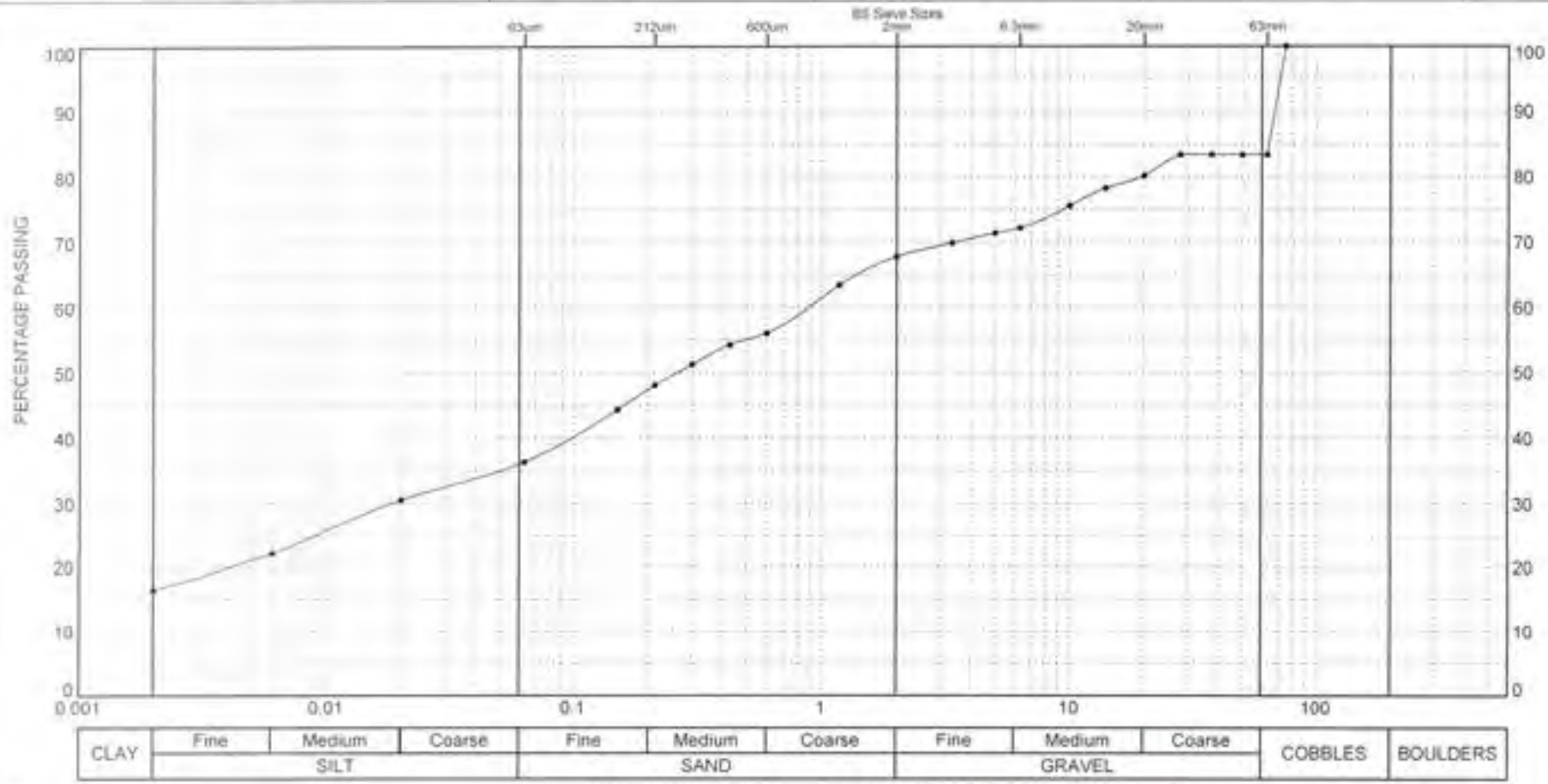
Regional Office: Unit 22, Business Development Centre, Eamont Bridge, Blackburn, BB1 5RL - Tel: 01772 735 500 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_BH101**	Depth (m) :- **12.50**	Sample Type & No :- **B22**	Specific Depth (m) :- **12.50**	Date Tested :- **17/06/2020**



Sieve Size (mm)	Passing (%)
75	100.0
63	83.4
50	83.4
37.5	83.4
28	83.4
20	80.2
14	78.3
10	75.6
6.3	72.2
5	71.4
3.35	69.9
2	67.8
1.18	63.5
0.6	56.1
0.425	54.3
0.3	51.3
0.212	48.1
0.15	44.4
0.063	36.4
0.02	30.6
0.006	22.3
0.002	16.3

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
29/06/2020	PSD/4251/PRAIRIE_AUK_BH101/B22/12.50	MSerl		

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

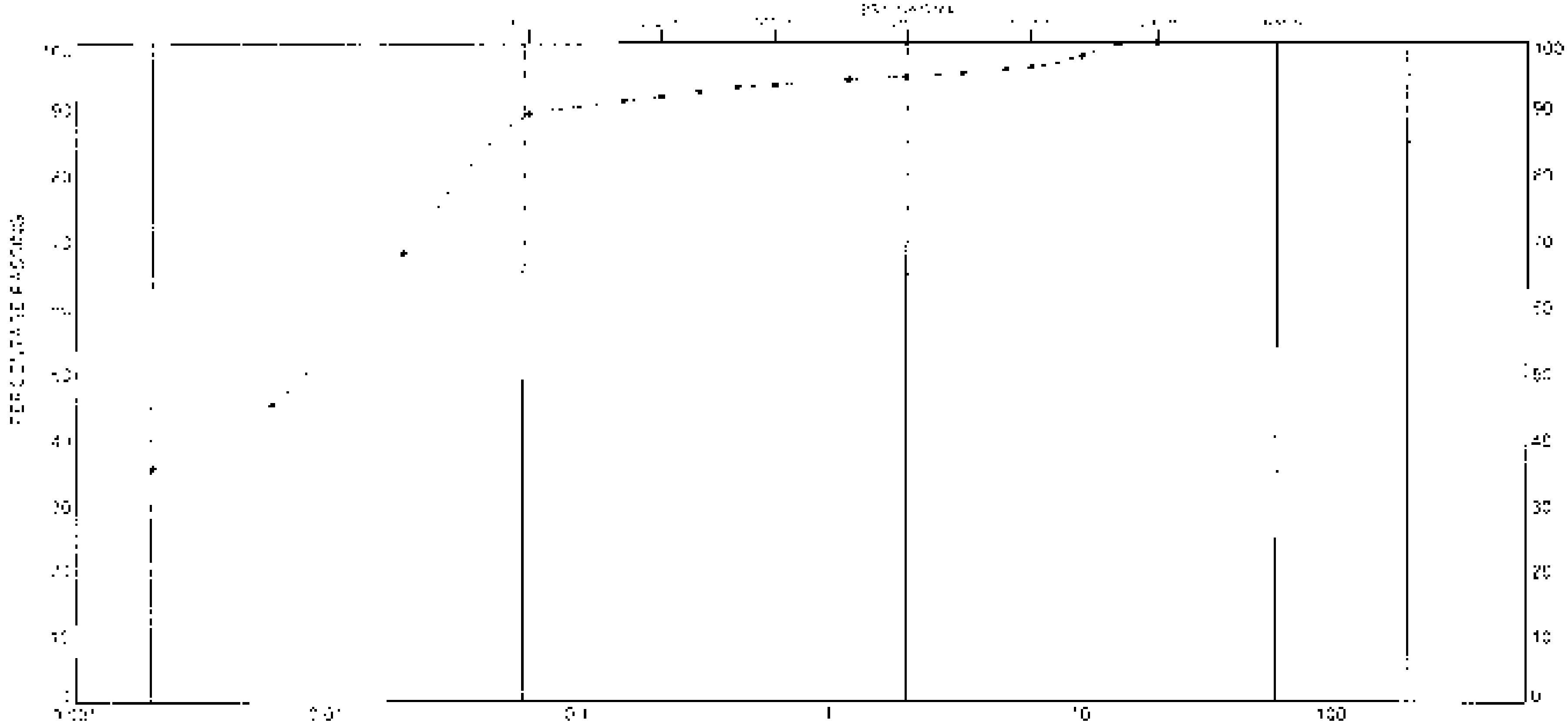
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_BH103 | Depth (m) : 5.50 | Sample Type & No : B12 | Specimen Depth (m) : 5.50 | Date Tested 16/10/2020



Sieve Size (mm)	Passing (%)
20	100.0
14	99.7
10	[illegible]
6.3	96.2
5	95.9
3.35	95.3
2	94.8
1.18	94.2
0.6	93.8
0.425	93.2
0.3	92.6
0.212	[illegible]
0.15	[illegible]
0.063	88.3
0.02	60.2
0.006	45.4
0.002	35.7

For description of sample please refer to the laboratory sample description sheet

Date of Issue : 23/10/2020

Certificate No : PSD 4251 PRAIRIE_AUK_BH103 B12 5.50 Signed : Msoe | Name :

Page 1 of 1

Client : North Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

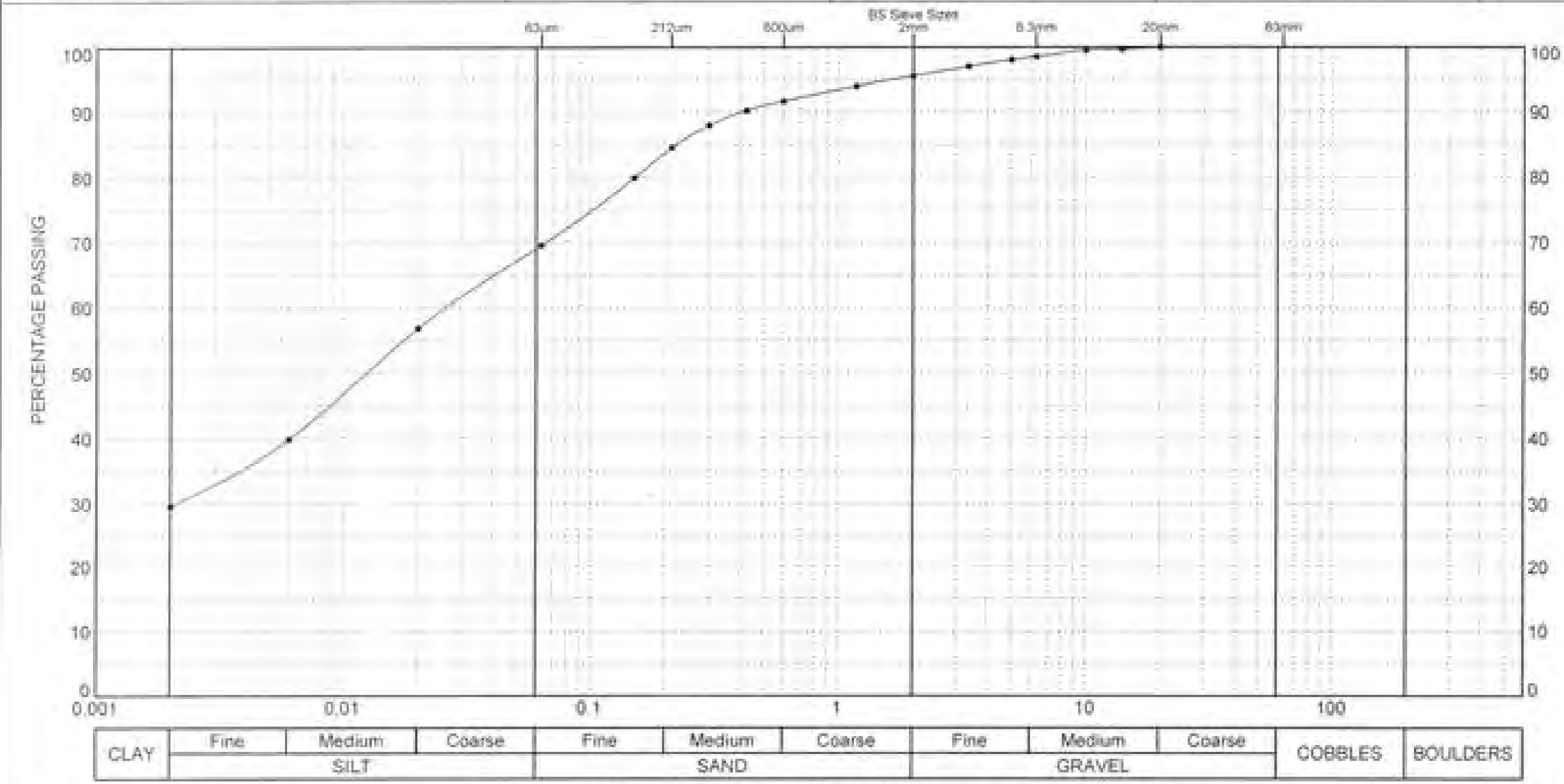
UKAS 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- PRAIRIE_AUK_BH103	Depth (m) :- 8.50	Sample Type & No :- B19	Specific Depth (m) :- 8.50	Date Tested :- 15/10/2020



Sieve Size (mm)	Passing (%)
20	100.0
14	99.7
10	99.5
6.3	98.5
5	98.0
3.35	97.0
2	95.6
1.18	94.0
0.6	91.7
0.425	90.3
0.3	88.0
0.212	84.6
0.15	80.0
0.063	69.6
0.02	56.9
0.006	39.9
0.002	29.7

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :- 23/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_BH103/B19/8.50	Signed :-	Name :-	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works			AEG Contract No :- 4251

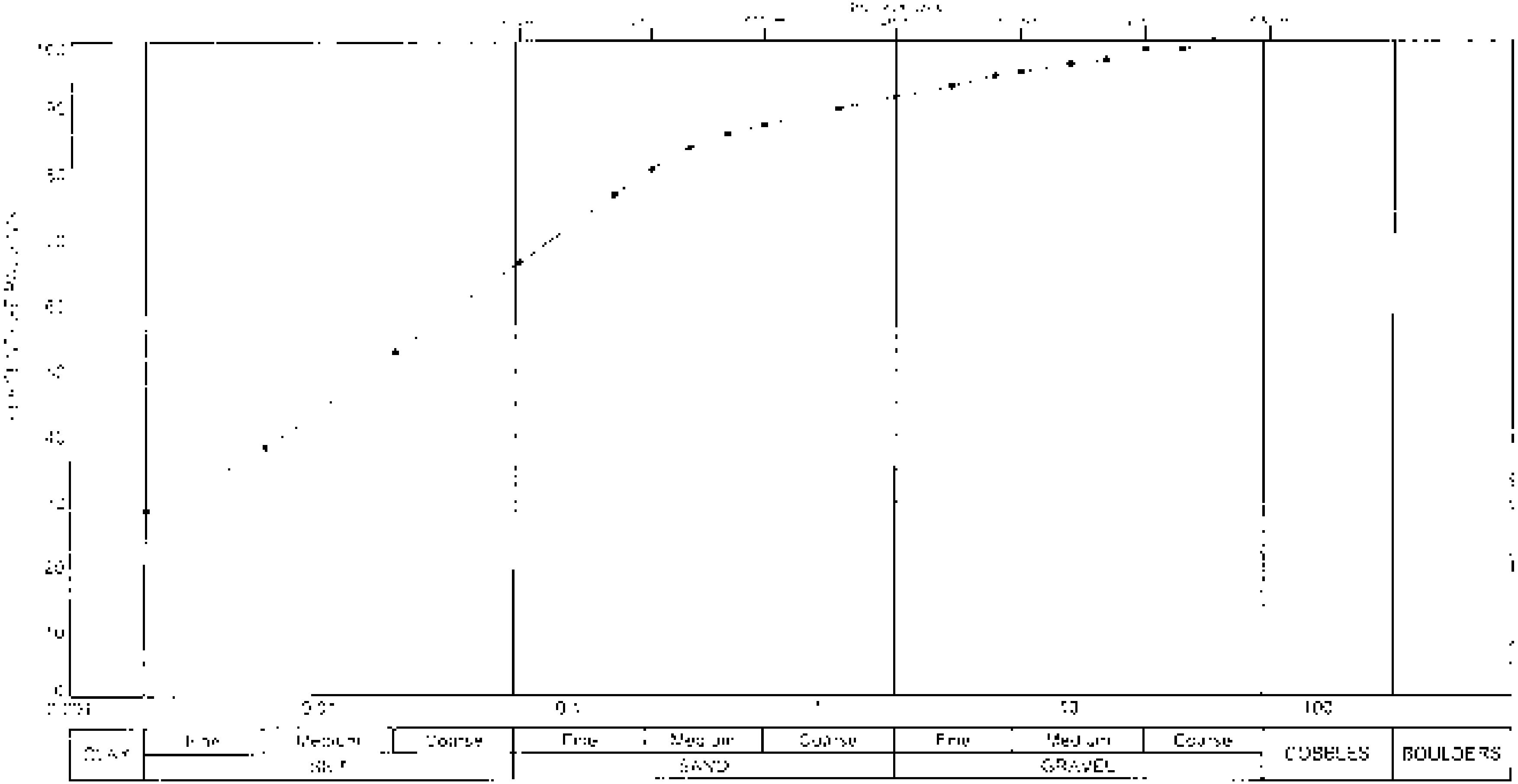
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Laboratory Hole No : PRAIRIE_AUK_BH106 | Depth (m) : 7.00 | Sample Type & No : D6 | Specific Depth (m) : 7.00 | Date Tested : 14/10/2020



Sieve Size (mm)	Passing (%)
37.5	100.0
28	98.6
20	98.0
14	97.0
10	95.4
6.3	95.1
5	94.[illegible]
3.35	93.0
2	91.4
1.18	89.6
0.6	87.2
0.425	85.9
0.3	83.[illegible]
0.212	80.6
0.15	76.[illegible]
0.063	66.5
0.02	52.8
0.006	38.2
0.002	28.0

Date of Issue : 20/10/2020 | Certificate No : [illegible]PRAIRIE_AUK_BH106 D6 7.00 | Signed : MSere | Name : | Page 1 of 1

Client : [illegible] Development Corporation | Contract Title : Prairie Site Ground Investigation Works | AEG Contract No : 4251

UKAS 1367

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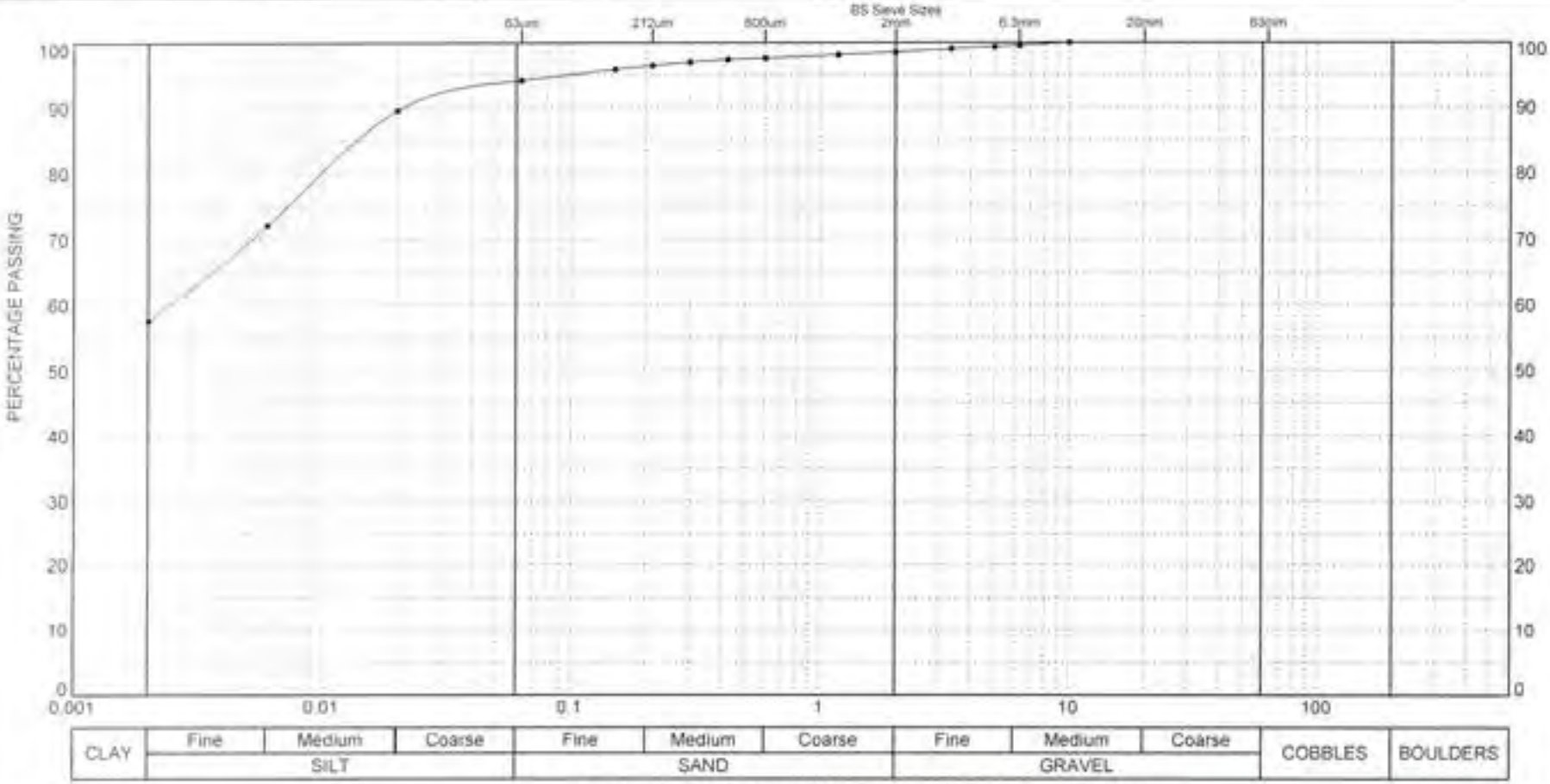
PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_BH108**	Depth (m) :- **3.50**	Sample Type & No :- **B5**	Specific Depth (m) :- **3.50**	Date Tested :- **10/07/2020**



Sieve Size (mm)	Passing (%)
10	100.0
6.3	99.5
5	99.3
3.35	99.0
2	98.5
1.18	98.1
0.6	97.6
0.425	97.4
0.3	97.0
0.212	96.5
0.15	95.9
0.063	94.2
0.02	89.6
0.006	72.1
0.002	57.6

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
30/07/2020	PSD/4251/PRAIRIE_AUK_BH108/B5/3.50		M SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

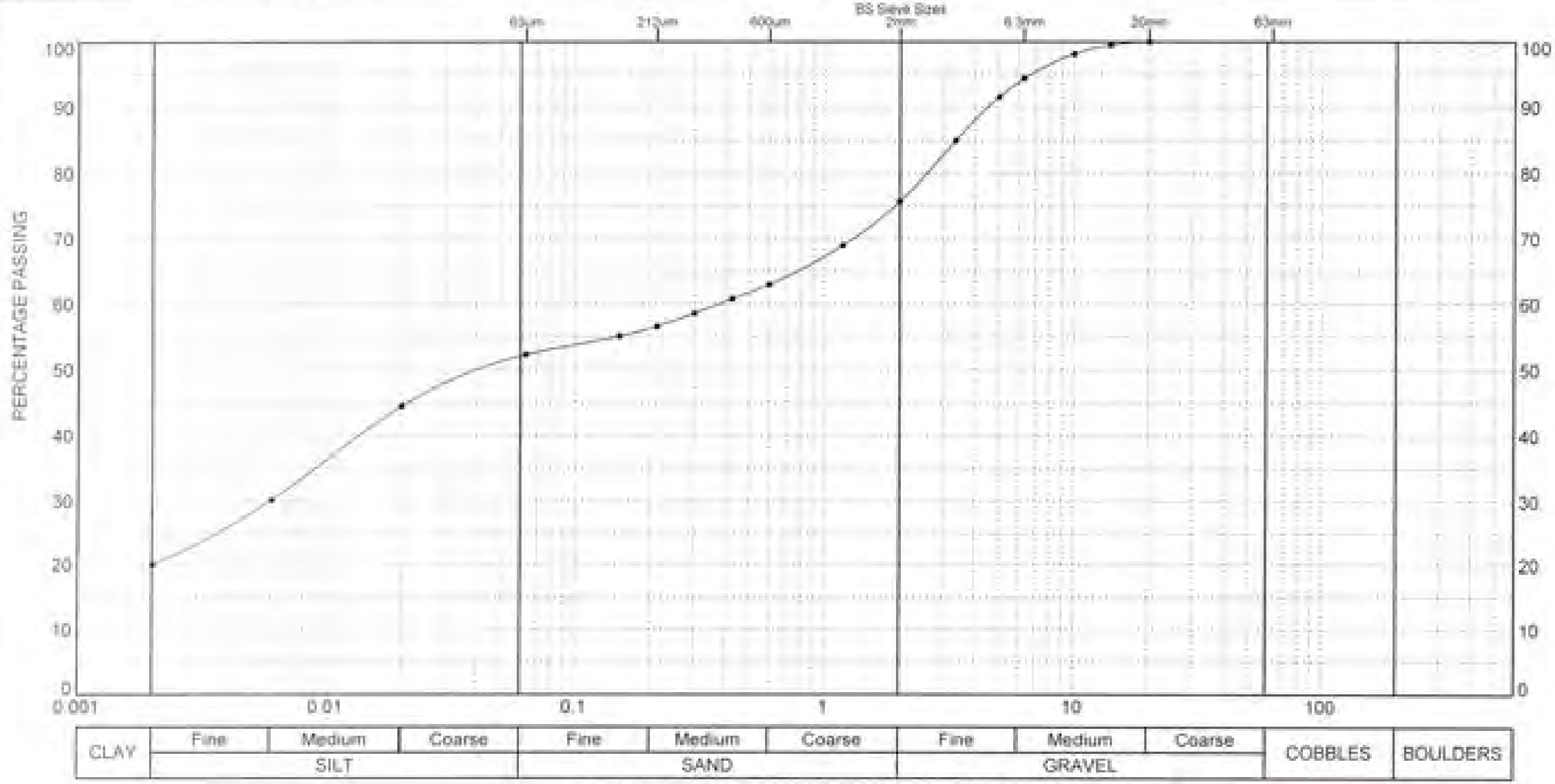
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_BH108**	Depth (m) :- **7.00**	Sample Type & No :- **B14**	Specific Depth (m) :- **7.00**	Date Tested :- **10/07/2020**



Sieve Size (mm)	Passing (%)
20	100.0
14	99.5
10	98.1
6.3	94.4
5	91.6
3.35	85.0
2	75.7
1.18	69.0
0.6	63.0
0.425	60.8
0.3	58.6
0.212	56.6
0.15	55.1
0.063	52.3
0.02	44.5
0.006	30.2
0.002	19.9

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :- 30/07/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_BH108/B14/7.00	Signed :-	Name :-	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works			AEG Contract No :- 4251

UKAS TESTING 1367

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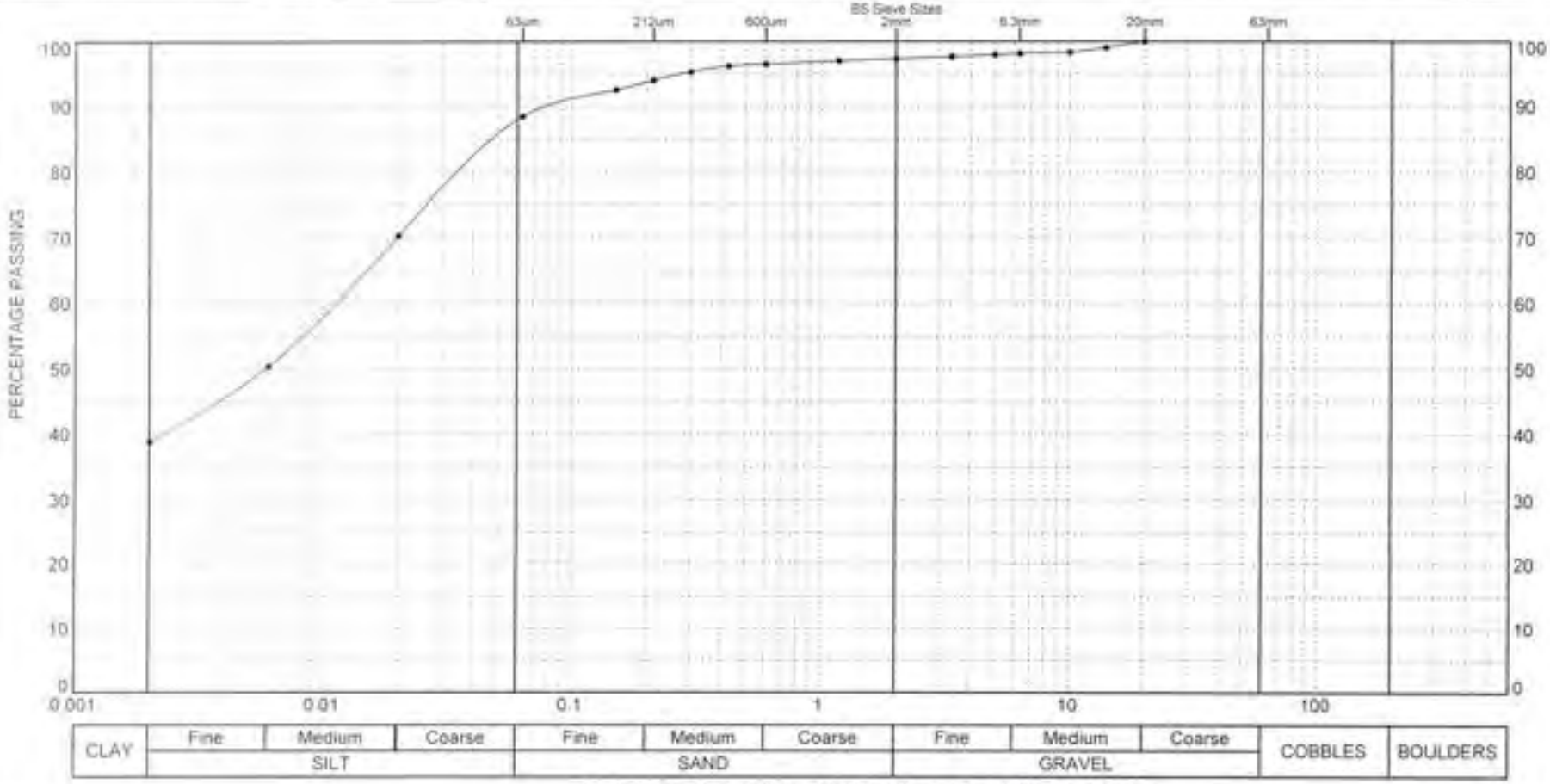
Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_BH109**	Depth (m) :- **2.00**	Sample Type & No :- **B10**	Specific Depth (m) :- **2.00**	Date Tested :- **13/07/2020**



Sieve Size (mm)	Passing (%)
20	100.0
14	99.0
10	98.3
6.3	98.1
5	97.9
3.35	97.6
2	97.3
1.18	97.0
0.6	96.5
0.425	96.2
0.3	95.3
0.212	94.0
0.15	92.6
0.063	88.5
0.02	70.3
0.006	50.4
0.002	38.9

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
30/07/2020	PSD/4251/PRAIRIE_AUK_BH109/B10/2.00	msone	[illegible]	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

UKAS TESTING 1367

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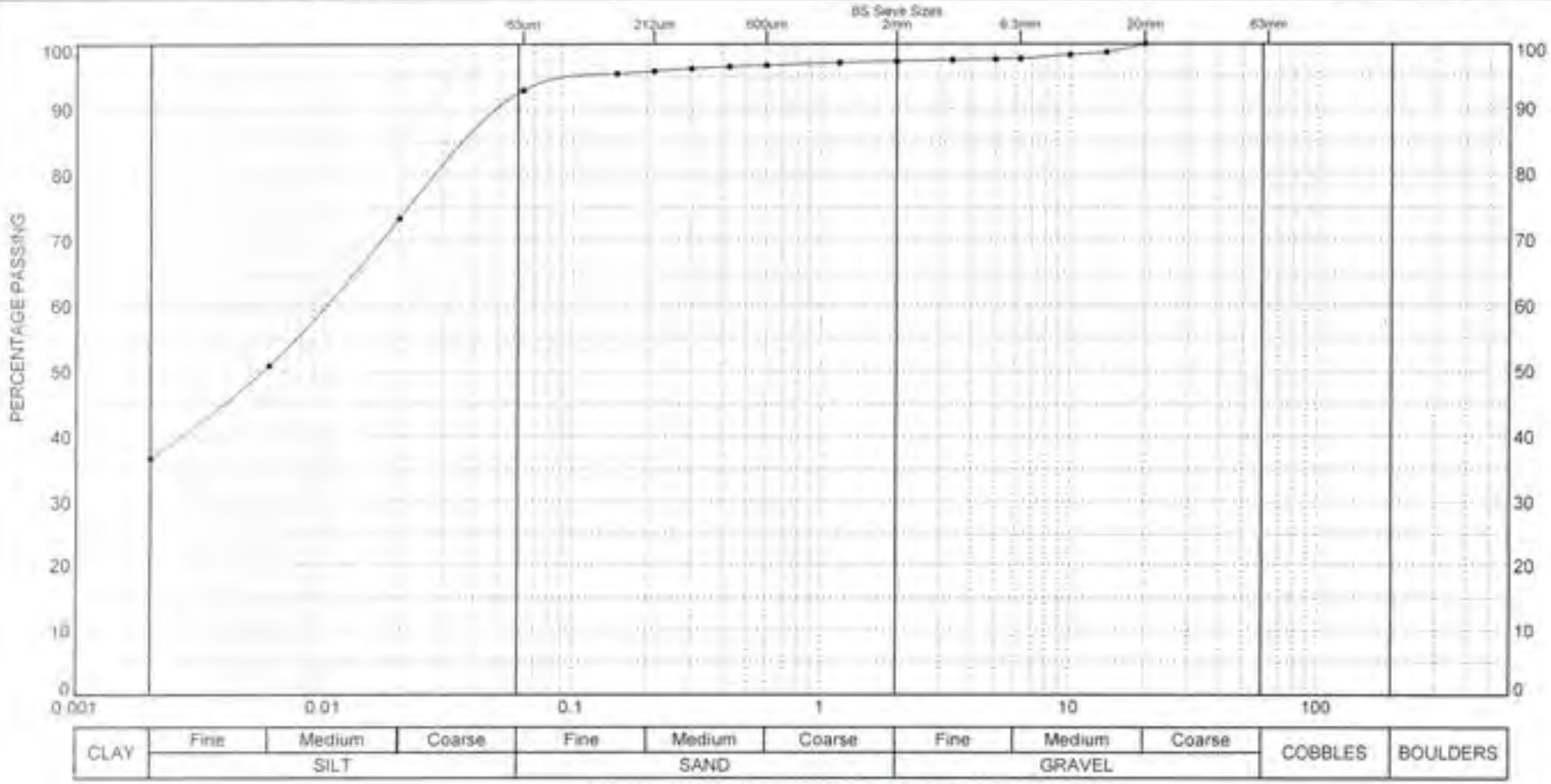
PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_BH110**	Depth (m) :- **4.00**	Sample Type & No :- **B5**	Specific Depth (m) :- **4.00**	Date Tested :- **10/07/2020**



Sieve Size (mm)	Passing (%)
20	100.0
14	98.7
10	98.3
6.3	97.7
5	97.6
3.35	97.5
2	97.3
1.18	97.1
0.6	96.7
0.425	96.5
0.3	96.2
0.212	95.8
0.15	95.4
0.063	92.9
0.02	73.4
0.006	50.9
0.002	36.7

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
30/07/2020	PSD/4251/PRAIRIE_AUK_BH110/B5/4.00			

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

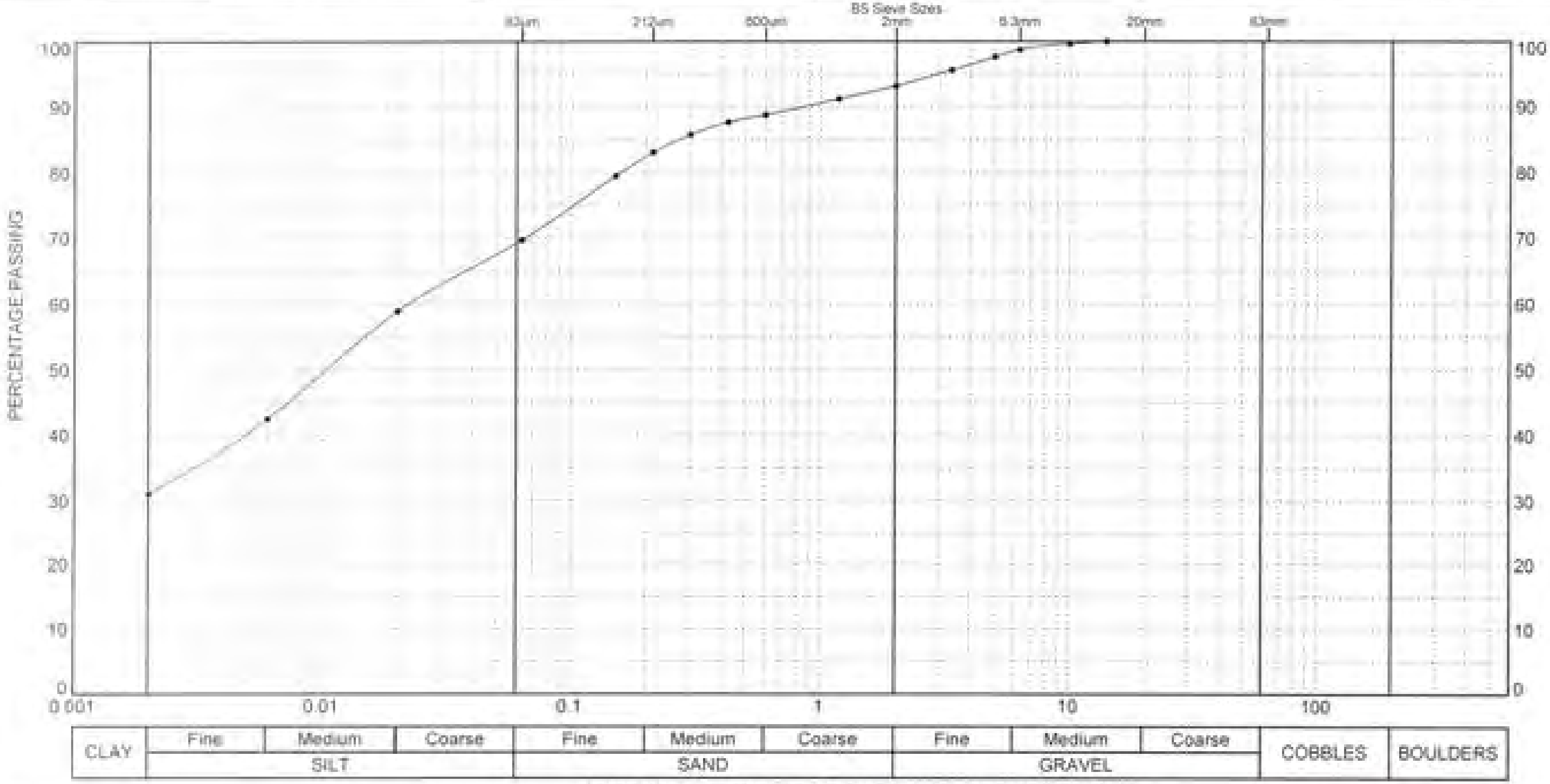
UKAS TESTING
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- PRAIRIE_AUK_BH110	Depth (m) :- 9.50	Sample Type & No :- B16	Specific Depth (m) :- 9.50	Date Tested :- 10/07/2020



Sieve Size (mm)	Passing (%)
14	100.0
10	99.6
6.3	98.7
5	97.6
3.35	95.6
2	93.2
1.18	91.2
0.6	88.8
0.425	87.7
0.3	85.8
0.212	83.1
0.15	79.5
0.063	69.7
0.02	58.9
0.006	42.5
0.002	31.1

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :- 30/07/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_BH110/B16/9.50	Signed :- [signature]	Name :- M SELKIRK	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works			AEG Contract No :- 4251

UKAS TESTING 1367

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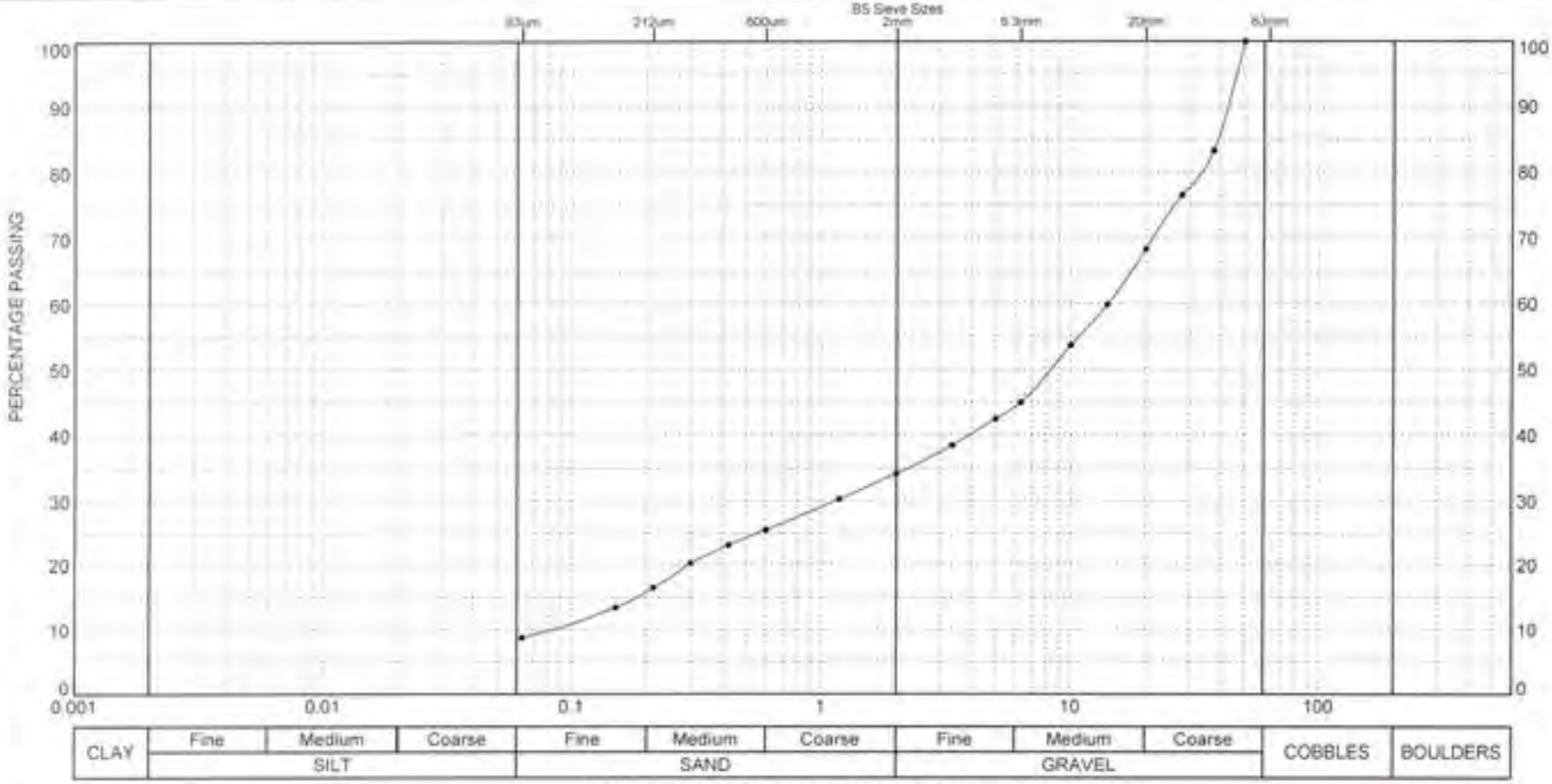
PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :-	Depth (m) :-	Sample Type & No :-	Specific Depth (m) :-	Date Tested :-
PRAIRIE_AUK_TP101	**0.90**	**B4**	**0.90**	**08/10/2020**



Sieve Size (mm)	Passing (%)
50	100.0
37.5	83.3
28	76.6
20	68.4
14	59.9
10	53.7
6.3	45.0
5	42.5
3.35	38.5
2	34.2
1.18	30.3
0.6	25.6
0.425	23.3
0.3	20.2
0.212	16.4
0.15	13.4
0.063	8.7

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP101/B4/0.90		M. SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

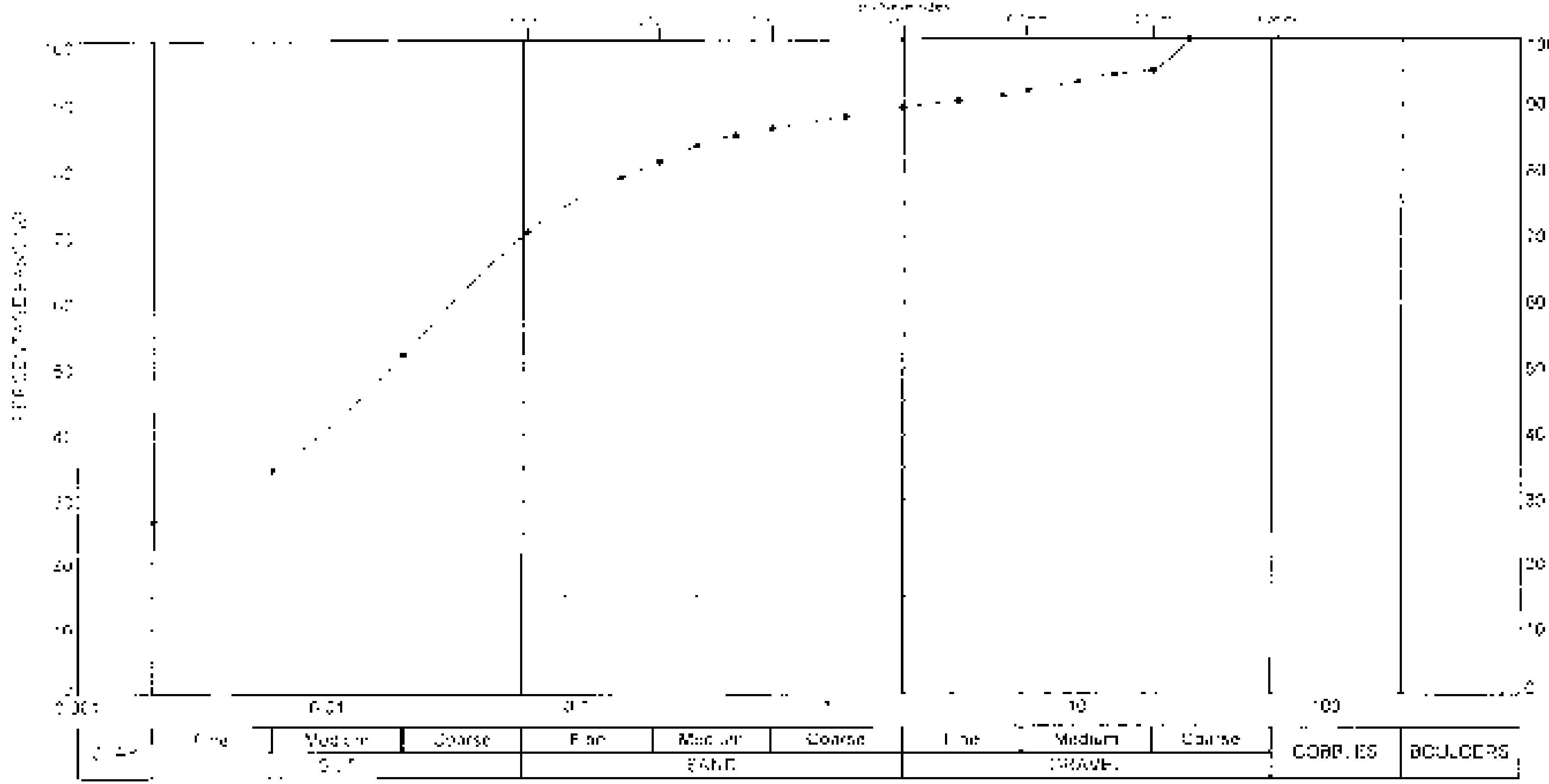
UKAS TESTING
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP102 | Depth (m) : 2.00 | Sample Type & No : B8 | Specific Depth (m) : 2.00 | Date Tested : 19/10/2020



Sieve Size (mm)	Passing (%)
28	100.0
20	95.[illegible]
14	94.0
10	93.5
6.3	92.2
5	91.4
3.35	90.6
2	89.6
1.18	88.2
0.6	86.4
0.425	85.4
0.3	83.6
0.212	81.4
0.15	79.0
0.063	70.9
0.02	52.0
0.006	34.6
0.002	26.7

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 20/10/2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP102 B8/2.00

Signed : msere

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

1367

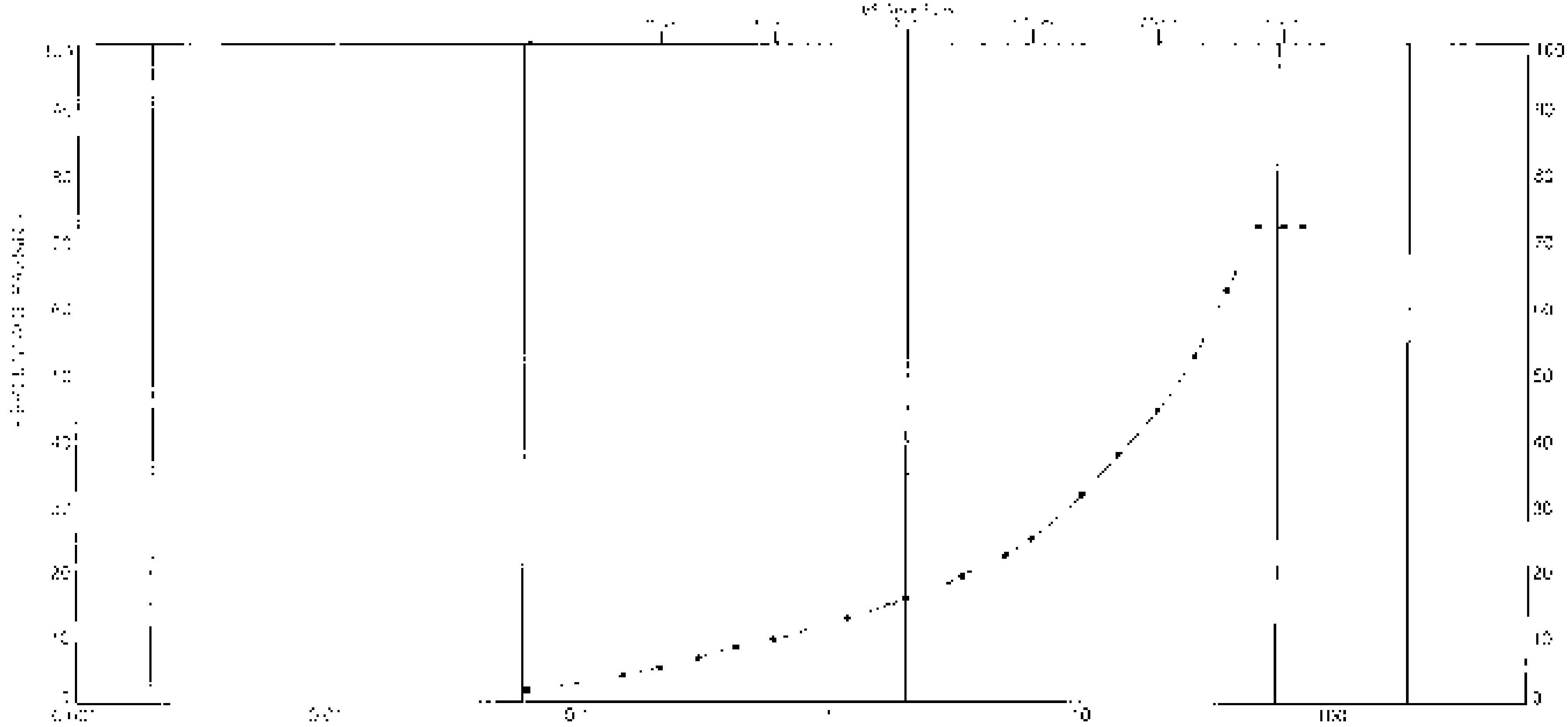
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP100 | Depth (m) : 0.80 | Sample Type & No : B2 | Specific Depth (m) : 0.80 | Date Tested : 14/10/2020



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Sieve Size (mm)	Passing (%)
75	72.3
63	72.3
50	72.3
37.5	62.7
28	52.9
20	44.6
14	38.0
10	32.0
6.3	25.5
5	22.8
3.35	19.7
2	15.8
1.18	12.8
0.6	9.7
0.425	8.4
0.3	6.9
0.212	5.4
0.15	4.1
0.063	2.0

For description of the sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 03/11/2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP100 B2 0.80

Signed : MSone

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

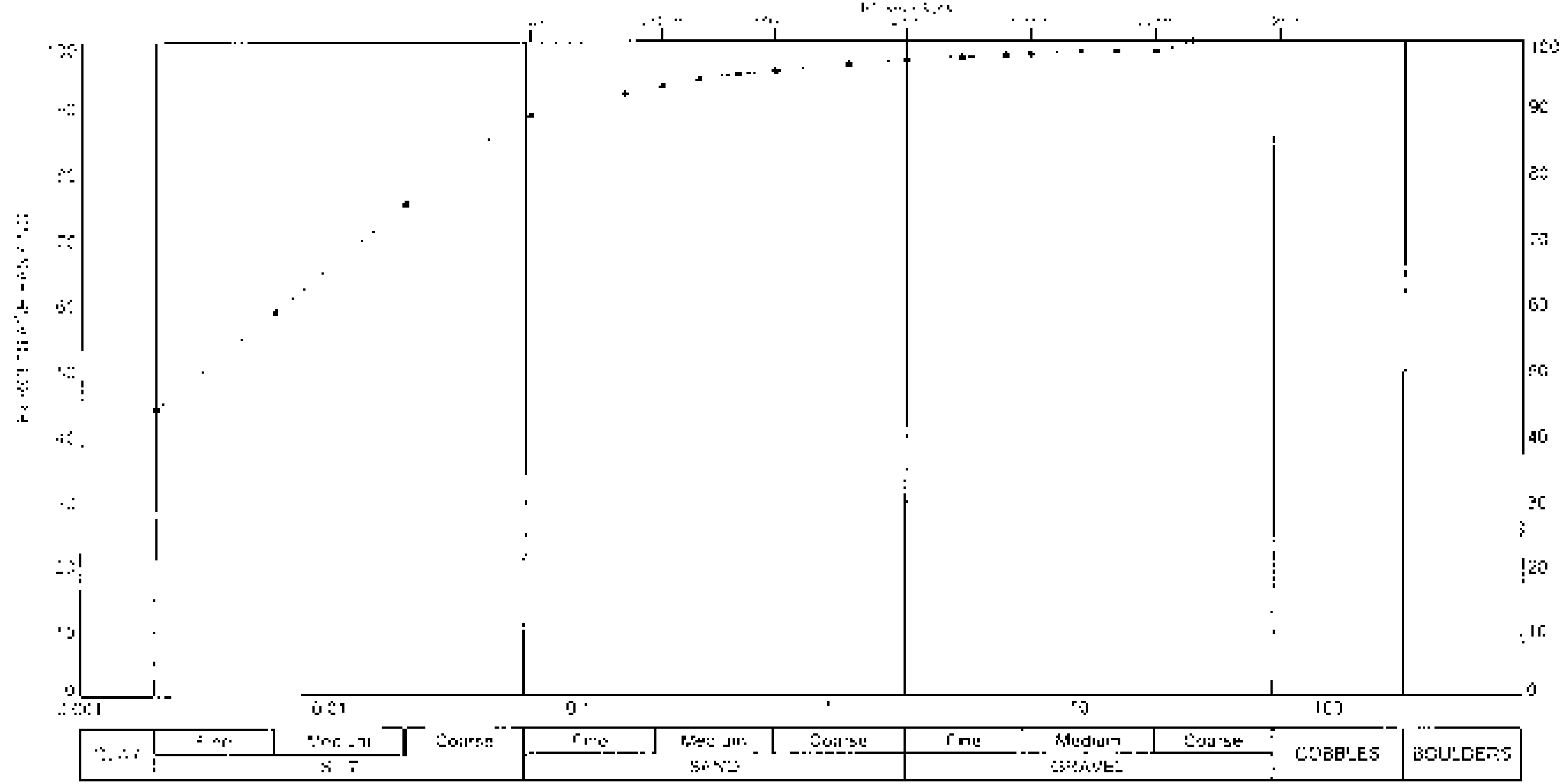
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP105 | Depth (m) : 2.00 | Sample Type & No : B5 | Specific Depth (m) : 2.00 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
28	100.0
20	98.4
14	98.4
10	98.4
6.3	98.0
5	97.6
3.35	97.5
2	97.1
1.18	96.4
0.6	95.5
0.425	95.0
0.3	94.2
0.212	93.3
0.15	92.1
0.063	86.8
0.02	75.5
0.006	60.0
0.002	44.2

For description of sample refer to the laboratory sample description sheet

Date of Issue : 20.10.2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP105 B5/2.00

Signed : [illegible]

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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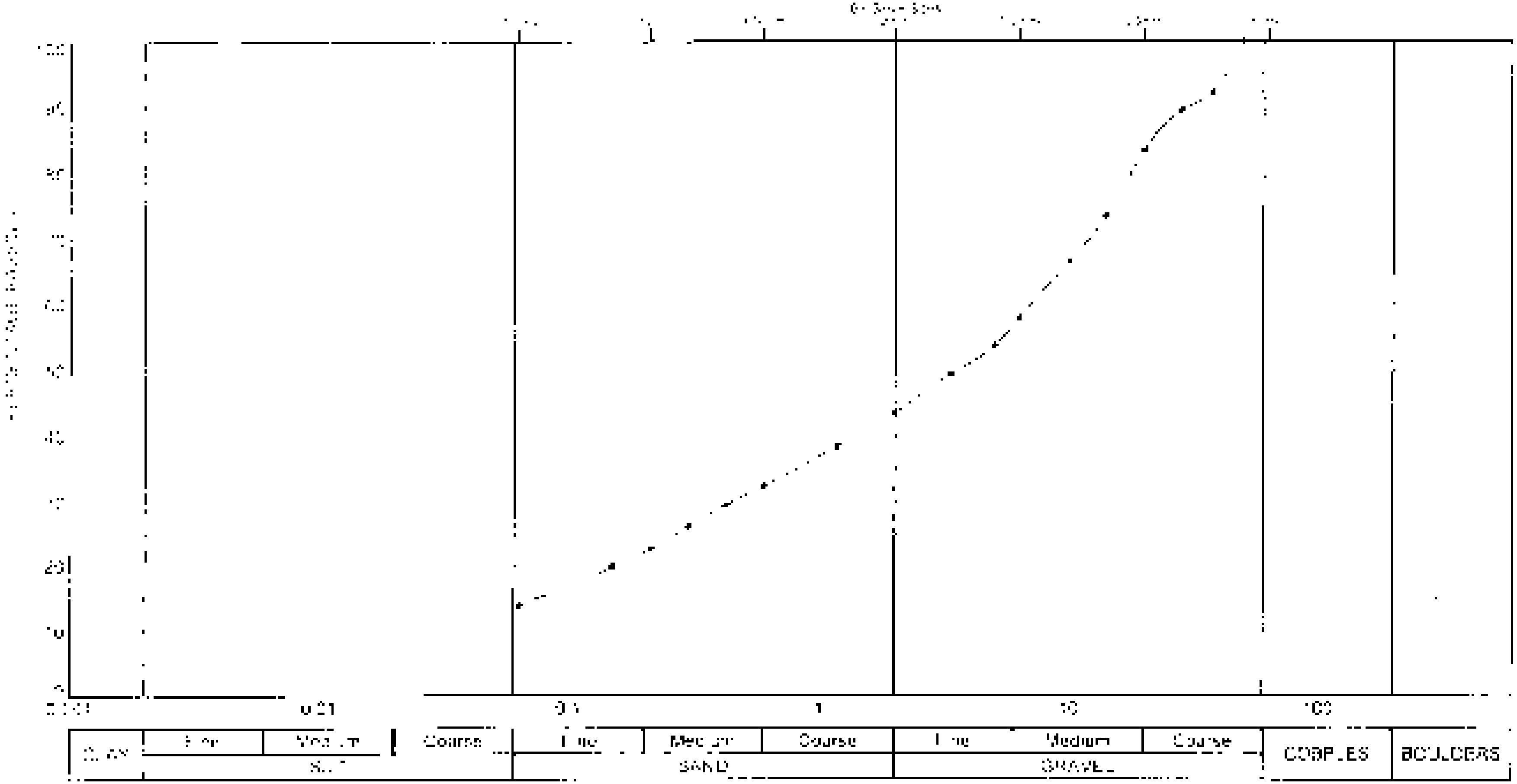
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PHAIRIE_AGK_TP100 | Depth (m) : 1.00 | Sample Type & No : B2 | Specific Depth (m) : 1.00 | Date Tested : 15/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	92.2
28	90.4
20	83.4
14	73.5
10	66.6
6.3	57.9
5	53.7
3.35	48.4
2	41.5
1.18	38.5
0.6	32.4
0.425	29.6
0.3	26.2
0.212	22.4
0.15	19.6
0.063	13.9

Date of Issue : 20/10/2020

Certificate No : PSD 4251 PRAIRIE_AGK_TP100 B2 1.00

Signed :

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

1367

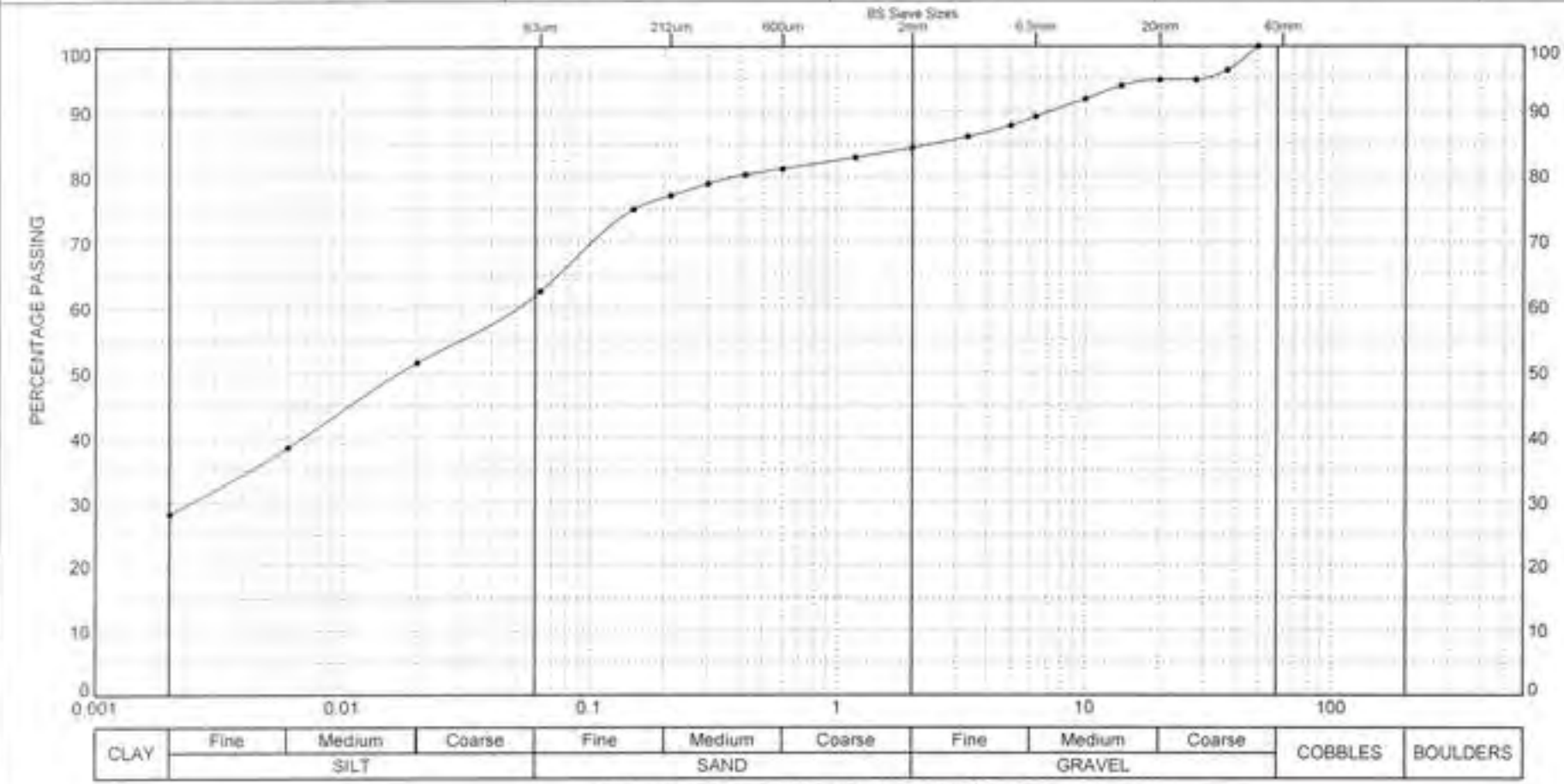
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 20, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eastern Wharf, Blackburn, BB1 5BL - Tel: 01772 735 530 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_TP107**	Depth (m) :- **1.00**	Sample Type & No :- **B4**	Specific Depth (m) :- **1.00**	Date Tested :- **30/09/2020**



Sieve Size (mm)	Passing (%)
50	100.0
37.5	96.3
28	94.8
20	94.8
14	93.9
10	91.9
6.3	89.2
5	87.8
3.35	86.1
2	84.4
1.18	82.9
0.6	81.2
0.425	80.3
0.3	78.9
0.212	77.1
0.15	75.0
0.063	62.5
0.02	51.6
0.006	38.6
0.002	28.3

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP107/B4/1.00			

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

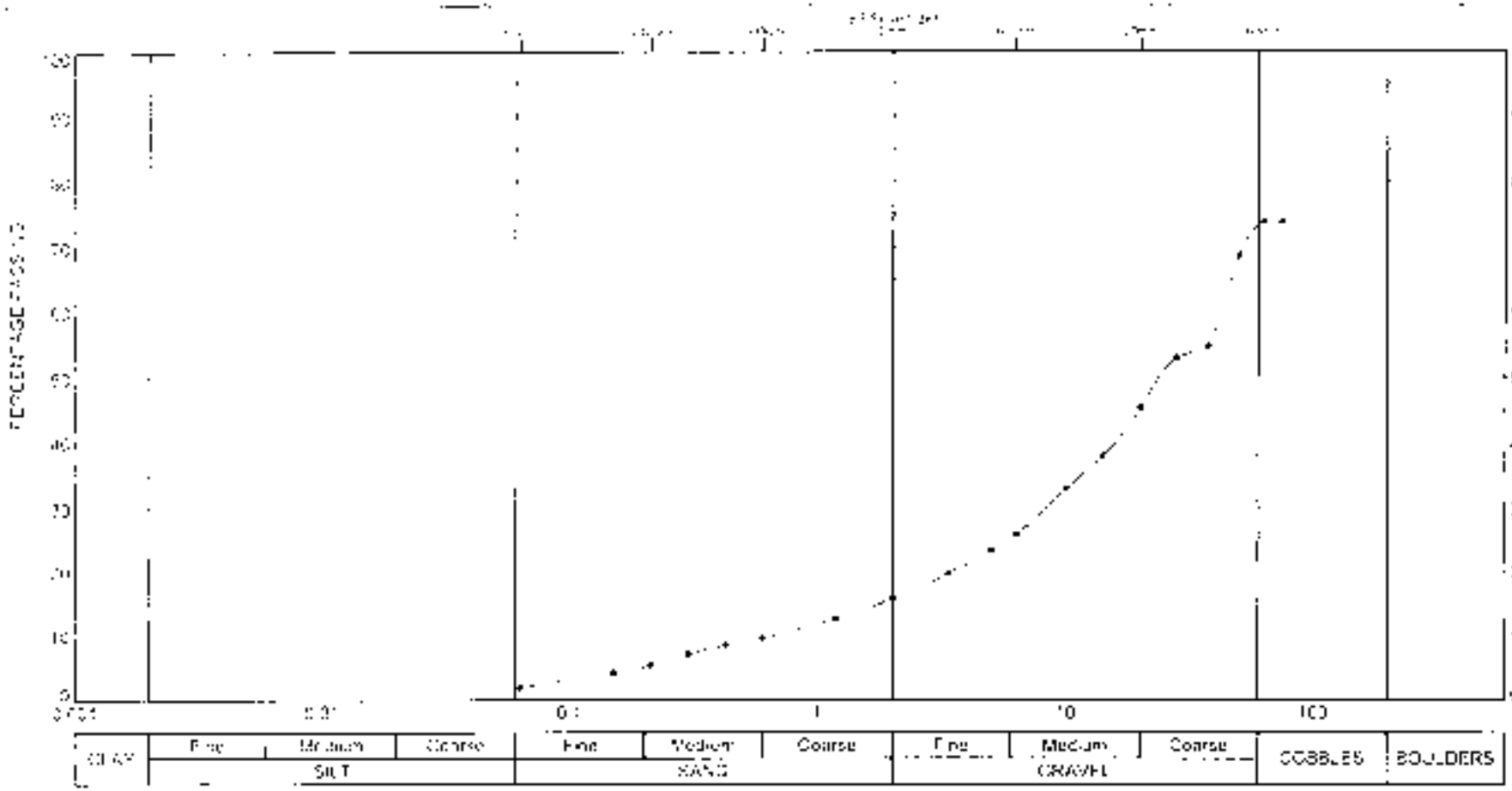
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP108 | Depth (m) : 0.90 | Sample Type & No : B4 | Specific Depth (m) : 0.90 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
75	70.9
63	70.9
50	68.6
37.5	64.6
28	60.0
20	45.4
14	38.0
10	31.0
6.3	20.1
5	23.6
3.35	19.7
2	15.9
1.18	12.6
0.6	8.7
0.425	8.5
0.3	7.1
0.212	6.5
0.15	6.2
0.063	5.0

For description of soil properties refer to the Laboratory Sample Description Sheet

Date of Issue : 30/09/2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP108 B4 0.90 Signed : Name :

Page 1 of 1

Client : South West Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

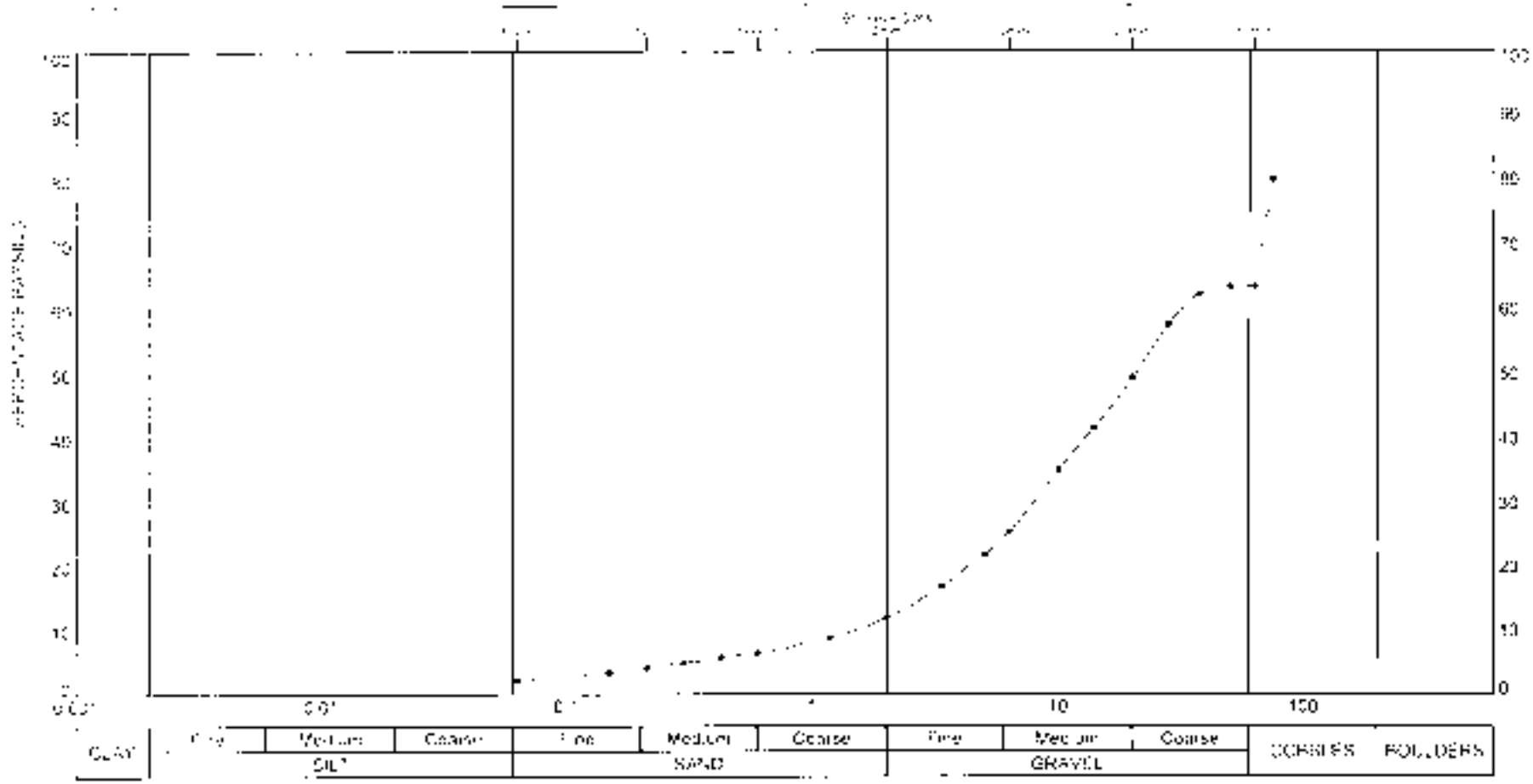
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No: PRAIRIE AUK_TP108 | Depth (m): 1.90 | Sample Type & No: B7 | Specific Depth (m): 1.90 | Date Tested: 30/09/2020



Sieve Size (mm)	Passing (%)
75	80.2
63	63.5
50	63.5
37.5	62.4
28	57.7
20	49.4
14	41.8
10	35.2
6.3	25.6
5	22.0
3.35	15.0
2	11.9
1.18	9.6
0.6	6.5
0.425	5.6
0.3	4.9
0.212	4.1
0.15	3.4
0.063	2.2

For description of soil properties refer to the relevant Sample Description sheet

Date of Issue: 30/10/2020

Certificate No: PSD-4251-PRAIRIE_AUK_TP108 B7/1.90

Signed:

Name:

Page 1 of 1

Client: South Tyne Development Corporation

Contract Title: Prairie Site Ground Investigation Works

AEG Contract No: 4251

1367

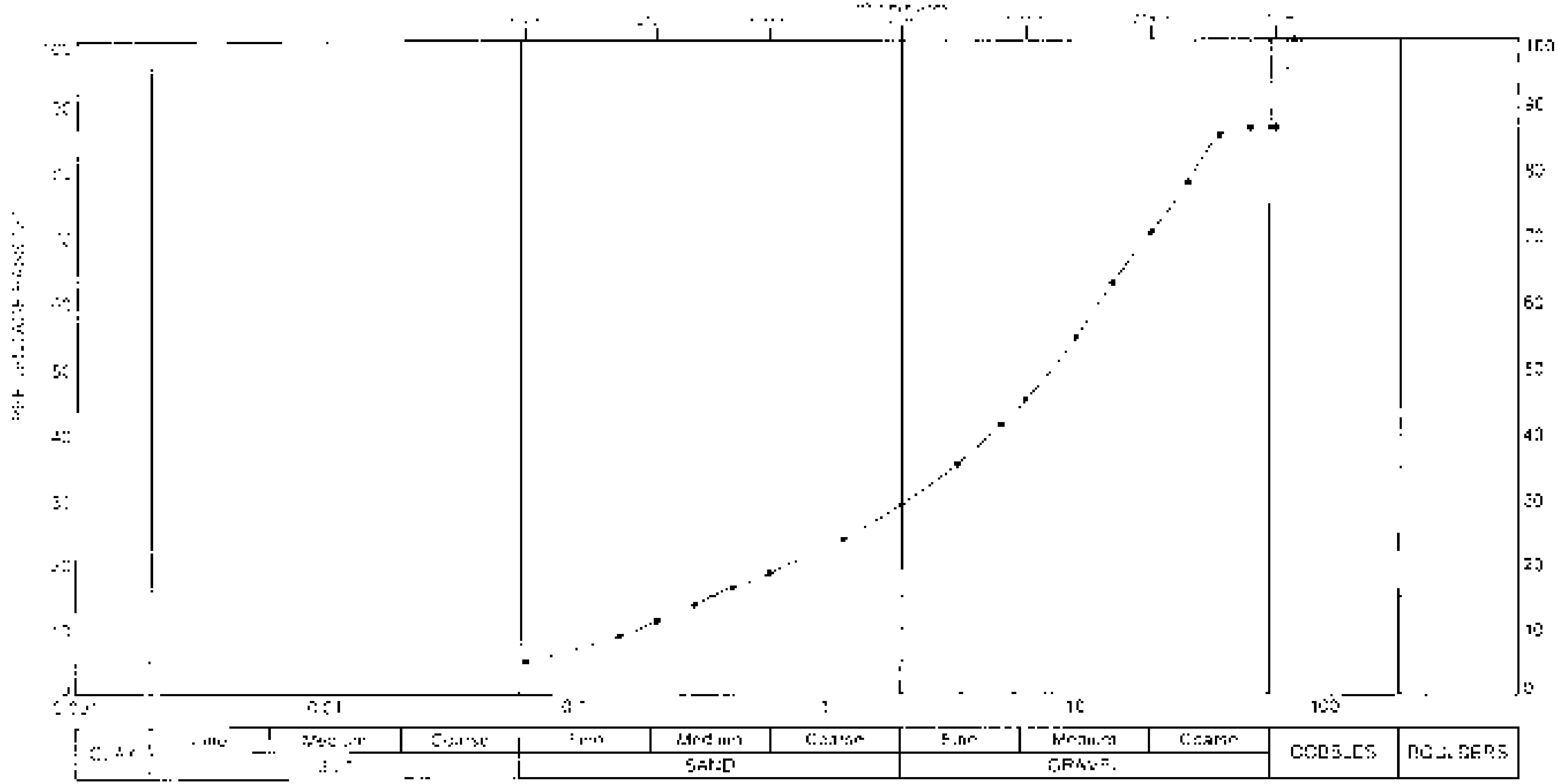
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No - PRAIRIE_AUK_TP110 | Depth (m) - 1.00 | Sample Type & No - B2 | Specific Depth (m) - 1.00 | Date Tested - 10/10/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	96.5
50	96.5
37.5	85.4
28	76.2
20	70.7
14	63.0
10	54.7
6.3	45.3
5	41.5
3.35	35.5
2	29.5
1.18	24.0
0.6	18.6
0.425	16.3
0.3	13.8
0.212	11.2
0.15	8.9
0.063	5.0

Full description of sample can be referred to the accompanying Sample Description Sheet

Date of Issue - [illegible] | Certificate No - AEG/A35/PRAIRIE_AUK_TP110 B2/1.00 | Signed - *(signature)* | Name - | Page 1 of 1

Client - [illegible] Development Corporation | Contract Title - Prairie Site Ground Investigation Works | AEG Contract No - 4251

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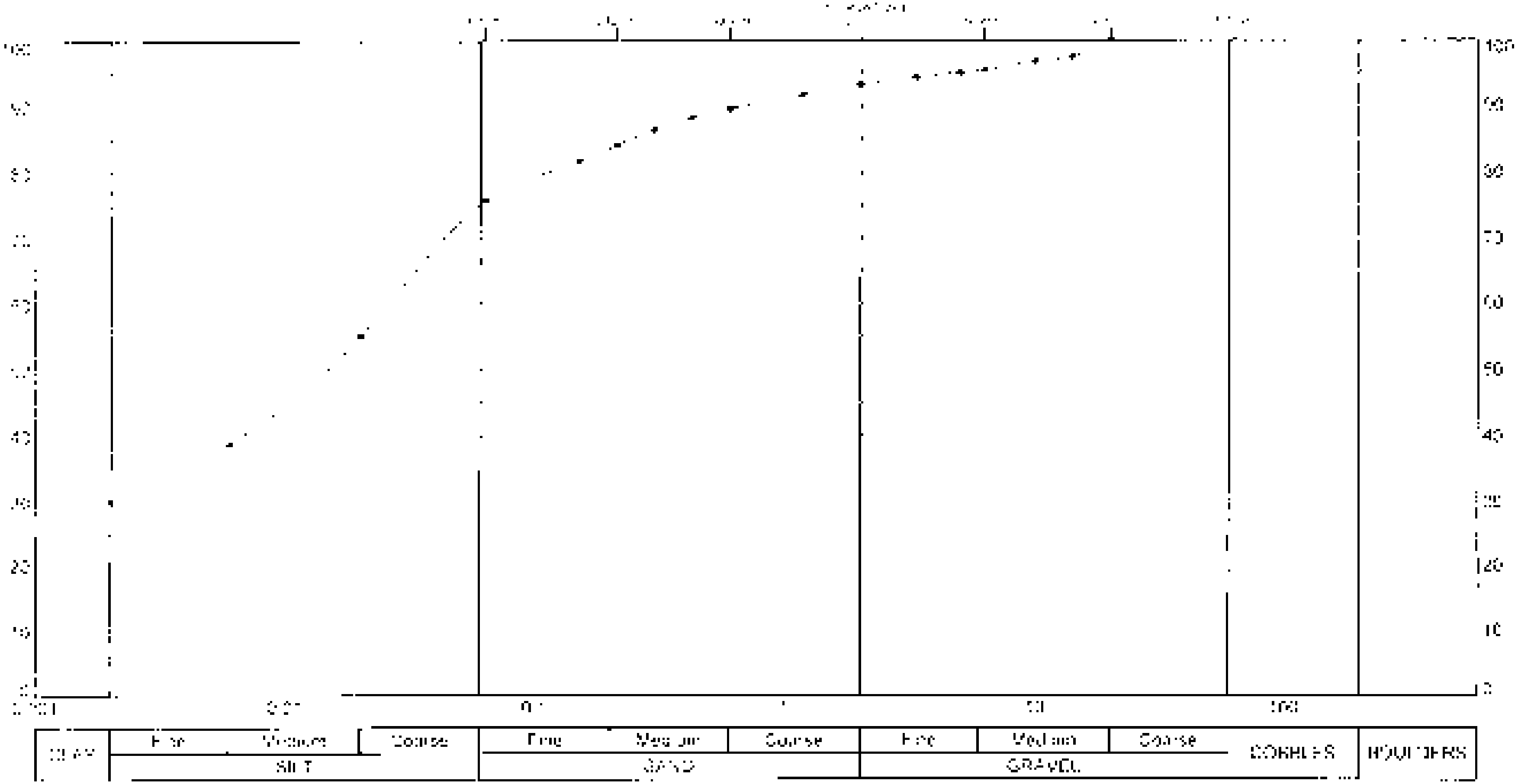
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 1990

Exploratory Hole No - PRAIRIE_AUK_TP110 | Depth (m) - 3.00 | Sample Type & No - B8 | Specific Depth (m) - 3.00 | Date Tested 16/10/2020



Sieve Size (mm)	Passing (%)
20	100.0
14	97.4
10	96.7
6.3	95.5
5	95.0
3.35	94.3
2	93.2
1.18	91.7
0.6	89.6
0.425	88.2
0.3	86.4
0.212	84.0
0.15	81.7
0.063	75.8
0.02	55.1
0.006	38.9
0.002	30.0

Date of Issue - 23/10/2020

Certificate No - PSD 4251 PRAIRIE_AUK_TP110 B8 3.00 Signed - Name

Client - South Tees Development Corporation

Contract Title - Prairie Site Ground Investigation Works

Page 1 of 1

AEG Contract No - 4251

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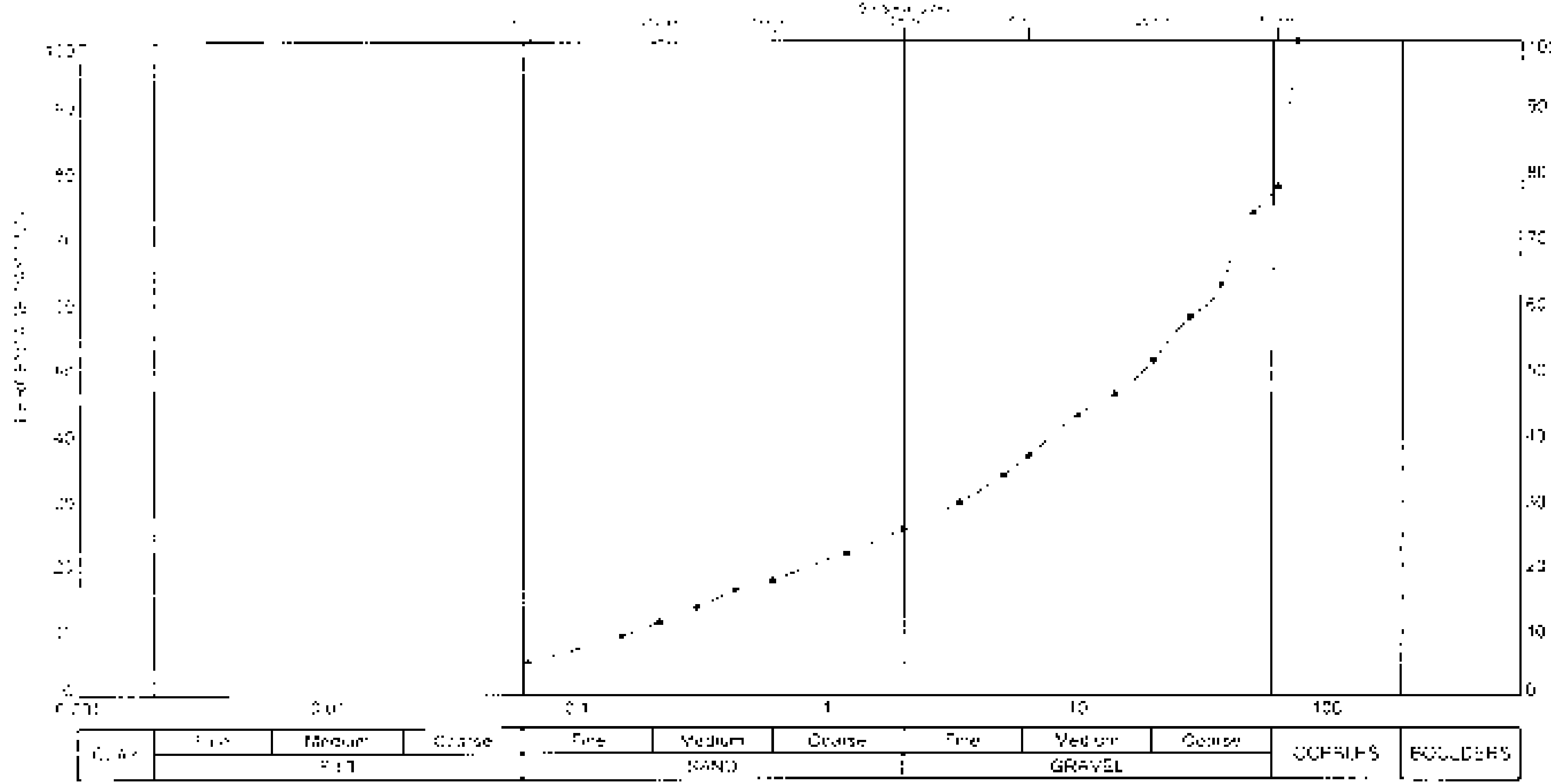
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No: PRAIRIE_AUK_TP111 | Depth (m): 1.60 | Sample Type & No: B5 | Specific Depth (m): 1.60 | Date Tested: 18/10/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	77.6
50	72.8
37.5	63.2
28	58.1
20	51.5
14	46.4
10	43.7
6.3	38.9
5	34.0
3.35	29.9
2	25.5
1.18	23.0
0.6	17.8
0.425	16.0
0.3	13.7
0.212	11.3
0.15	9.2
0.063	5.2

For description of sample please refer to the relevant Sample Description sheet

Date of Issue: 23/10/2020 | Certificate No: [illegible]/PRAIRIE_AUK_TP111/B5/1.60 | Signed: | Name: | Page 1 of 1

Client: South Tees Development Corporation | Contract Title: Prairie Site Ground Investigation Works | AEG Contract No: 4251

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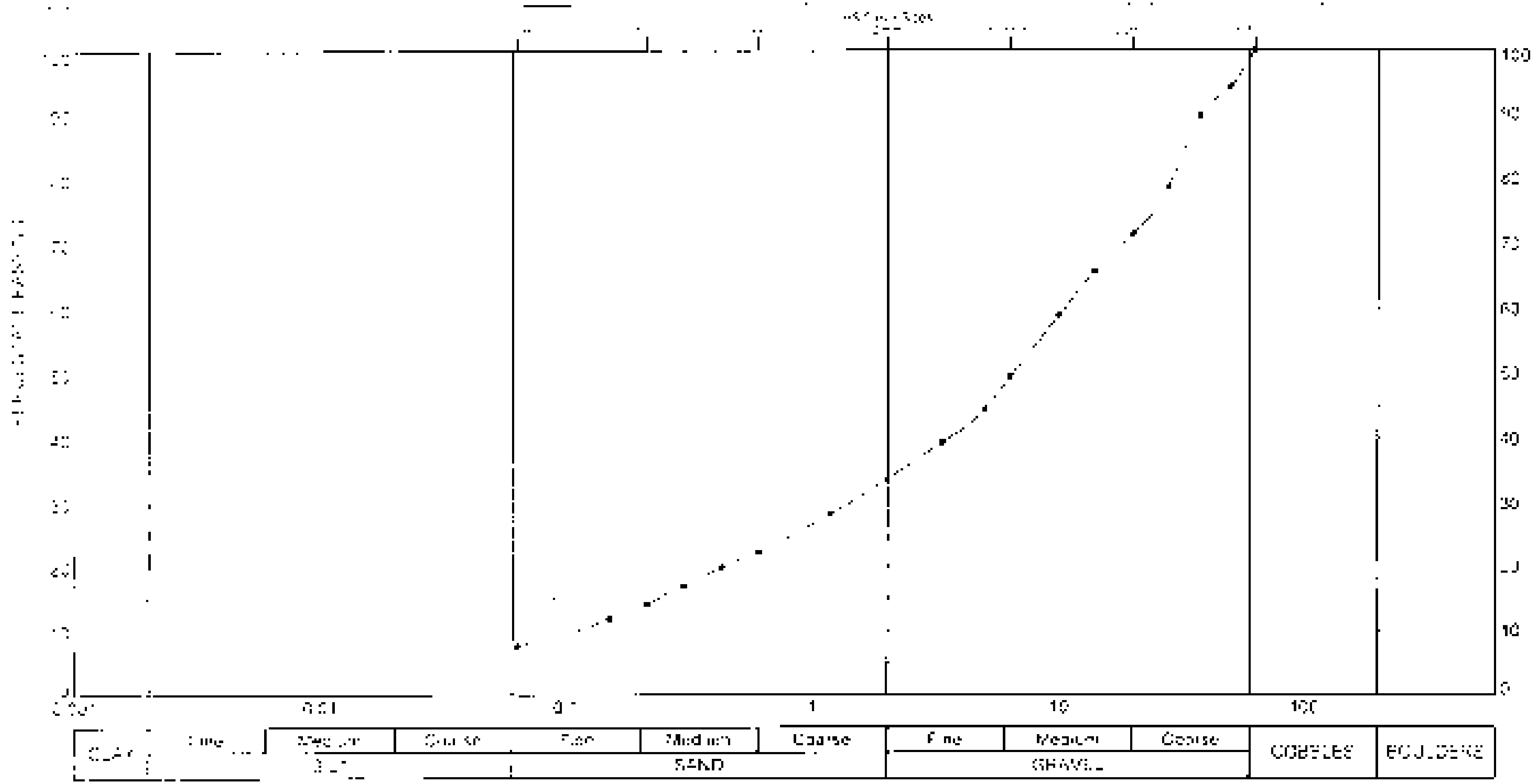
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No - PRAIRIE_AUK_TP112 Depth (m) - 1.70 Sample Type & No - B5 Specific Depth (m) - 1.70 Date Tested - 19/10/2020



Sieve Size (mm)	Passing (%)
63	100.0
50	94.0
37.5	89.7
28	78.9
20	71.5
14	65.0
10	58.1
6.3	49.5
5	44.6
3.35	39.5
2	32.6
1.18	28.5
0.6	22.4
0.425	19.8
0.3	17.0
0.212	14.2
0.15	11.[illegible]
0.063	7.5

For description of sample please refer to the relevant Sample Description sheet

Date of Issue - [illegible]

Certificate No - CSD4251-PRAIRIE_AUK_TP112-B5-1.70

Signed - msene

Name -

Page 1 of 1

Client - [illegible] Development Corporation

Contract Title - Prairie Site Ground Investigation Works

AEG Contract No - 4251

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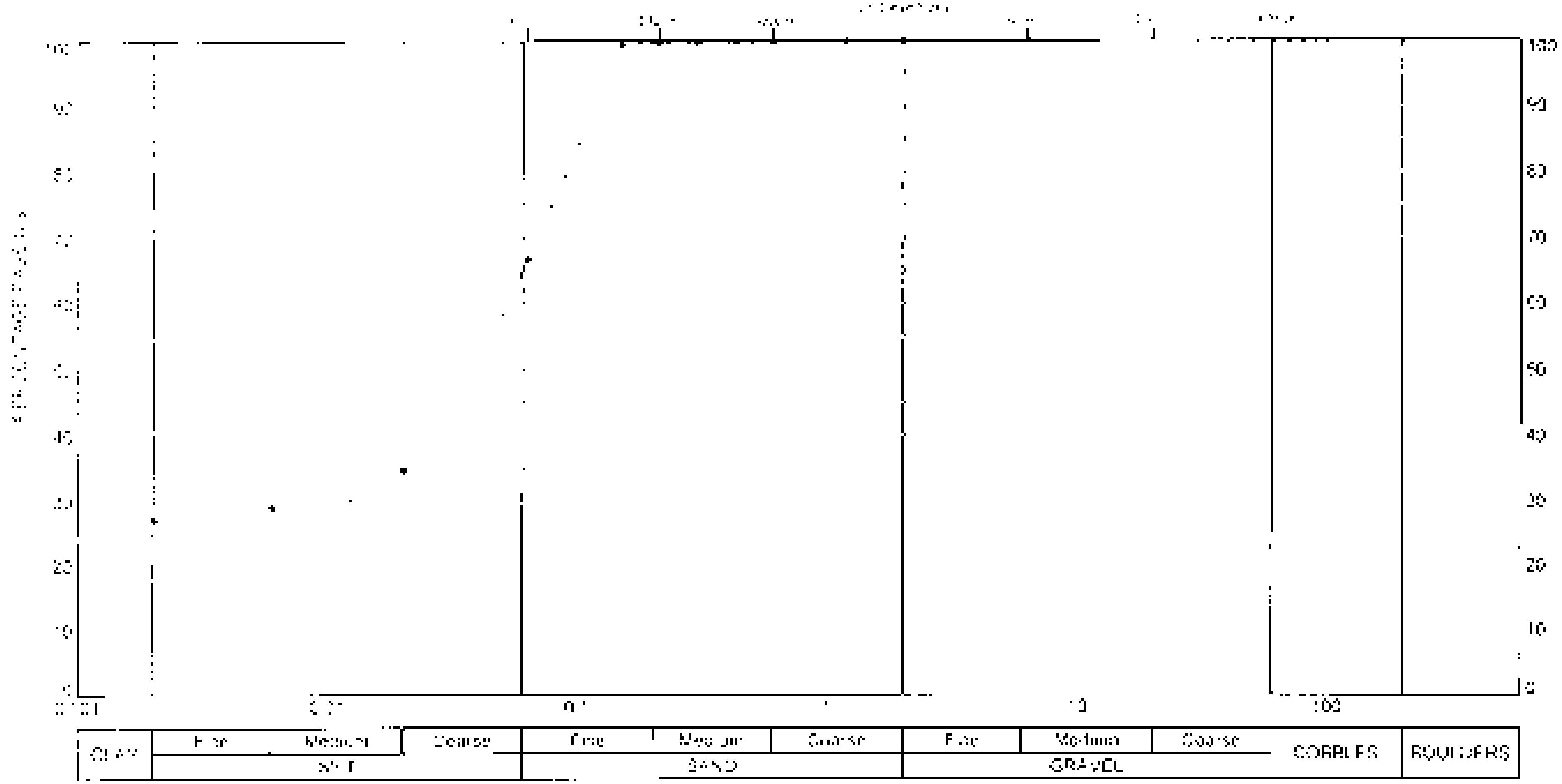
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP112 | Depth (m) : 3.20 | Sample Type & No : B11 | Sample Depth (m) : 3.20 | Date Tested : 16/10/2020



Sieve Size (mm)	Passing (%)
2	100.0
1.18	99.9
0.6	99.8
0.425	99.8
0.3	99.7
0.212	99.6
0.15	99.4
0.063	66.7
0.02	34.6
0.006	29.1
0.002	27.2

Sample description (see Laboratory Sample Description Sheet)

Date of Issue: 23/10/2020 | Certificate No: PSD 4251 PRAIRIE_AUK_TP112 B11 3.20 | Signed: | Name: | Page 1 of 1

Client: South Tees Development Corporation | Checked: | Prairie Site Ground Investigation Works | AEG Contract No: 4251

1367

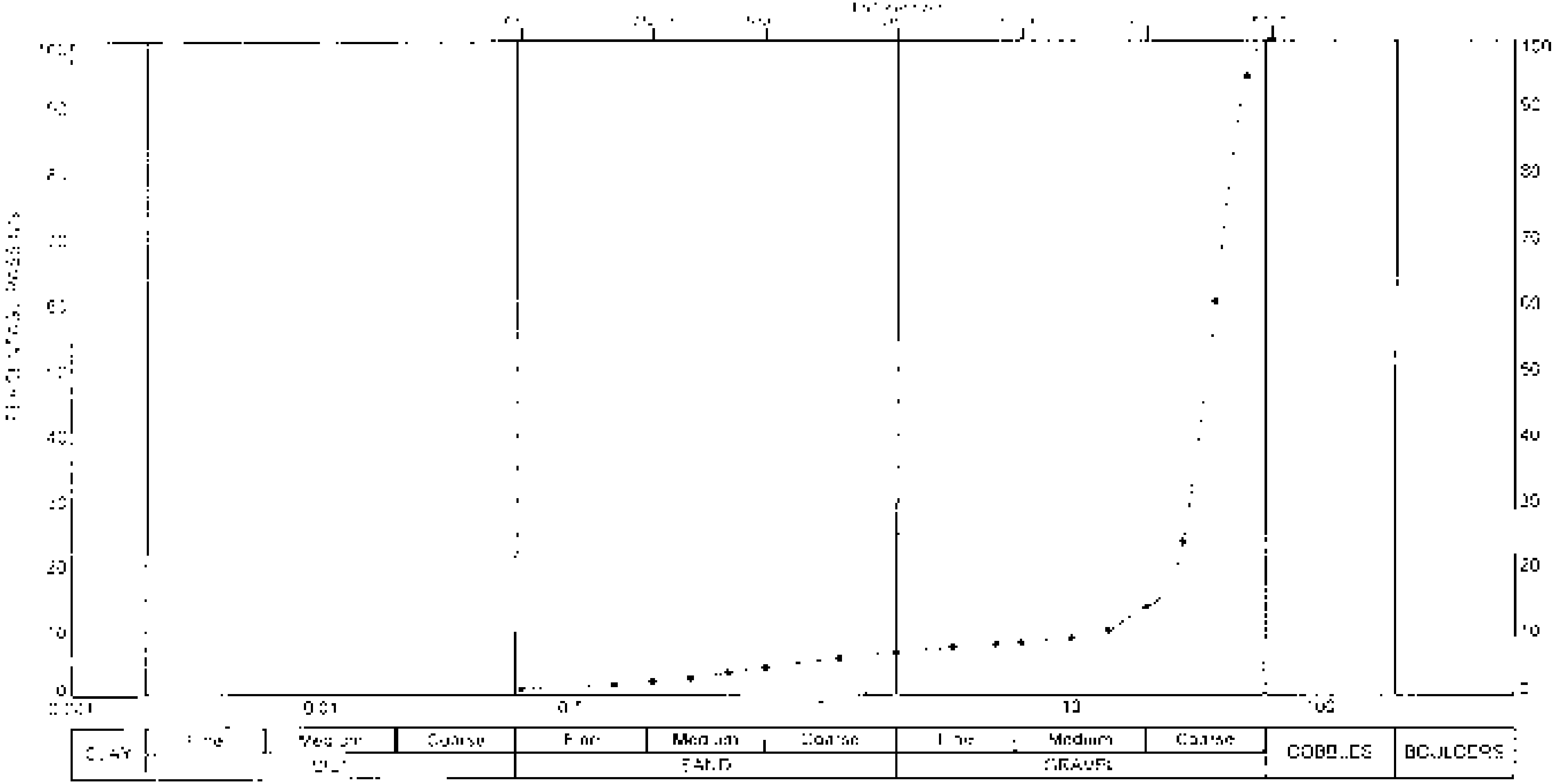
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No. - **PRAIRIE_AUK_TP113** Depth (m) - **1.80** Sample Type & No. - **B6** Specific Depth (m) - **1.80** Date Tested - **30/09/2020**



Sieve Size (mm)	Passing (%)
63	100.0
50	94.4
37.5	60.3
28	22.3
20	13.6
14	[illegible]
10	[illegible]
6.3	8.0
5	7.8
3.35	7.3
2	6.8
1.18	5.5
0.6	4.1
0.425	3.4
0.3	2.6
0.212	2.1
0.15	1.6
0.063	0.5

For description of sample refer to the Laboratory Sample Description sheet

Date of Issue - 30/10/2020 Certificate No. - PSD 4251-PRAIRIE_AUK_TP113 B6-1.80 Signed - [signature] Name - Page 1 of 1

Client - South Tees Development Corporation Contract Title - Prairie Site Ground Investigation Works AEG Contract No. - 4251

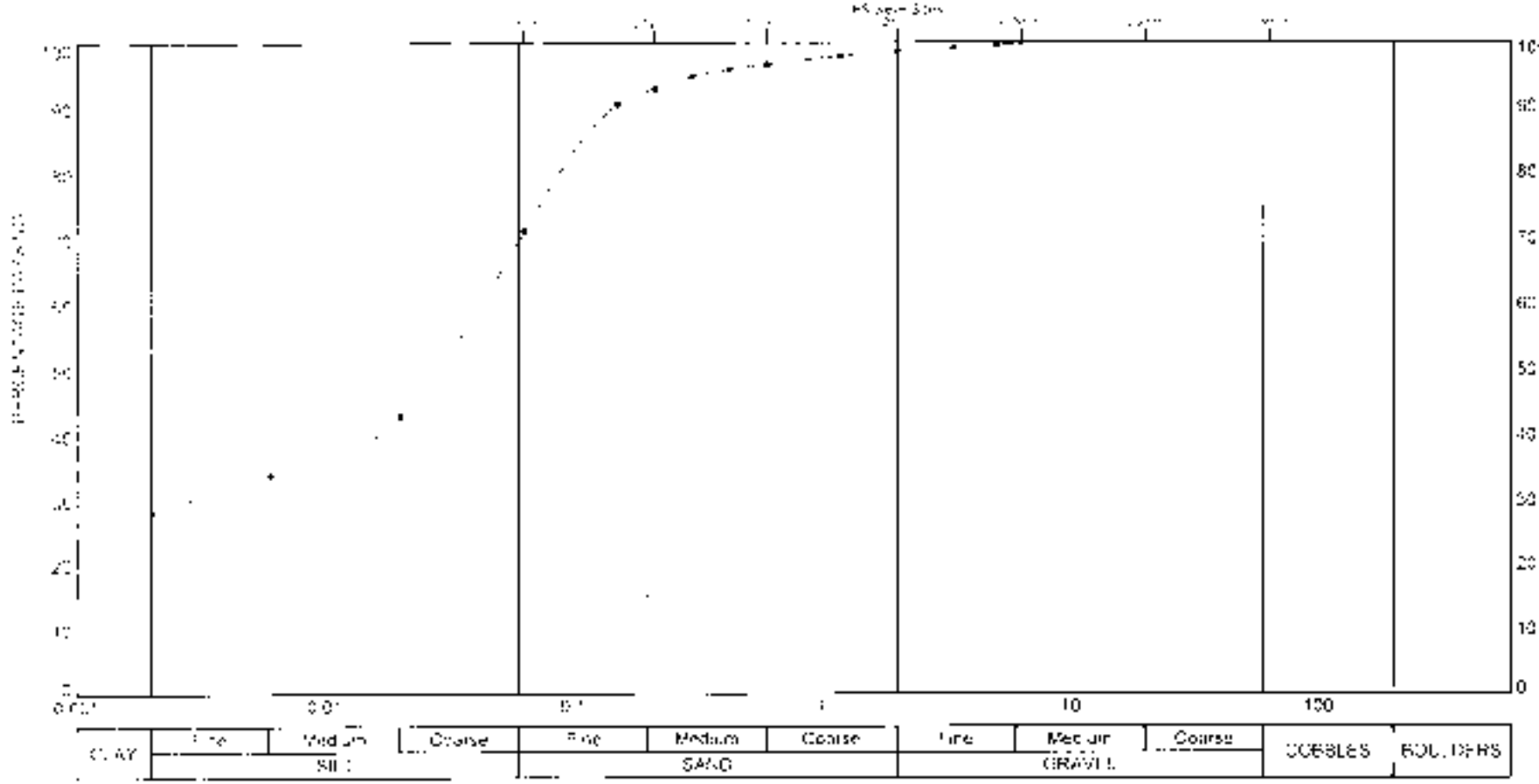
UKAS 1387

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Client Borehole No. : PRAIRIE_AUK TP113 | Depth (m) : 2.80 | Sample Type & No. : B8 | Specific Depth (m) : 2.80 | Date Tested : 22/09/2020



Sieve Size (mm)	Passing (%)
63	100.0
5	99.4
3.35	99.1
2	98.6
1.18	97.8
0.6	96.6
0.425	95.9
0.3	94.7
0.212	92.9
0.15	90.5
0.063	71.7
0.02	42.0
0.006	34.0
0.002	28.2

For description of soil & rock refer to the relevant sample description sheet

Date of Issue : 23.10.2020

Test Data File : PSD 4251.PRAIRIE_AUK_TP113 2.80 Sheet 1

Name :

Page 1 of 1

Client :

South East Development Corporation

Contract Title :

Proposed Ground Investigation Works

AEG Contract No. :

4251

1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

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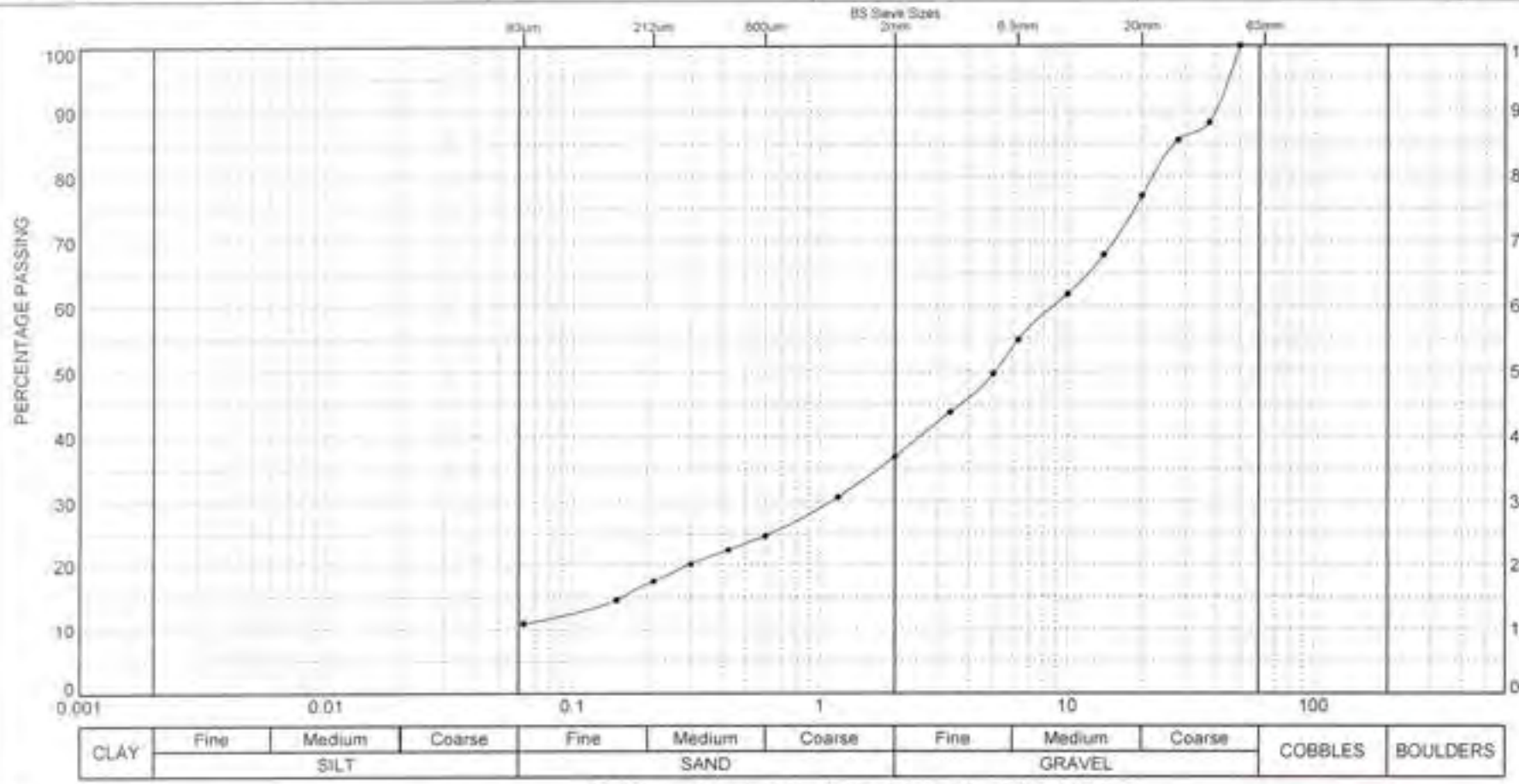
PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :-	Depth (m) :-	Sample Type & No :-	Specific Depth (m) :-	Date Tested :-
PRAIRIE_AUK_TP114	**0.40**	**B4**	**0.40**	**29/09/2020**



Sieve Size (mm)	Passing (%)
50	100.0
37.5	88.3
28	85.6
20	77.0
14	67.9
10	61.9
6.3	54.9
5	49.7
3.35	43.8
2	37.0
1.18	30.8
0.6	24.8
0.425	22.6
0.3	20.1
0.212	17.5
0.15	14.6
0.063	10.9

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP114/B4/0.40		SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

UKAS TESTING 1367

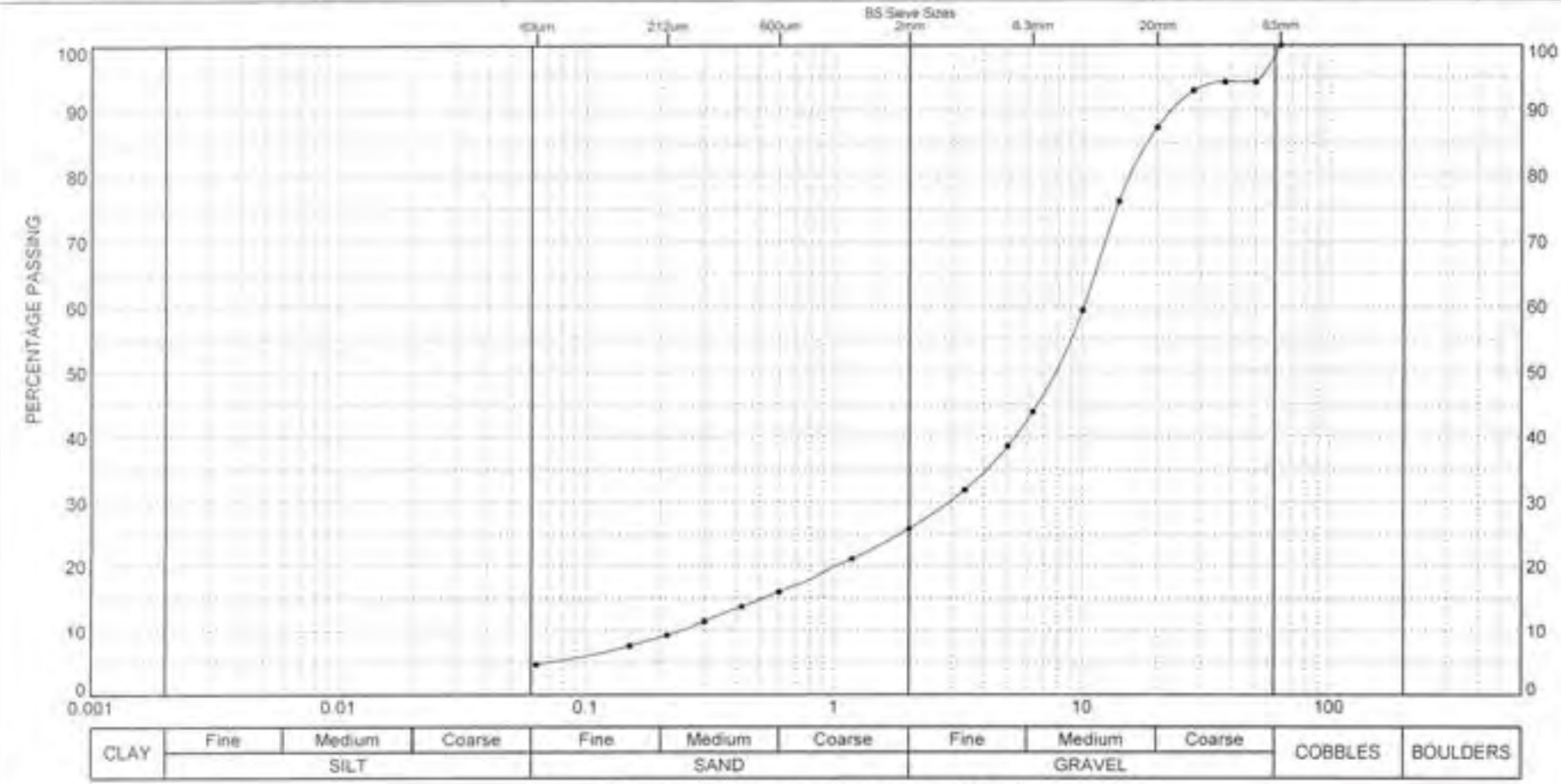
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 23 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 23, Riverside Development Centre, Eastern Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_TP115**	Depth (m) :- **1.70**	Sample Type & No :- **B5**	Specific Depth (m) :- **1.70**	Date Tested :- **14/10/2020**



Sieve Size (mm)	Passing (%)
63	100.0
50	94.3
37.5	94.3
28	93.0
20	87.4
14	76.1
10	59.5
6.3	43.9
5	38.6
3.35	31.9
2	26.0
1.18	21.2
0.6	15.9
0.425	13.8
0.3	11.4
0.212	9.3
0.15	7.6
0.063	4.7

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
23/10/2020	PSD/4251/PRAIRIE_AUK_TP115/B5/1.70	mseve		

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

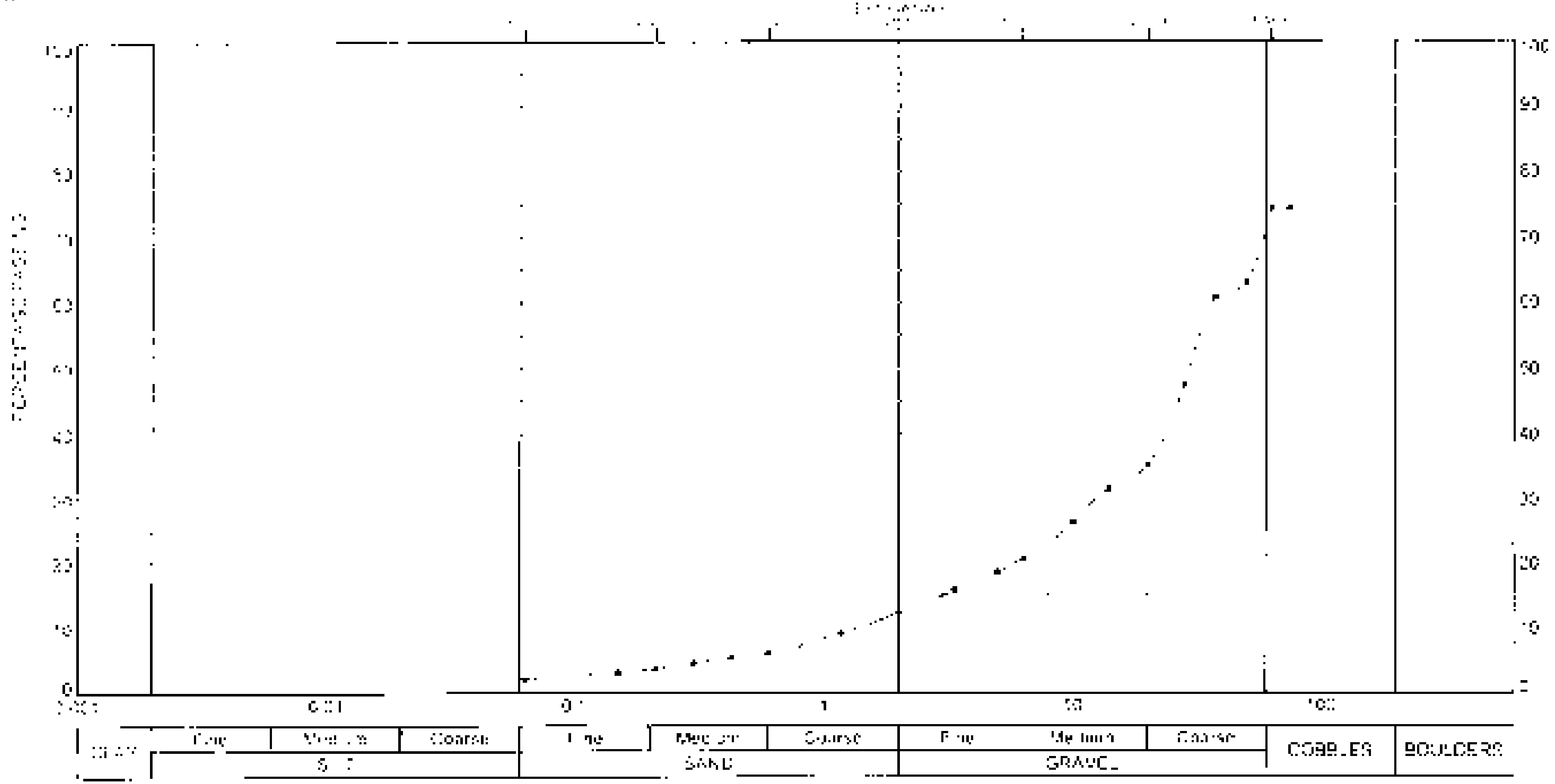
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No - PRAIRIE_AUK_TP117 | Depth (m) - 2.00 | Sample Type & No - B5 | Specific Depth (m) - 2.00 | Date Tested - 16/10/2020



Sieve Size (mm)	Passing (%)
75	74.4
63	74.4
50	63.1
37.5	60.4
28	47.5
20	39.3
14	31.7
10	25.6
6.3	20.6
5	18.8
3.35	15.7
2	12.2
1.18	9.1
0.6	6.7
0.425	5.4
0.3	4.5
0.212	3.7
0.15	3.7
0.063	2.2

For details of the sample description refer to the Laboratory Sample Description Sheet

Date of Issue - 20/10/2020 | Certificate No - PSD 4251 PRAIRIE_AUK_TP117 B5 2.00 | Signed - msoe | Name - | Page 1 of 1

Client - South Tees Development Corporation | Contract Title - Prairie Site Ground Investigation Works | AEG Contract No - 4251

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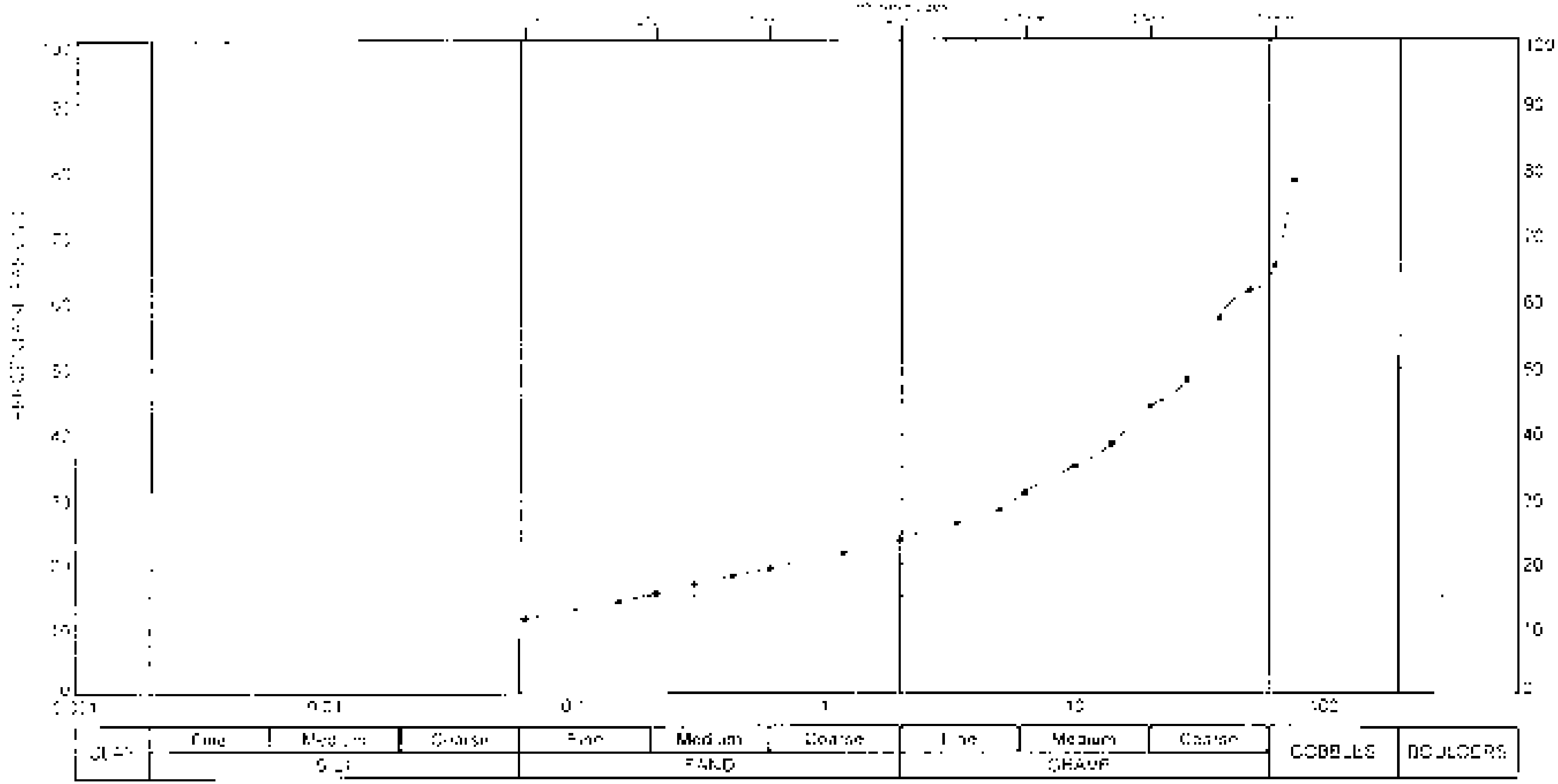
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP117 | Depth (m) : 0.20 | Sample Type & No : B9 | Specific Depth (m) : 0.20 | Date Tested : 16/10/2020



Sieve Size (mm)	Passing (%)
75	76.2
63	65.7
50	61.5
37.5	57.8
28	48.4
20	44.3
14	39.6
10	35.2
6.3	31.2
5	28.6
3.35	26.5
2	24.0
1.18	21.8
0.6	19.2
0.425	18.2
0.3	16.8
0.212	15.4
0.15	14.2
0.063	11.4

For description of sample refer to the Laboratory Sample Description Sheet

Date of Issue: 23/10/2020

Certificate No: PSD4251-PRAIRIE_AUK_TP117 B9 0.20

Signed: [signature] | Name : | Page 1 of 1

Client: North Tees Development Corporation

Contract Title: Prairie Site Ground Investigation Works

AEG Contract No : 4251

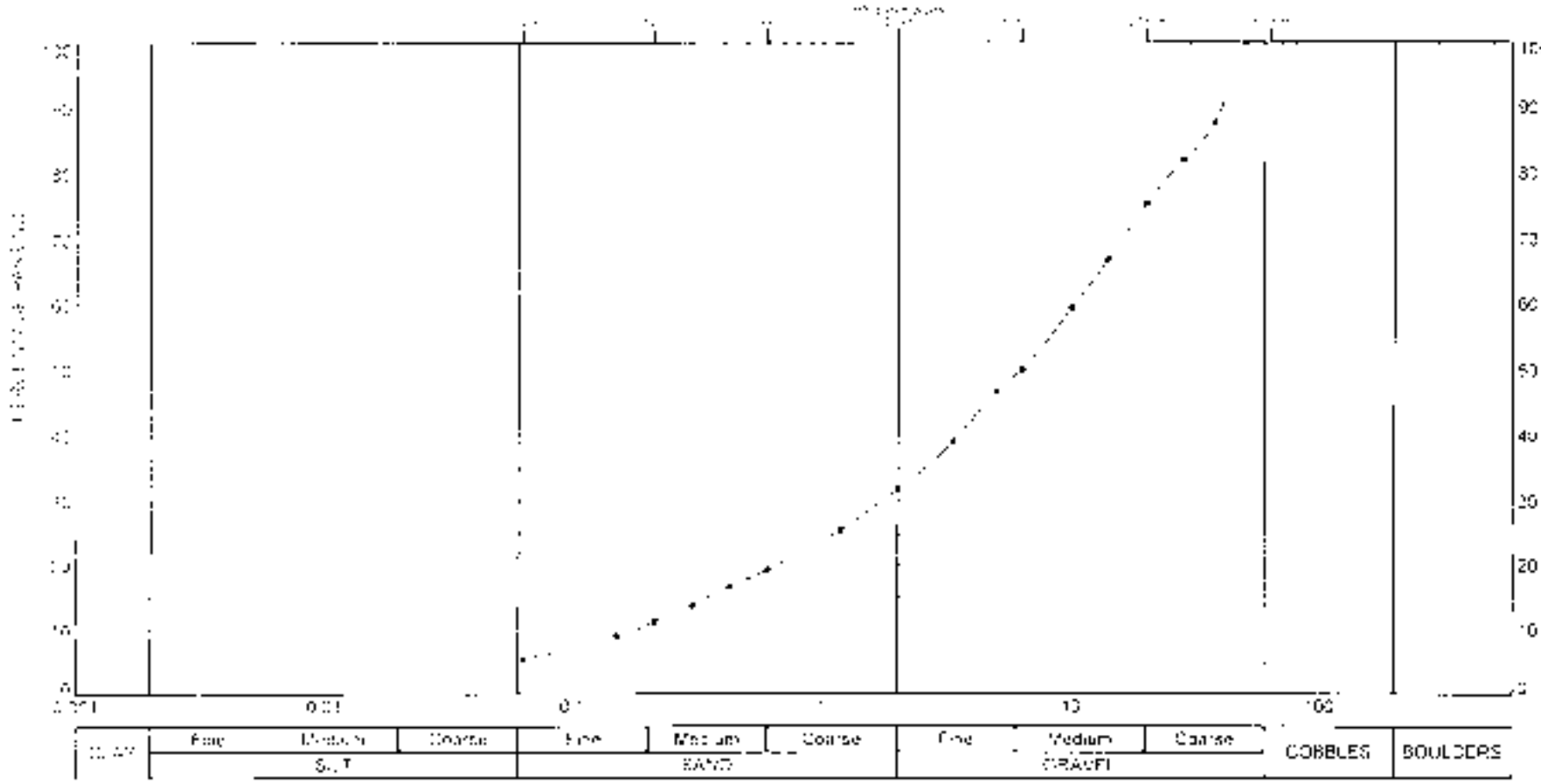
UKAS 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 - Clause 9.2 & 9.4 , 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No. - PRAIRIE_AUK_TP118 | Depth (m) - 1.00 | Sample Type & No. - B2 | Specified Depth (m) - 1.00 | Date Tested - 19/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	97.7
28	92.0
20	75.4
14	65.9
10	58.5
6.3	50.1
5	45.7
3.35	39.2
2	34.6
1.18	25.6
0.6	19.2
0.425	16.6
0.3	13.8
0.212	11.2
0.15	9.0
0.063	4.6

Date of Issue: 20.10.2020

Certificate No.: PSD 4251 PRAIRIE AUK TP118 B2 1.00

Signed: MSDO

Name:

Page 1 of 1

Client: South Tees Development Corporation

Contract Title: Prairie Site Ground Investigation Works

AEG Contract No.: 4251

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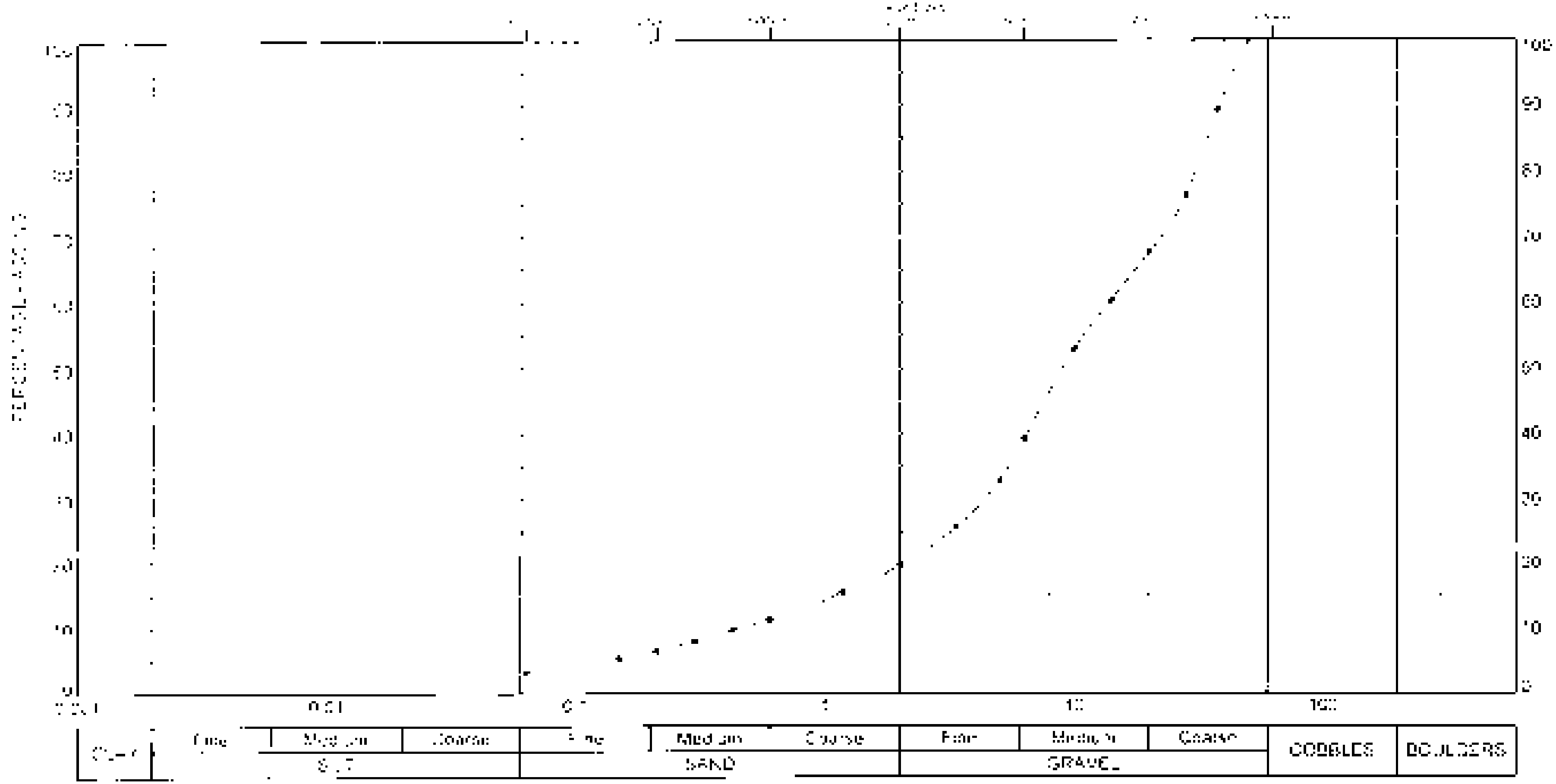
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No - PRAIRIE_AUK_TP119 | Depth (m) - 1.00 | Sample Type & No - D2 | Specific Depth (m) - 1.00 | Date Tested - 19/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	89.3
28	[illegible]
20	[illegible]
14	60.3
10	53.0
6.3	33.3
5	32.0
3.35	25.8
2	19.7
1.18	15.5
0.6	11.3
0.425	9.7
0.3	8.2
0.212	6.6
0.15	5.4
0.063	3.7

For description of soil please refer to the Laboratory Sample Description Sheet

Date of Issue - 20/10/2020 | Certificate No - PSD 4251-PRAIRIE_AUK_TP119 D2 1.00 | Signed - | Name - | Page 1 of 1

Client - Green Tees Development Corporation | Contract Title - Prairie Site Ground Investigation Works | AEG Contract No - 4251

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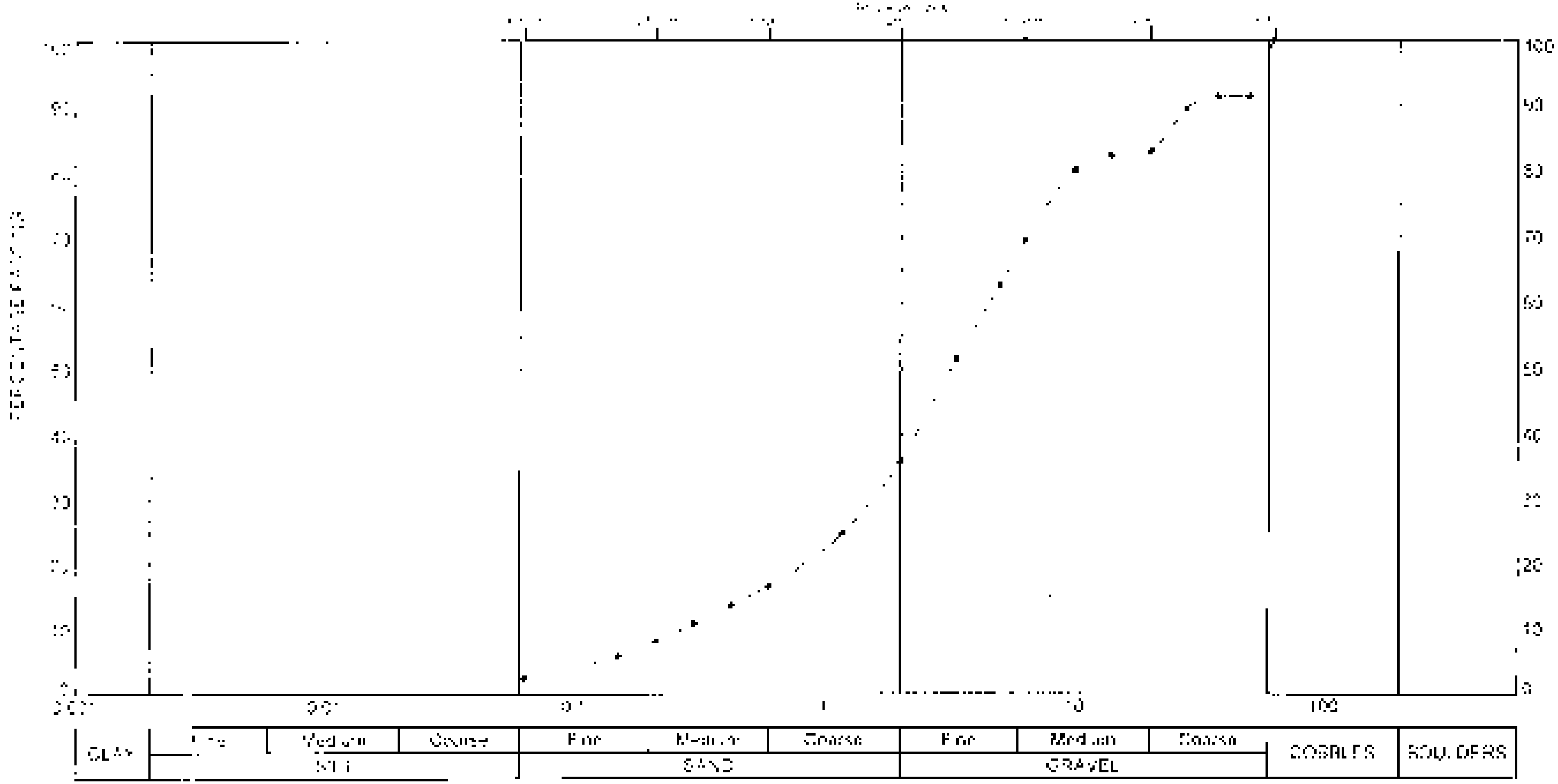
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP110 | Depth (m) : 2.00 | Sample Type & No : B5 | Specific Depth (m) : 2.00 | Date Tested : 19/10/2020



Sieve Size (mm)	Passing (%)
63	100.0
50	91.4
37.5	91.4
28	89.5
20	83.0
14	82.4
10	80.2
6.3	69.5
5	62.8
3.35	51.5
2	35.5
1.18	25.1
0.6	16.5
0.425	13.7
0.3	10.9
0.212	8.1
0.15	5.9
0.063	2.5

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 22/10/2020 | Certificate No : PSD 4251 PRAIRIE_AUK_TP110/B5/2.00 | Signed : | Name : | Page 1 of 1

Client : South Teesside Development Corporation | Contract Title : Prairie Site Ground Investigation Works | AEG Contract No : 4251

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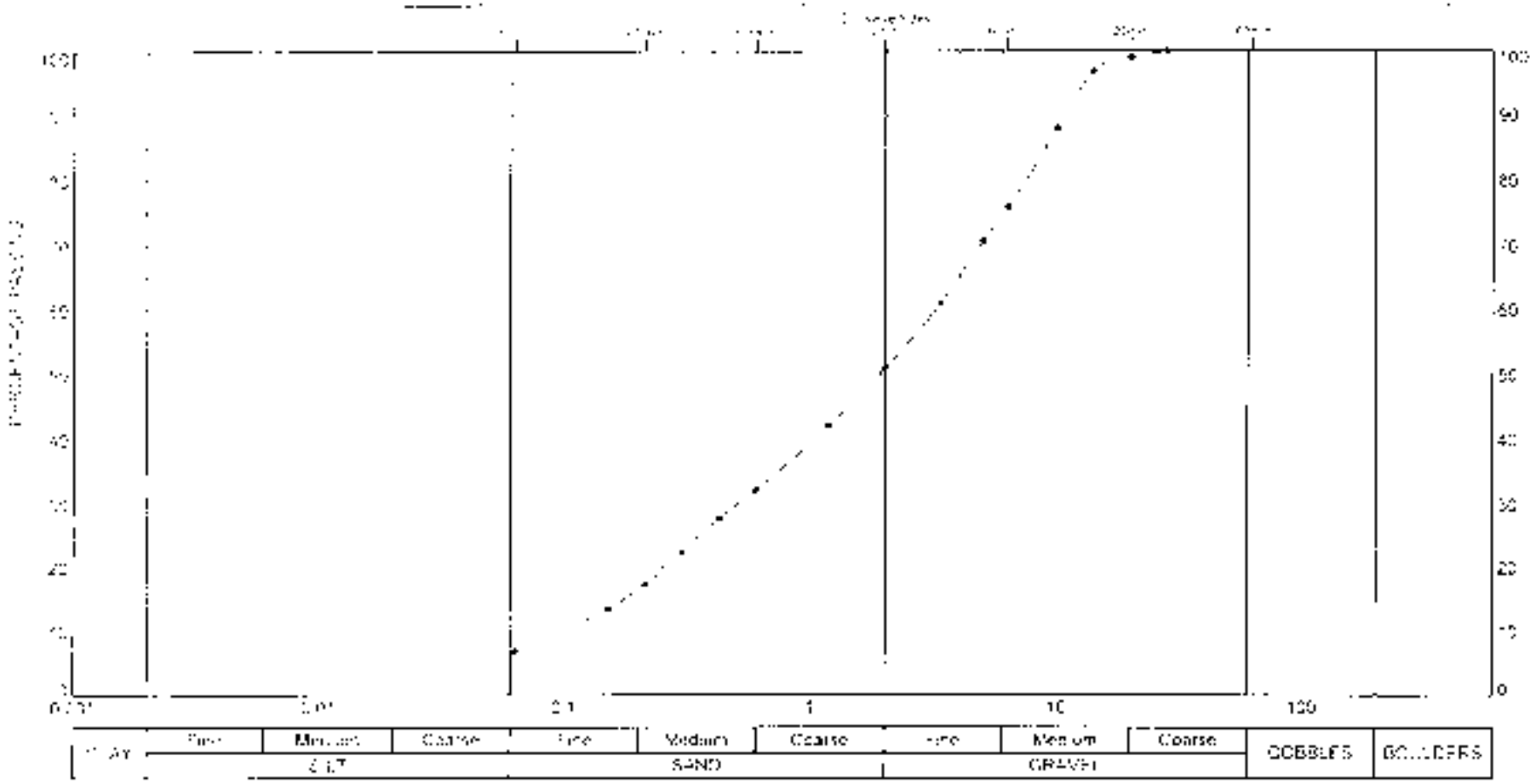
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

DS1377 - Part 2 - Clause 9.2 & 9.4 - 1990

Exploratory Hole No. - PRAIRIE_AUK_TP120A | Depth (m) - 0.80 | Sample Type & No. - B2 | Specific Depth (m) - 0.80 | Date Tested - 15/12/2020



Sieve Size (mm)	Passing (%)
28	100.0
20	98.0
14	96.5
10	88.1
6.3	76.0
5	70.7
2.36	61.1
2	59.1
1.18	42.2
0.6	32.3
0.425	27.9
0.3	22.0
0.212	17.3
0.15	13.4
0.063	8.9

Date of Issue: 23/12/2020

Certificate No.: PSD 4251 PRAIRIE_AUK_TP120A B2 0.80 Signed: MSand Name:

Page 1 of 1

Client: South Tees Development Corporation

Contract Title: Prairie Site Ground Investigation Works

AEG Contract No.: 4251

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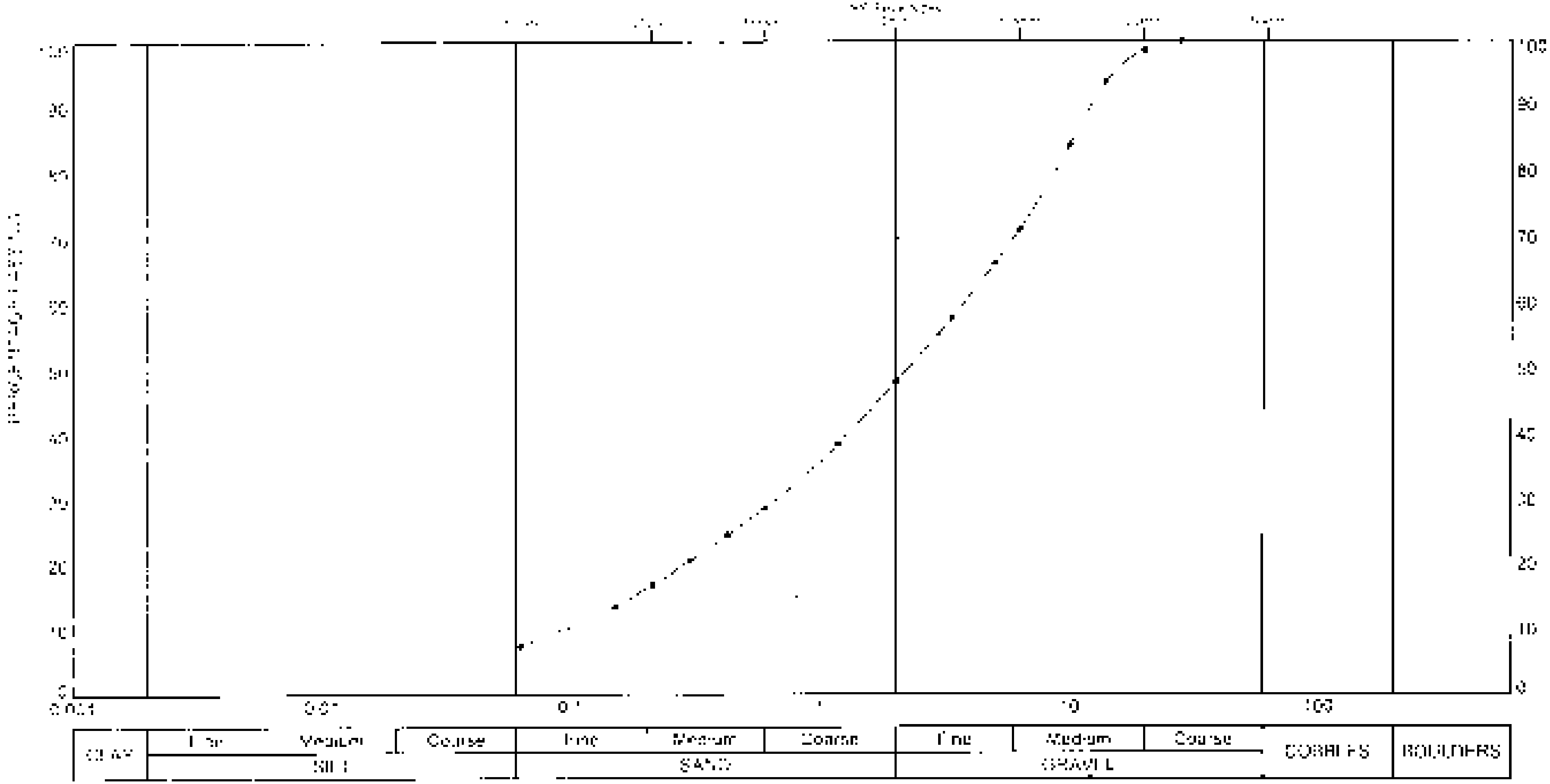
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP121 | Depth (m) : 0.80 | Sample Type & No : B2 | Specific Depth (m) : 0.80 | Date Tested : 01/10/2020



Sieve Size (mm)	Passing (%)
20	100.0
20	98.5
14	93.7
10	84.1
6.3	71.4
5	66.2
3.35	57.8
2	48.2
1.18	38.7
0.6	28.9
0.425	24.9
0.3	20.6
0.212	16.9
0.15	13.5
0.063	7.5

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 20.10.2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP121 B2 0.80

Signed : MSoo

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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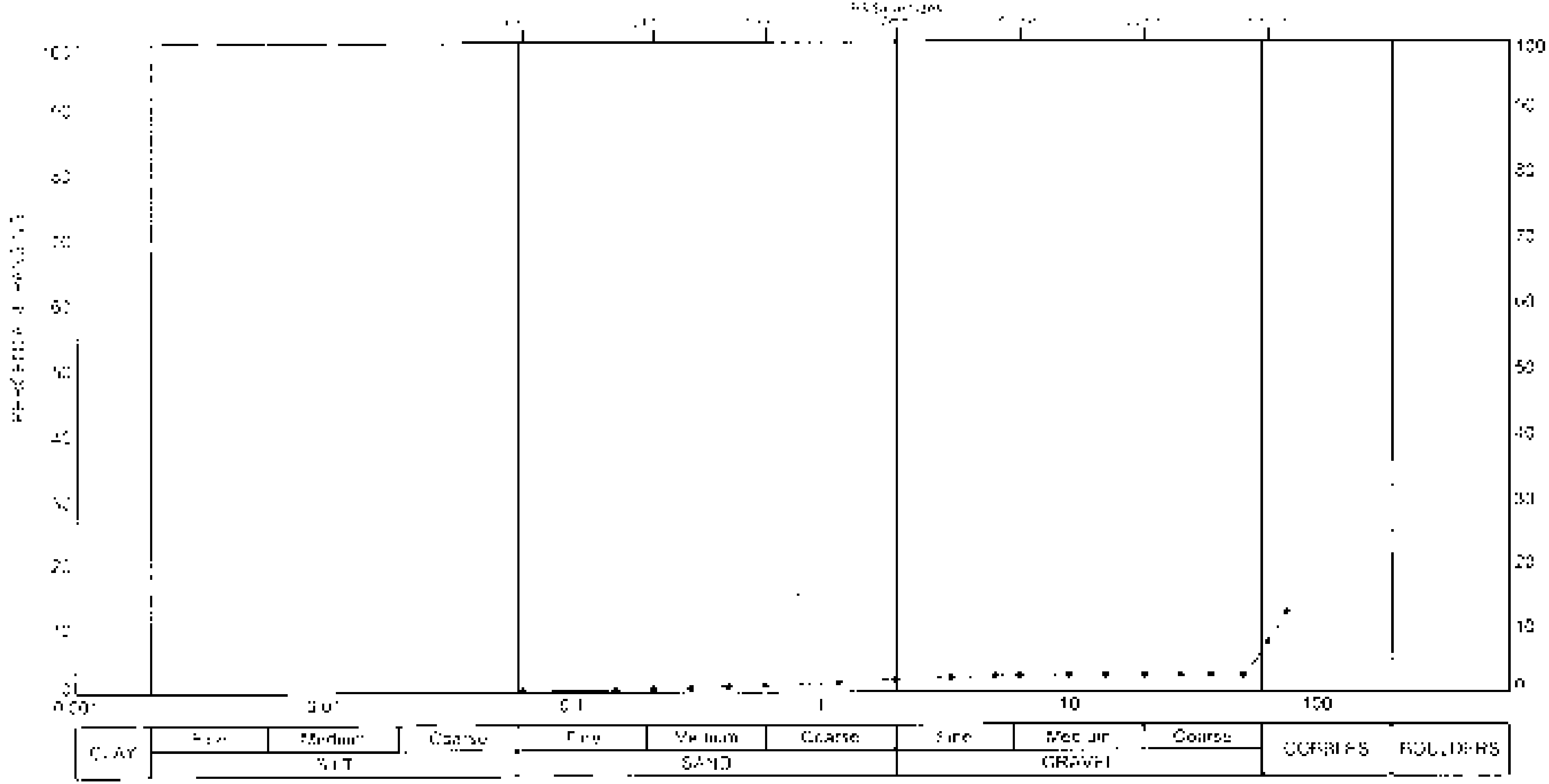
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP123 | Depth (m) : 0.50 | Sample Type & No : B2 | Specific Depth (m) : 0.50 | Date Tested : 28/09/2020



Sieve Size (mm)	Passing (%)
75	12.2
63	7.6
50	2.7
37.5	2.7
28	2.7
20	2.7
14	2.7
10	2.7
6.3	2.6
5	2.5
3.35	2.3
2	2.0
1.18	1.5
0.6	1.0
0.425	0.9
0.3	0.7
0.212	0.6
0.15	0.4
0.063	0.3

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 09/10/2020

Certificate No : PSD 4251/PRAIRIE_AUK_TP123 B2-0.50

Signed : msoe

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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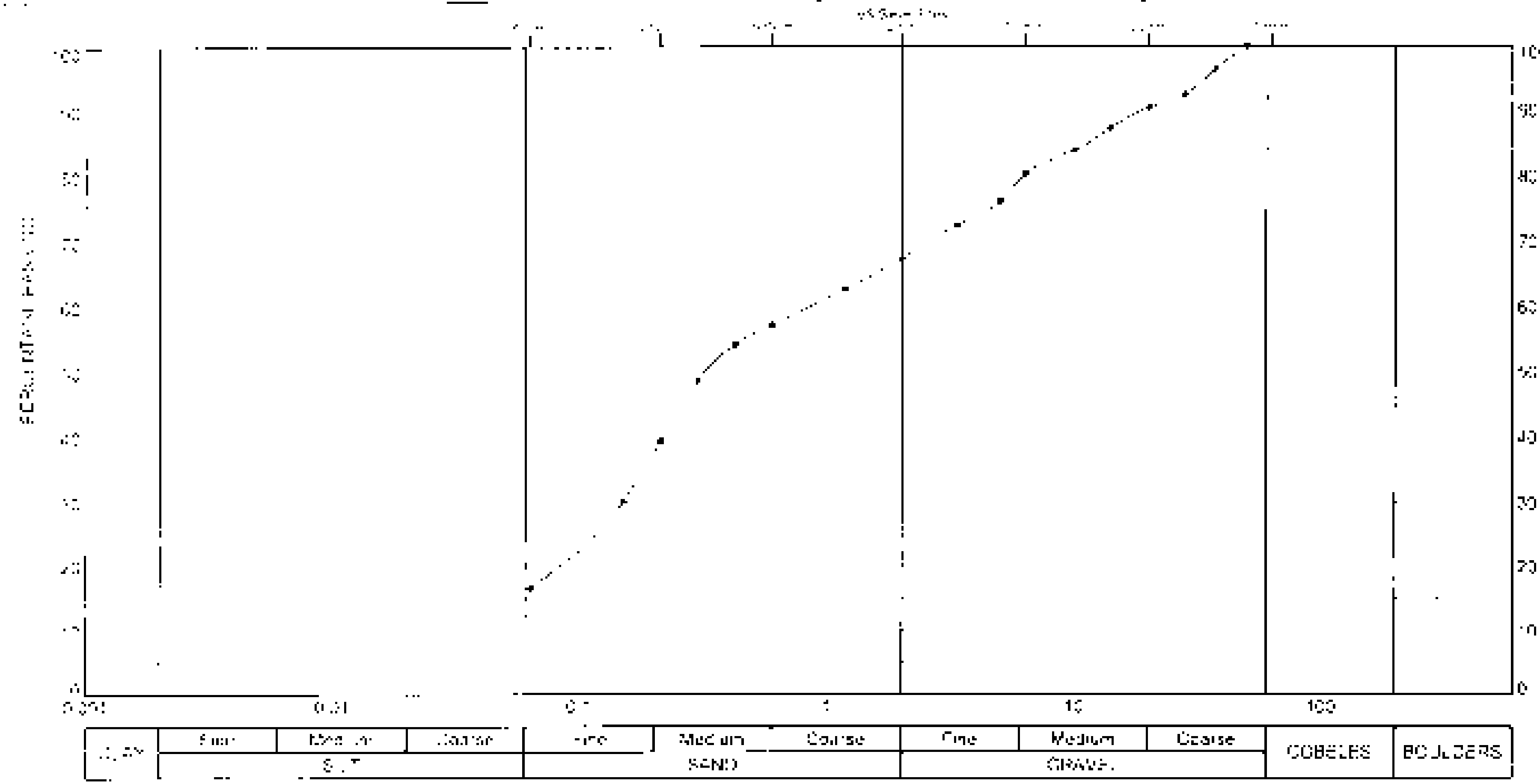
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No - PRAIRIE_AUK_TP124 | Depth (m) - 1.50 | Sample Type & No - B4 | Specimen Depth (m) - 1.50 | Date Tested - 29/09/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	96.5
28	92.5
20	90.5
14	87.4
10	84.0
6.3	80.4
5	78.3
3.35	72.6
2	67.5
1.18	62.8
0.6	57.3
0.425	54.3
0.3	48.8
0.212	39.5
0.15	32.3
0.063	15.4

For description of sample please refer to the Laboratory Sample Description sheet

Date of Issue - 30/10/2020 | Certificate No - PSD 4251-PRAIRIE_AUK_TP124 B4 1.50 | Signed - | Name - | Page 1 of 1

Client - Adani Port Development Corporation | Contract Title - Prairie Site Ground Investigation Works | AEG Contract No - 4251

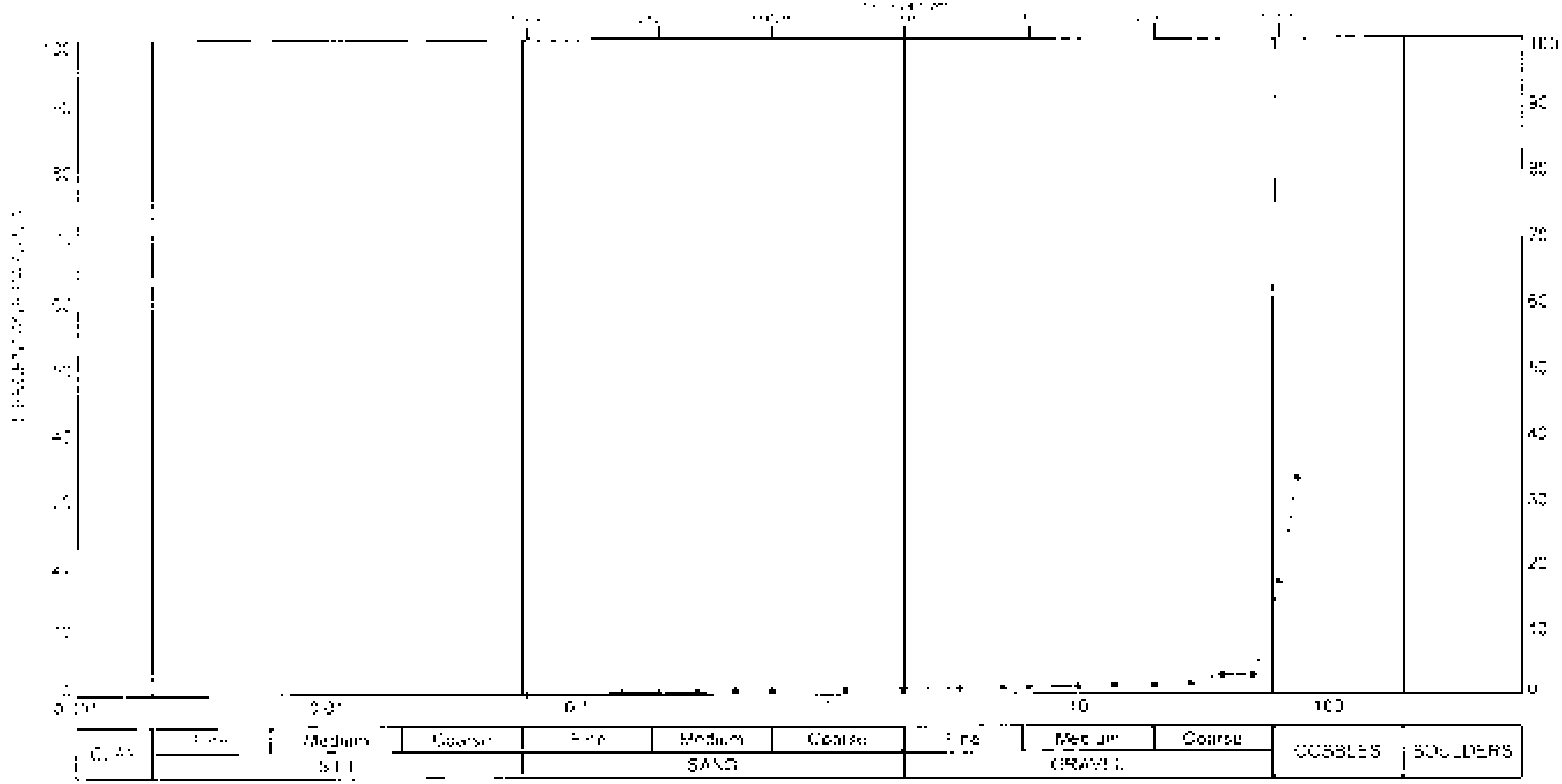
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP126 | Depth (m) : 1.80 | Sample Type & No : B4 | Specific Depth (m) : 1.80 | Date Tested : 16/10/2020



Sieve Size (mm)	Passing (%)
75	33.7
63	17.2
50	3.0
37.5	3.3
28	1.7
20	1.4
14	1.4
10	1.2
6.3	1.1
5	1.0
3.35	0.9
2	0.8
1.18	0.7
0.6	0.5
0.425	0.5
0.3	0.4
0.212	0.3
0.15	0.2
0.063	0.0

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 23/10/2020 | Certificate No : PSD/4251/PRAIRIE_AUK_TP126 B4 1.80 | Signed : | Name : | Page 1 of 1

Client : South Tees Development Corporation | Contract Title : Prairie Site Ground Investigation Works | AEG Contract No : 4251

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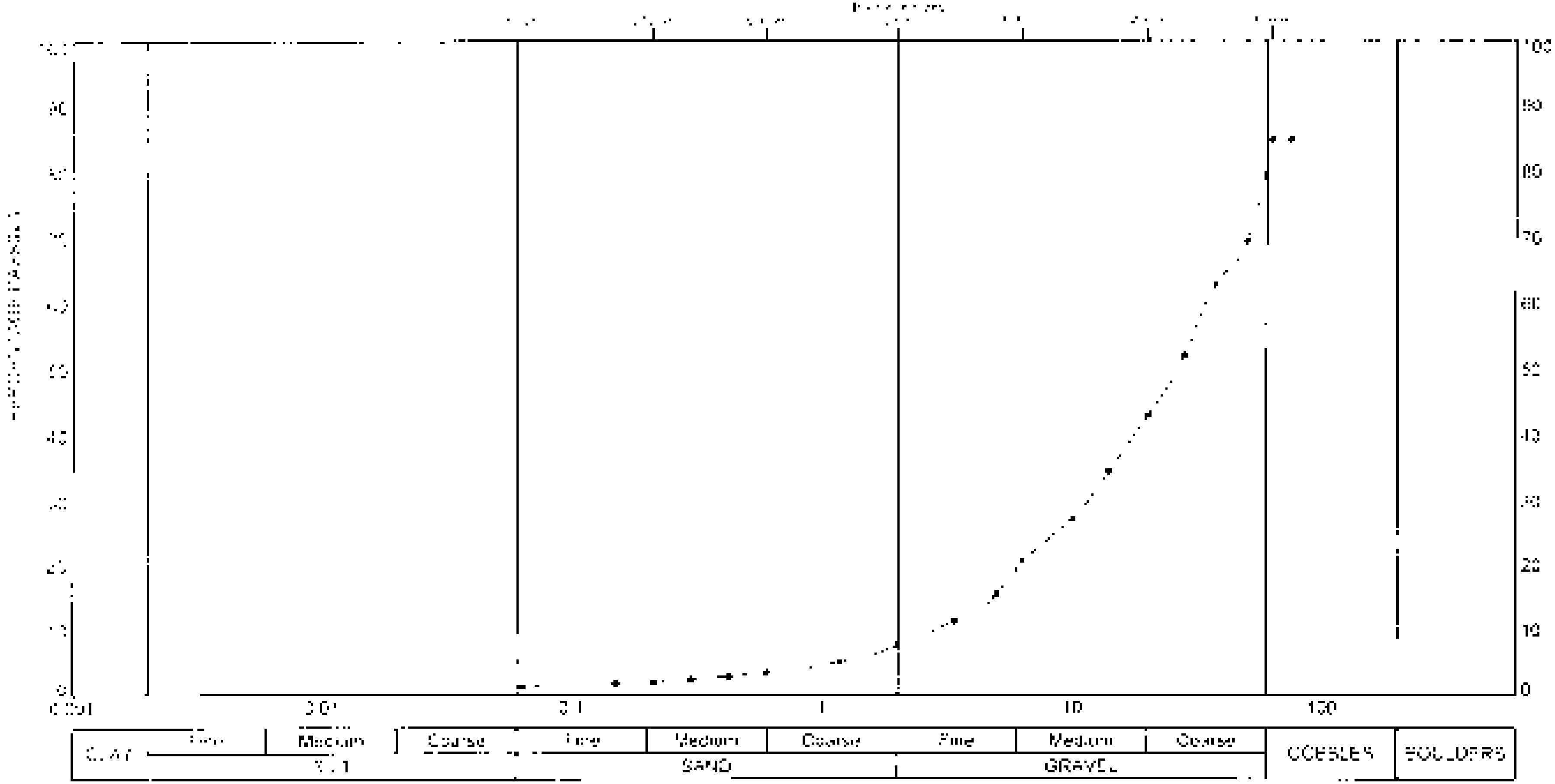
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP132 | Depth (m) : 2.00 | Sample Type & No : B8 | Specific Depth (m) : 2.00 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
75	84.9
63	84.9
50	69.5
37.5	63.0
28	52.1
20	45.1
14	34.8
10	27.3
6.3	20.5
5	15.4
3.35	11.3
2	7.6
1.18	5.0
0.6	3.4
0.425	2.6
0.3	2.4
0.212	2.0
0.15	1.6
0.063	1.3

For sample description please refer to the Laboratory Sample Description Sheet

Date of Issue : 20.10.2020

Certificate No : [illegible]

Signed [signature]

Name

Page 1 of 1

Client : South Sea Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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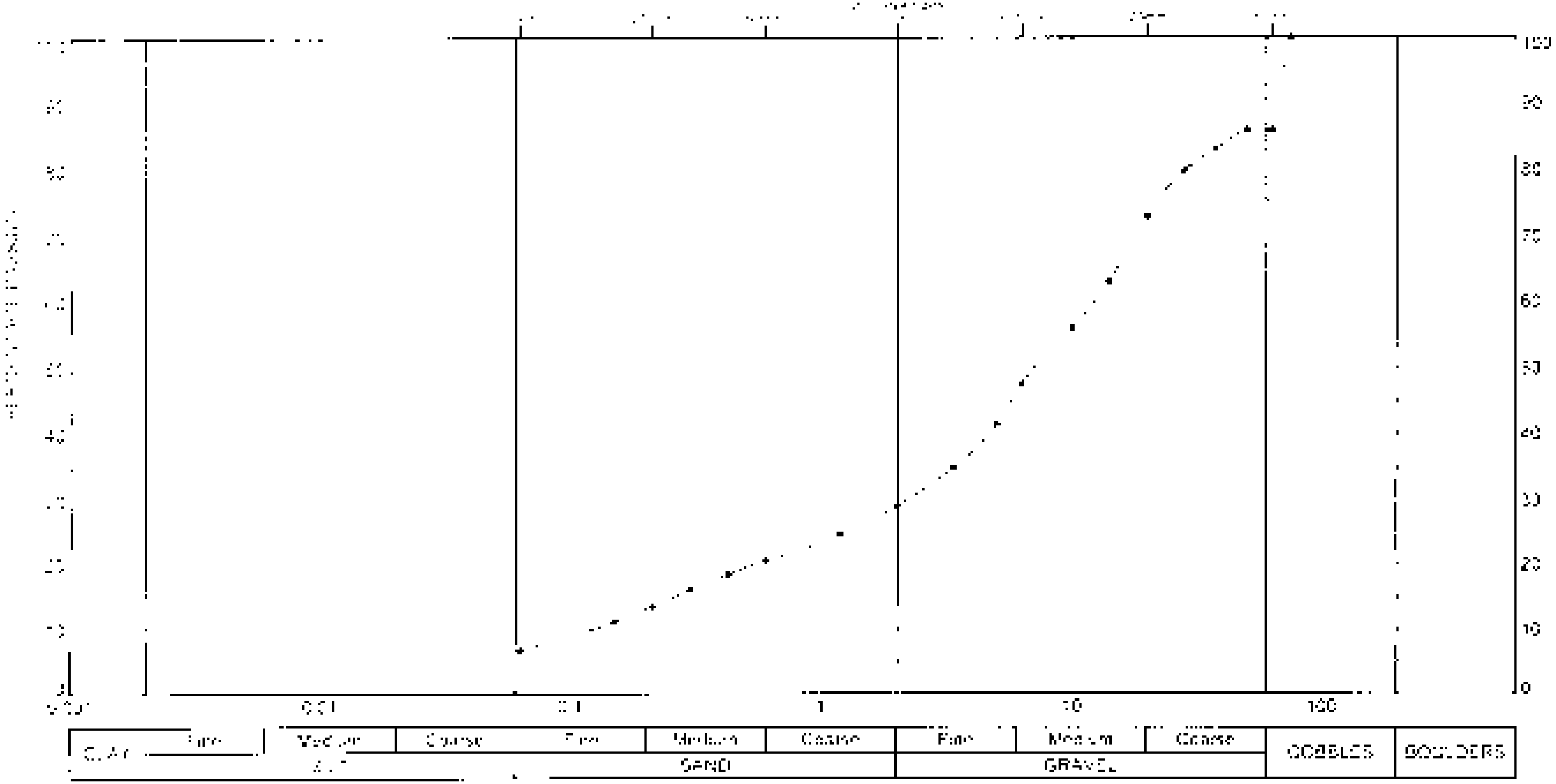
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP134 Depth (m) : 0.80 Sample Type & No : B2 Sub-No/Depth (m) : 0.80 Date Tested : 15/10/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	86.3
50	85.9
37.5	83.7
28	79.1
20	73.3
14	63.0
10	55.0
6.3	47.6
5	41.5
3.35	34.9
2	29.1
1.18	24.8
0.6	20.4
0.425	19.4
0.3	16.0
0.212	12.4
0.15	11.1
0.063	6.6

For description of sample, please refer to the Laboratory Sample Description Sheet

Date of Issue : 23/10/2020

Certificate No : PRAIRIE_AUK_TP134-B2-0.80

Signed: MSore Name:

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4751

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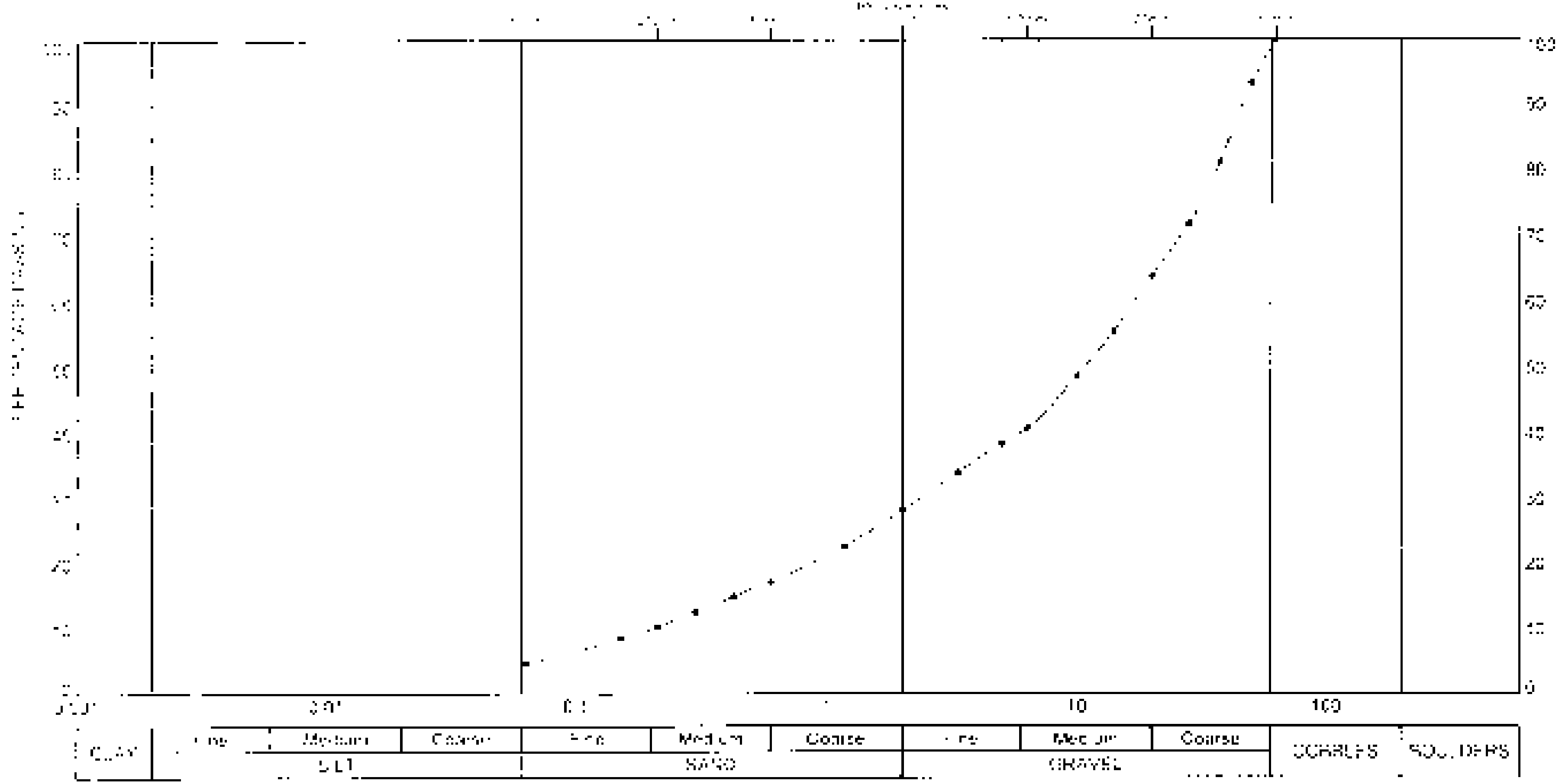
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUX_TP135 Depth (m) : 1.00 Sample Type & No : B3 Specific Depth (m) : 1.00 Date Tested : 14/10/2020



Sieve Size (mm)	Passing (%)
63	100.0
50	[illegible]
37.5	81.2
28	71.9
20	[illegible]
14	[illegible]
10	[illegible]
6.3	40.8
5	33.5
3.35	[illegible]
2	[illegible]
1.18	22.9
0.6	[illegible]
0.425	14.9
0.3	[illegible]
0.212	10.3
0.15	8.4
0.063	4.6

Certificate No : PSD 4251 PRAIRIE_AUX_TP135 B3 1.00 Signed : msne Name

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

Page 1 of 1

AEG Contract No : 4251

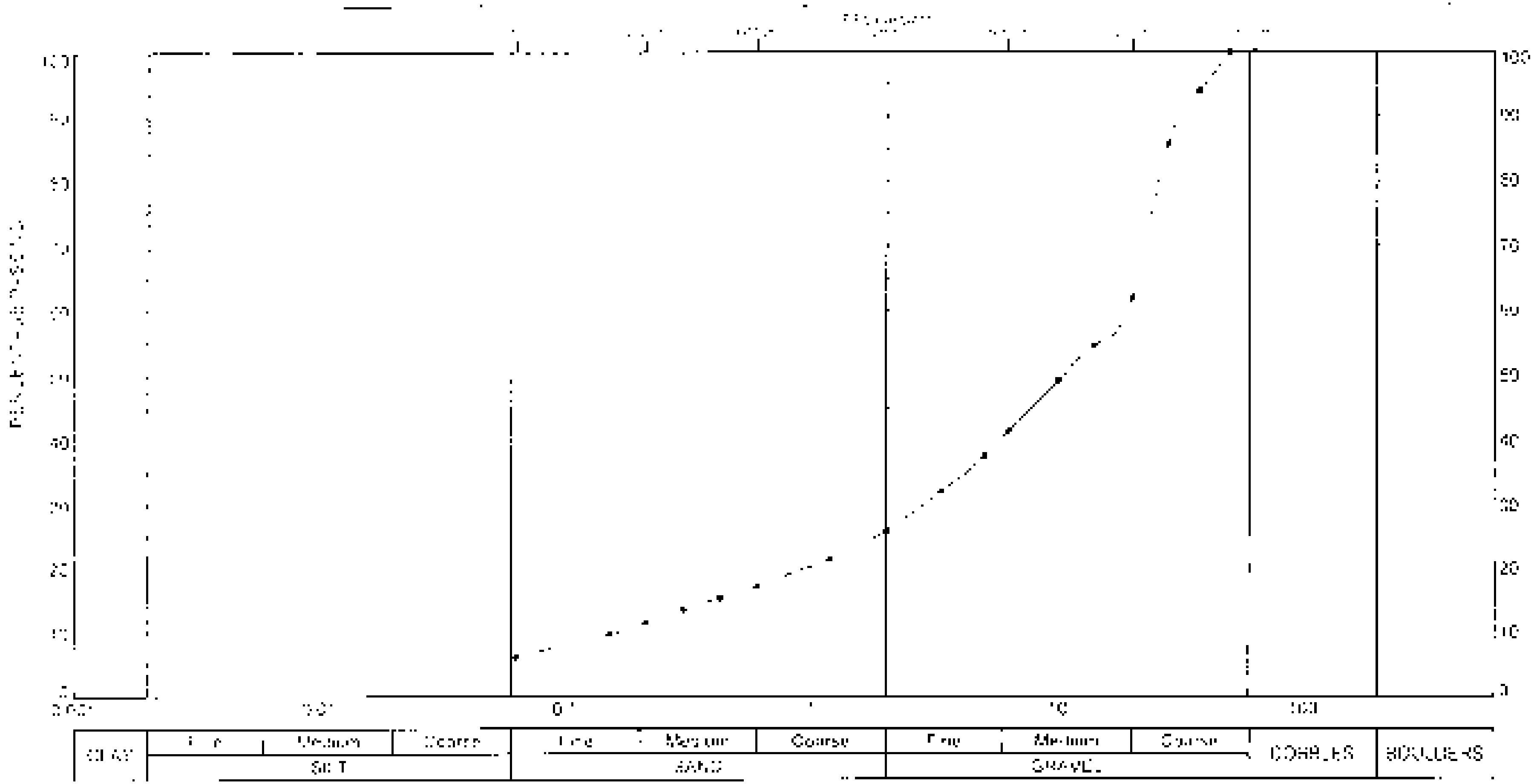
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP137 Depth (m) : 1.00 Sample Type & No : B4 Specific Depth (m) : 1.00 Date Tested : 19/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	93.9
28	85.7
20	61.9
14	54.5
10	49.2
6.3	41.5
5	37.6
3.35	32.2
2	26.1
1.18	21.5
0.6	17.3
0.425	15.3
0.3	13.8
0.212	11.5
0.15	9.7
0.063	6.2

Date of Issue: 30/10/2020

Certificate No: PSD 4251 PRAIRIE_AUK_TP137 B4 1.00 Signed: Name:

Client: South Tees Development Corporation

Contract Title: Prairie Site Ground Investigation Works

Page 1 of 1

AEG Contract No: 4251

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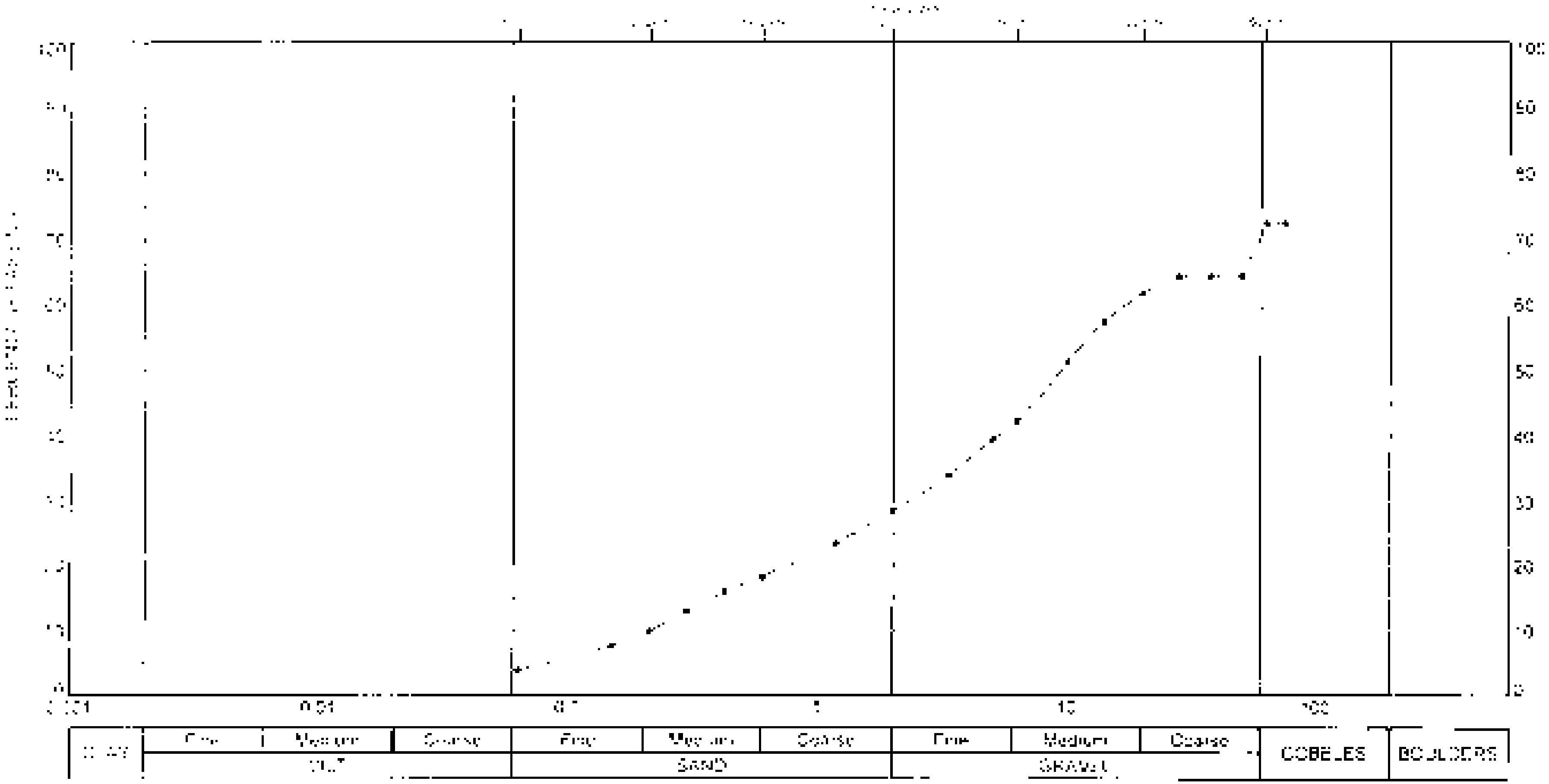
[illegible]

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

[illegible] : PRAIRIE_AUK_TP138 | Depth (m) : 1.00 | Sample Type & No. : B2 | Specific Depth (m) : 1.00 | Date Tested : 15/10/2020



Sieve Size (mm)	Passing (%)
75	72.3
63	72.5
50	64.2
37.5	64.2
28	64.2
20	61.6
14	57.3
10	51.7
6.3	42.3
5	39.4
3.35	34.0
2	29.6
1.18	23.6
0.6	18.7
0.425	15.8
0.3	12.5
0.212	9.9
0.15	7.8
0.063	3.8

[illegible]

Date of Issue: 20/10/2020

Certificate No: PSD-4251-PRAIRIE_AUK_TP138-B2-1.00

Signed: msene

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : [illegible] Site Ground Investigation Works

AEG Contract No. : 4251

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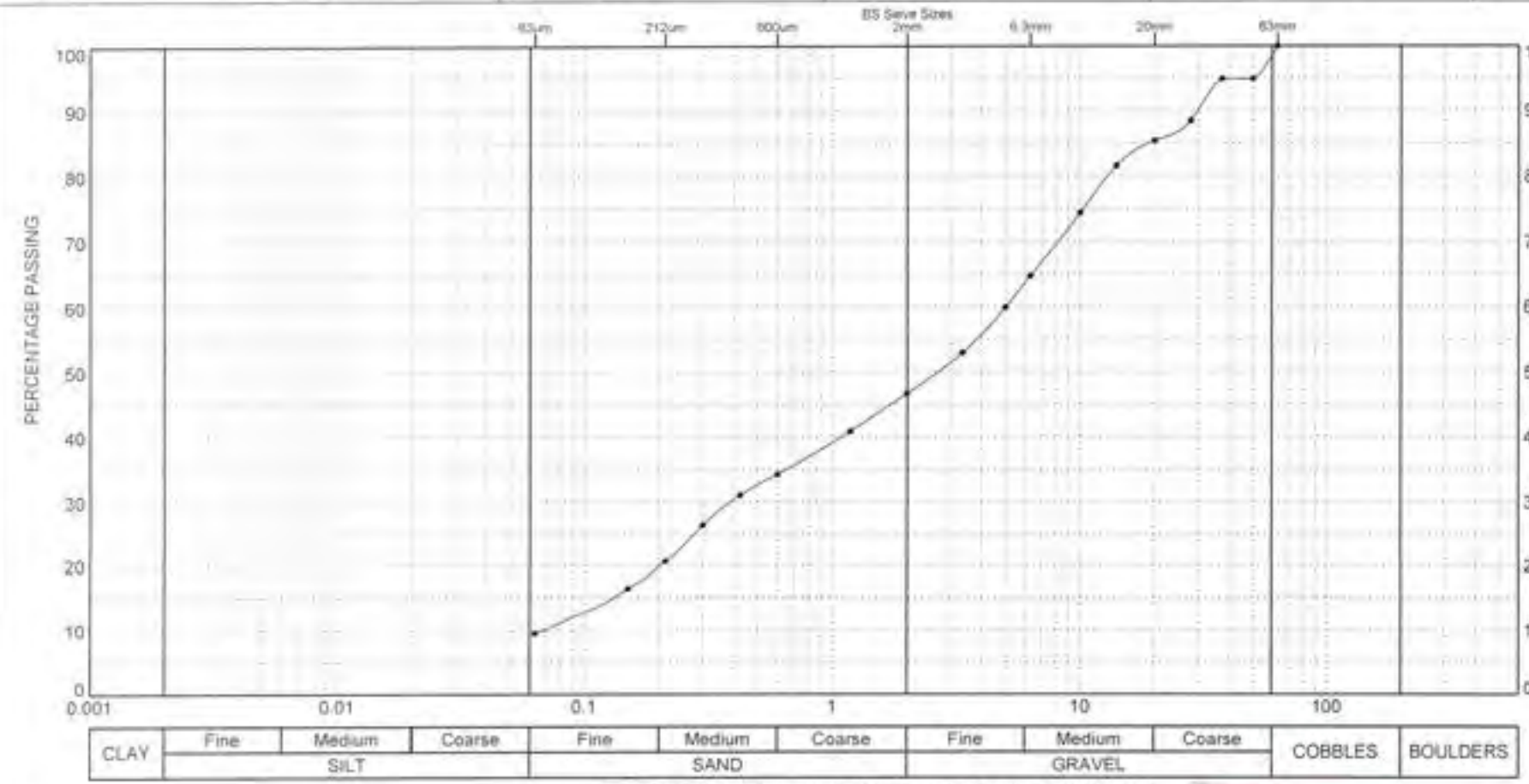
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Wella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4720 Fax: 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eurum Wharf, Blackburn, BB1 1BL - Tel: 01772 735 900 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :-	Depth (m) :-	Sample Type & No :-	Specific Depth (m) :-	Date Tested :-
PRAIRIE_AUK_TP139B	**0.20**	**B2**	**0.20**	**14/10/2020**



Sieve Size (mm)	Passing (%)
63	100.0
50	94.9
37.5	94.9
28	88.5
20	85.4
14	81.6
10	74.4
6.3	64.8
5	60.0
3.35	53.0
2	46.7
1.18	40.9
0.6	34.3
0.425	31.1
0.3	26.5
0.212	20.7
0.15	16.3
0.063	9.6

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
23/10/2020	PSD/4251/PRAIRIE_AUK_TP139B/B2/0.20	MSelv	M SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

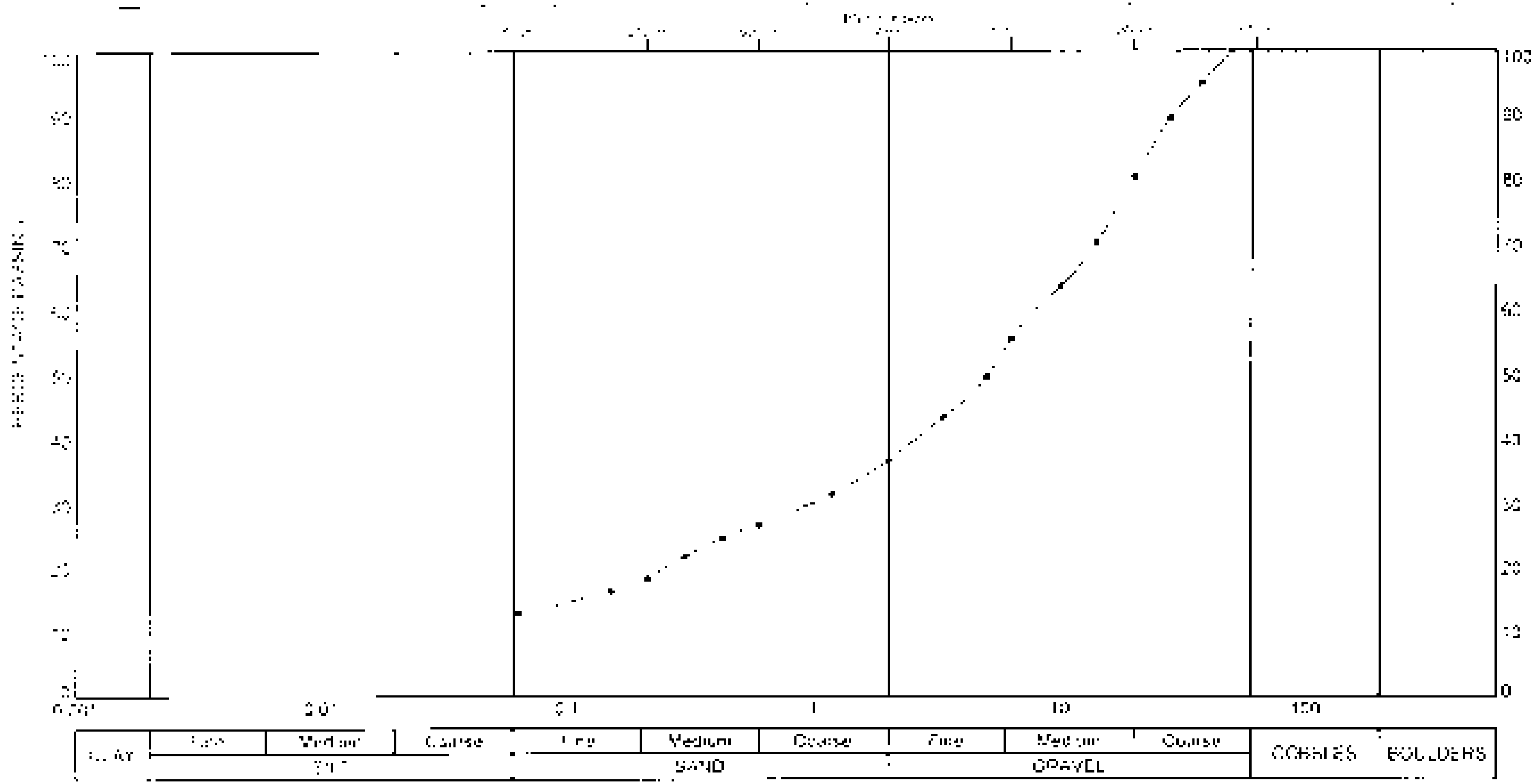
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUX_TP145 | Depth (m) : 1.00 | Sample Type & No : B3 | Specific Depth (m) : 1.00 | Date Tested : 29/09/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	95.0
28	89.9
20	81.9
14	70.4
10	63.7
6.3	55.6
5	49.7
3.35	43.6
2	39.0
1.18	31.7
0.6	26.9
0.425	24.9
0.3	22.0
0.212	19.4
0.15	16.4
0.063	13.0

For description of sample please refer to Particle Size sample Description Sheet

Date of Issue : 20/10/2020

Certificate No : PSD4251 PRAIRIE_AUX_TP145 B3 1.00 Signed *(signature)* Name

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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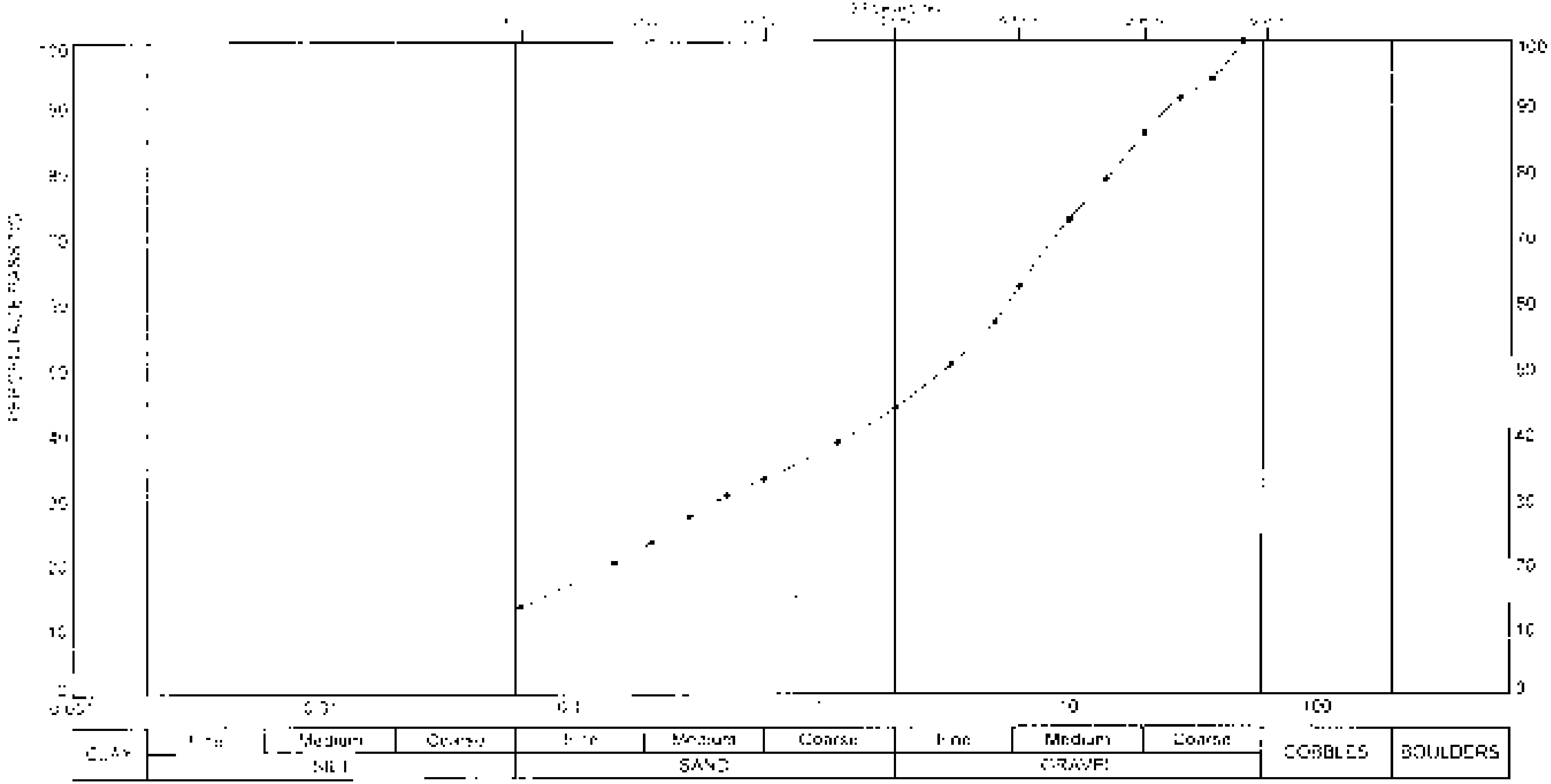
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP146C   Depth (m) : 1.30   Sample Type & No : B6   Specific Depth (m) : 1.30   Date Tested : 02/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	94.2
28	91.3
20	85.9
14	79.0
10	73.0
6.3	67.7
5	57.2
3.35	50.8
2	44.2
1.18	39.2
0.6	33.4
0.425	30.5
0.3	27.8
0.212	23.9
0.15	20.2
0.063	13.6

For description of sample refer to the Laboratory Sample Description Sheet

Date of Issue : 20/10/2020

Certificate No : PSD4251 PRAIRIE_AUK_TP146C B6 1.30   Signed

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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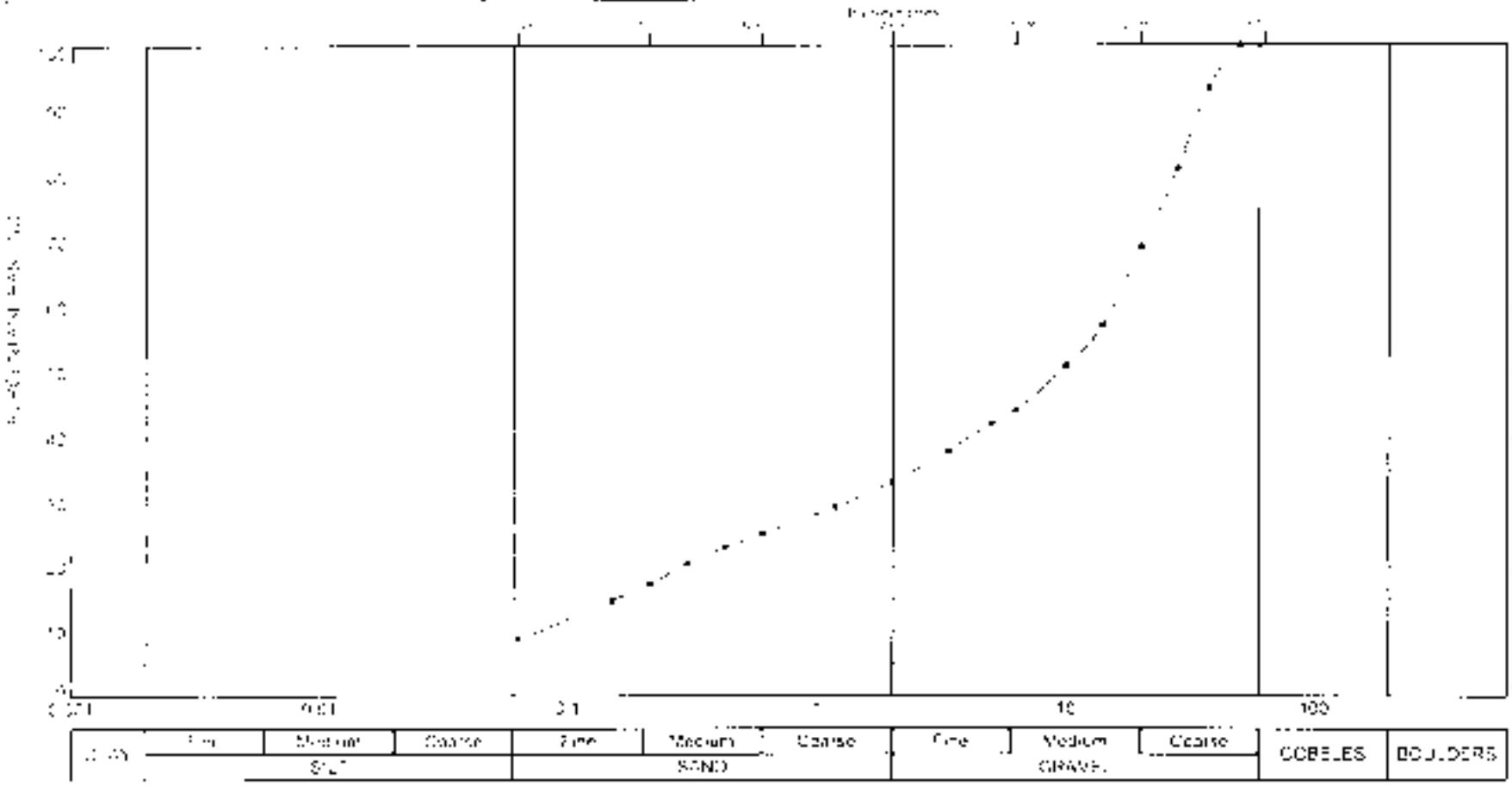
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

DS#127 - Part 2 - Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Location / Hole No: PRA RIE_AUK_TP140 | Depth (m): 1.00 | Sample Type & No: - B2 | Sub-Sample Depth (m): 1.00 | Date Tested: - 19/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	93.6
28	91.1
20	89.2
14	87.8
10	87.1
6.3	44.3
5	42.1
3.35	38.0
2	33.1
1.18	29.6
0.6	25.4
0.425	23.3
0.3	20.6
0.212	17.4
0.15	14.2
0.063	9.6

Date of Issue: 21.10.2020 | Our Code No: PSD 425\PRA RIE_AUK_TP140 B2\1.00 | Signed: | Name: | Page 1 of 1

Client: Scott Technical Personnel Corporation | Contract Title: Prairie Site Ground Investigation Works | AGS Contract No: 425

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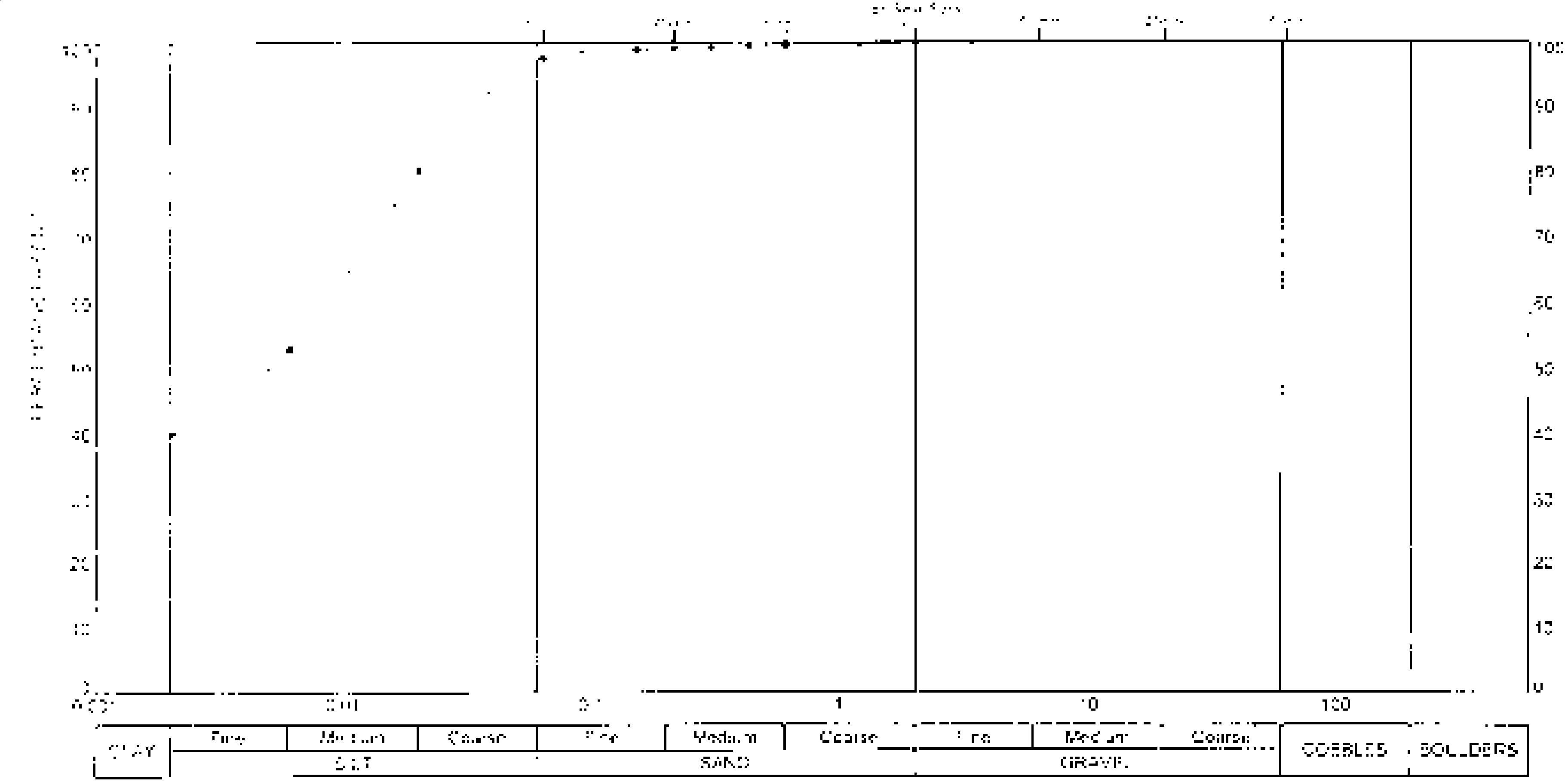
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP149 | Depth (m) : 2.20 | Sample Type & No : B5 | Specific Depth (m) : 2.20 | Date Testing : 15/10/2020



Sieve Size (mm)	Passing (%)
2.36	100.0
2	99.9
1.18	99.7
0.6	99.5
0.425	99.4
0.3	99.2
0.212	99.0
0.15	98.8
0.063	97.5
0.02	80.0
0.006	53.0
0.002	39.9

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : [illegible]/10/2020

Certificate No : PSD4251 PRAIRIE_AUK_TP149 B5 2.20 Signed : msere Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

UKAS 1307

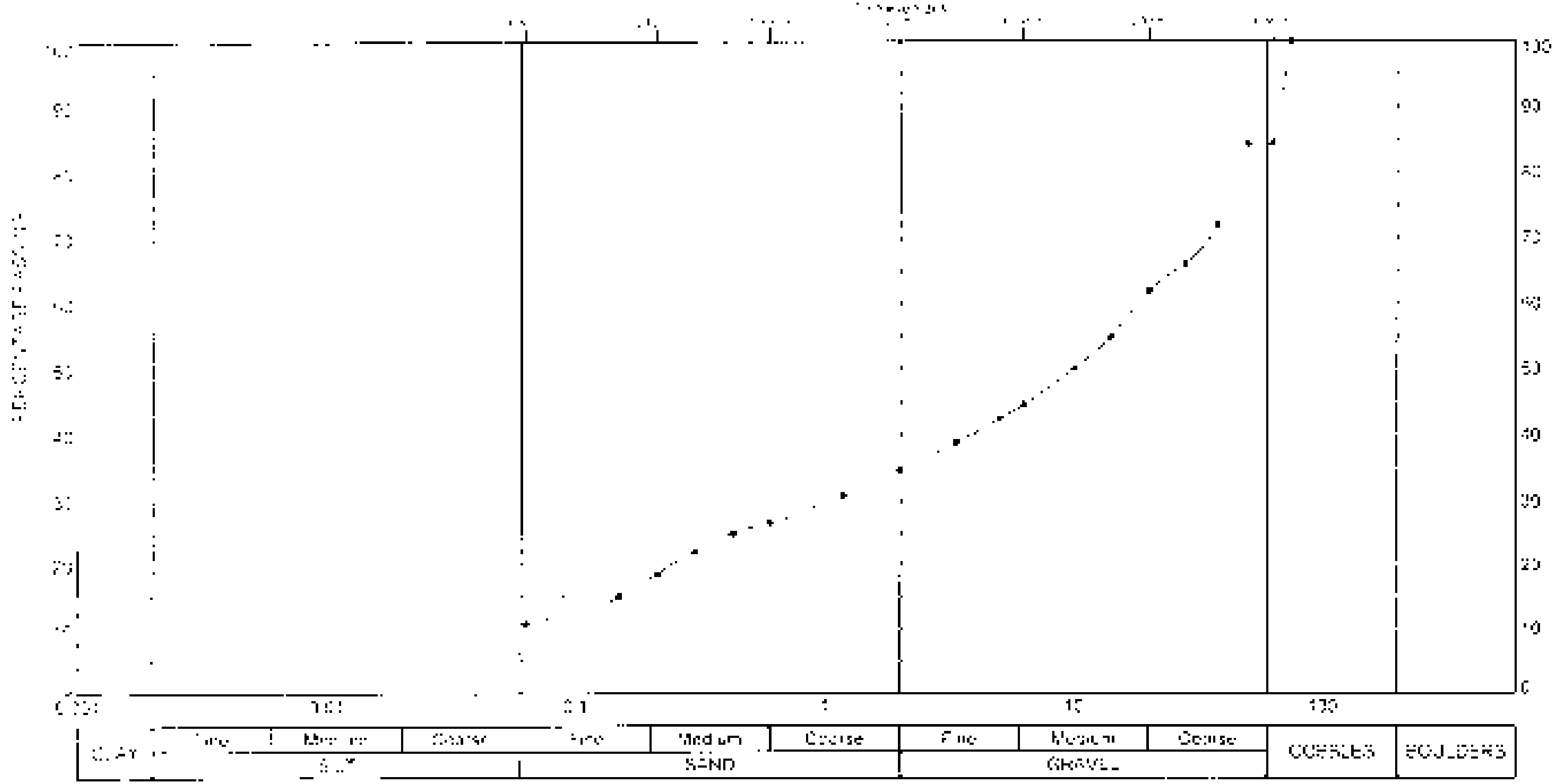
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No: PRAIRIE AUK TP150 | Depth (m): 0.60 | Sample Type & No.: B2 | Sample Depth (m): 0.60 | Date Tested: 15/10/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	94.4
50	84.4
37.5	71.0
28	65.1
20	61.1
14	54.9
10	53.1
6.3	44.6
5	47.4
3.35	38.6
2	34.7
1.18	32.3
0.6	26.[illegible]
0.425	25.0
0.3	22.1
0.212	19.5
0.15	15.0
0.063	13.6

Date of Issue: 23/10/2020 | Certificate No: PRAIRIE AUK TP150 B2 0.60 | Signed: | Name: | Page 1 of 1

Client: South Tees Development Corporation | Contract Title: Prairie Site Ground Investigation Works | AEG Contract No: 4251

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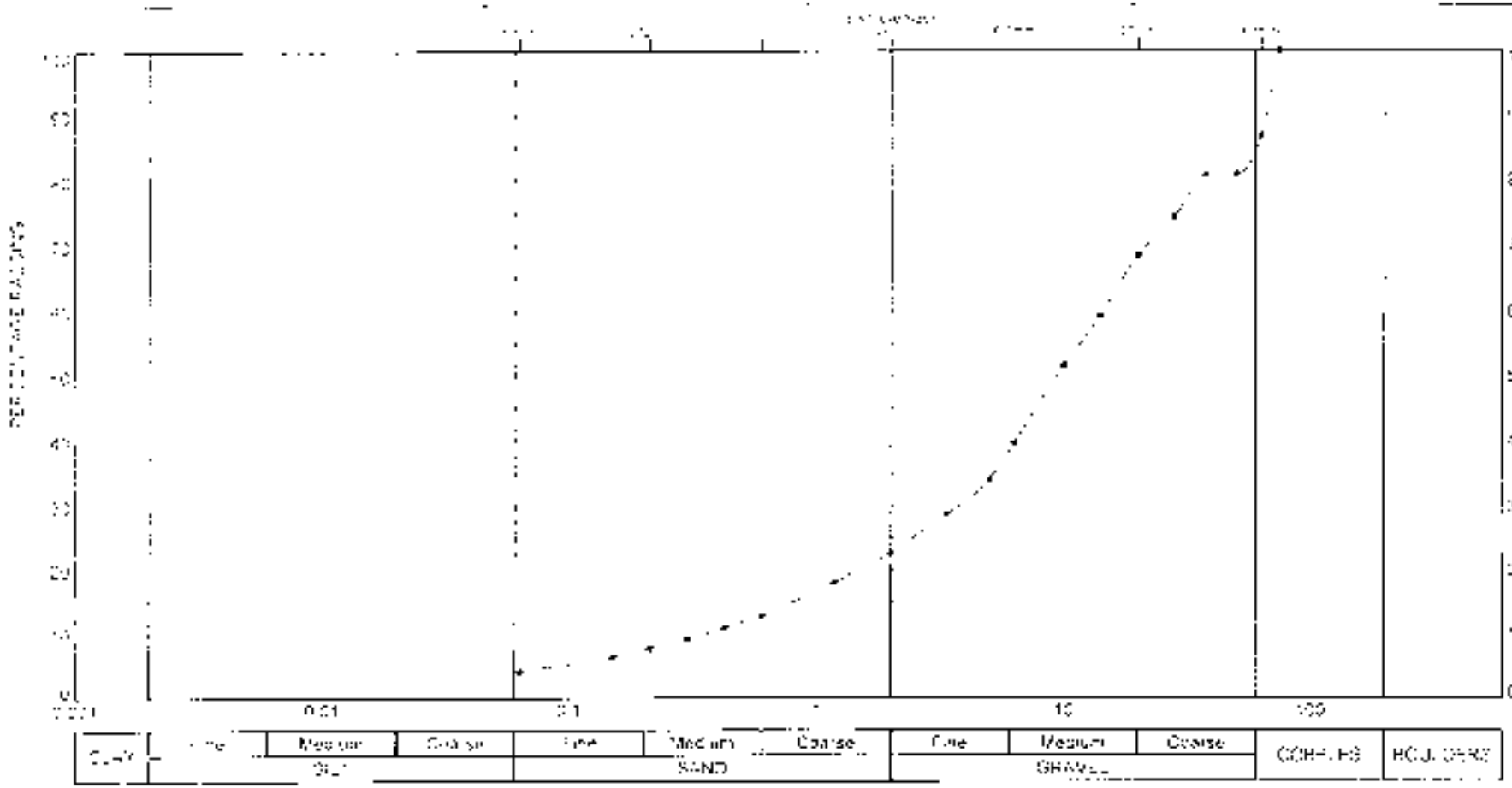
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 - Clause 9.2 & 9.4 - 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP155 | Depth (m) : 0.50 | Sample Type & No : B2 | Specific Depth (m) : 0.50 | Date Tested : 19/10/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	86.4
50	80.9
37.5	80.9
28	74.4
20	69.6
14	66.3
10	61.7
6.3	59.1
5	54.1
3.35	48.6
2	42.9
1.18	38.0
0.6	32.8
0.425	31.0
0.3	29.2
0.212	27.7
0.15	26.5
0.063	24.1

Date of Issue: 23/10/2020 | Cert Code No : PSD 4251/PRAIRIE_AUK_TP155 B2 0.50 | Signed : | Name :

Client : Perth Tees Development Corporation

Contract Title : Plant Site Ground Investigation Works

AEG Contract No : 4251

Page 1 of 1

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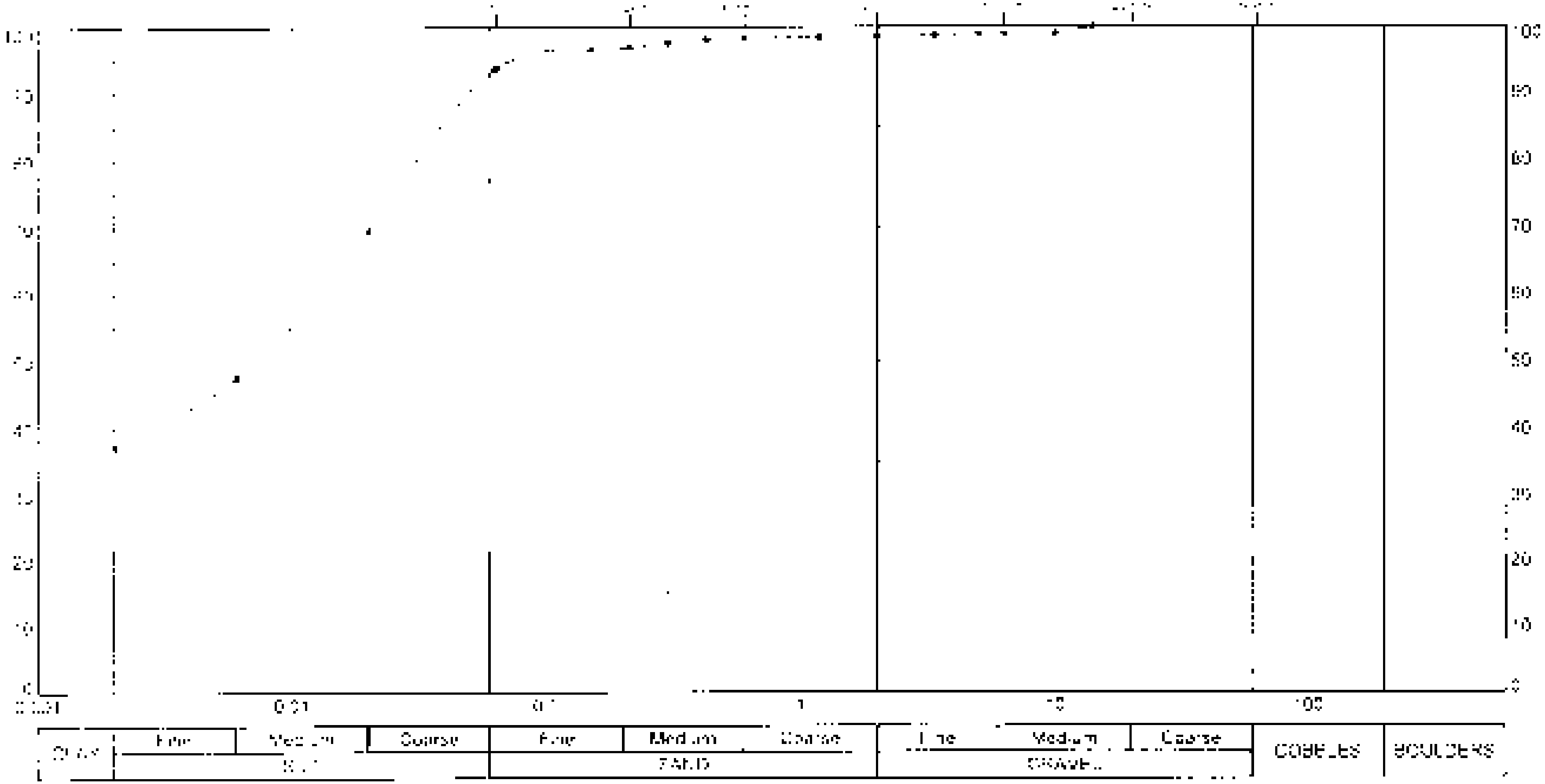
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 Clause 9.2 & 9.4 : 1990

Exploratory Hole No. : PRAIRIE AUK_TP155 | Depth (m) : 1.60 | Sample Type & No. : B5 | Specific Depth (m) : 1.60 | Date Tested 14/10/2020



Sieve Size (mm)	Passing (%)
14	100.0
10	99.9
6.3	99.9
5	99.9
3.35	99.7
2	99.5
1.18	99.4
0.6	98.3
0.425	98.0
0.3	97.5
0.212	96.5
0.15	95.6
0.063	93.7
0.02	79.5
0.006	47.8
0.002	37.0

Date of Issue: 23.10.2020

Cert Code No: PSD 4251 PRAIRIE AUK_TP155 B5 1.60

Signed:

Name:

Page 1 of 1

Client: Caribbean Development Corporation

Contract Title: Prairie Site Ground Investigation Works

AEG Contract No: 4251

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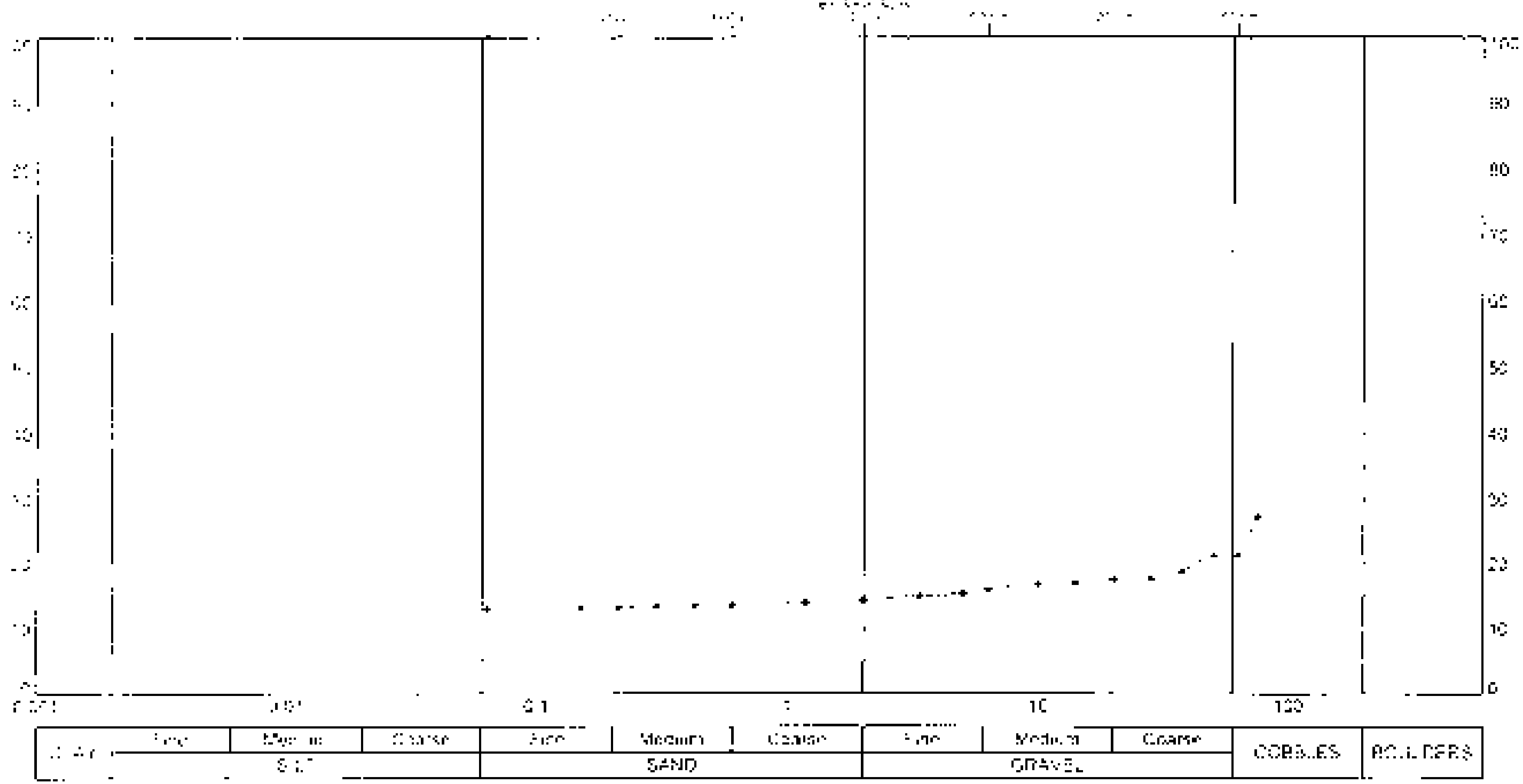
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No. - PRAIRIE_AUK_TP156A | Depth (m) - 0.70 | Sample Type & No - B4 | Specific Depth (m) - 0.70 | Date Tested - 15/10/2020



Sieve Size (mm)	Passing (%)
75	27.3
63	21.3
50	21.3
37.5	18.8
28	17.7
20	17.8
14	17.3
10	16.3
6.3	15.9
5	15.4
3.35	14.9
2	14.4
1.18	14.0
0.6	13.6
0.425	13.5
0.3	13.4
0.212	13.2
0.15	13.1
0.063	13.0

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue - 20/10/2020 | Certificate No - PSD 4251 PRAIRIE_AUK_TP156A B4 0.70 | Signed - [signature] | Name - | Page 1 of 1

Client - South Tees Development Corporation | Contract Title - Prairie Site Ground Investigation Works | AEG Contract No - 4251

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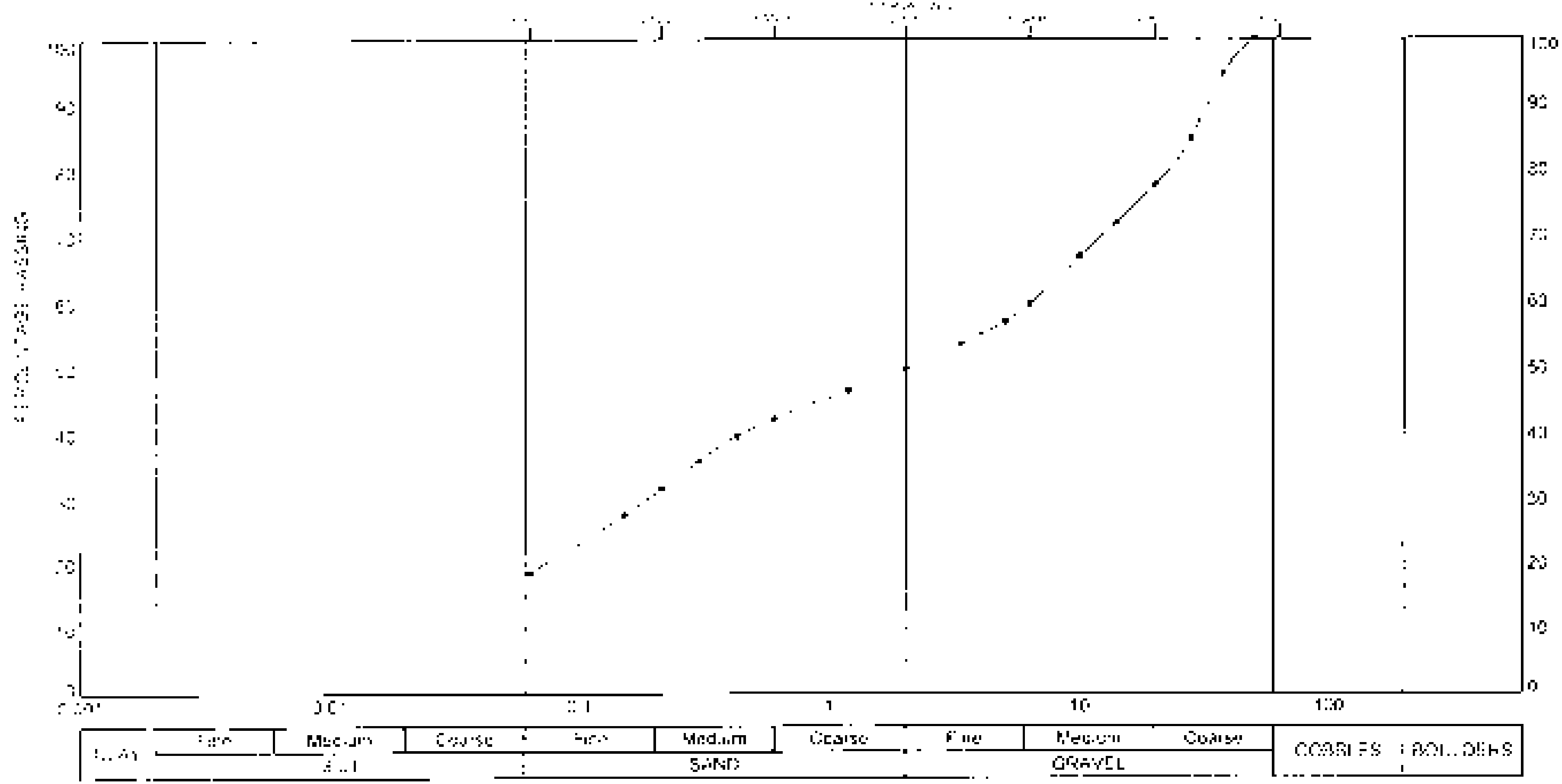
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP162 Depth (m) : 0.90 Sample Type & No : D2 Specific Depth (m) : 0.90 Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	94.5
28	84.8
20	77.7
14	72.6
10	66.9
6.3	59.7
5	57.0
3.35	53.7
2	48.9
1.18	45.6
0.6	42.3
0.425	39.7
0.3	36.0
0.212	31.7
0.15	27.7
0.063	18.6

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 20.10.2020
Certificate No : PS00455 PRAIRIE_AUK_TP162-E2 0.90
Signed : Name :
Page 1 of 1
Client : South Tees Development Corporation
Contract Title : Prairie Site Ground Investigation Works
AEG Contract No : 4251

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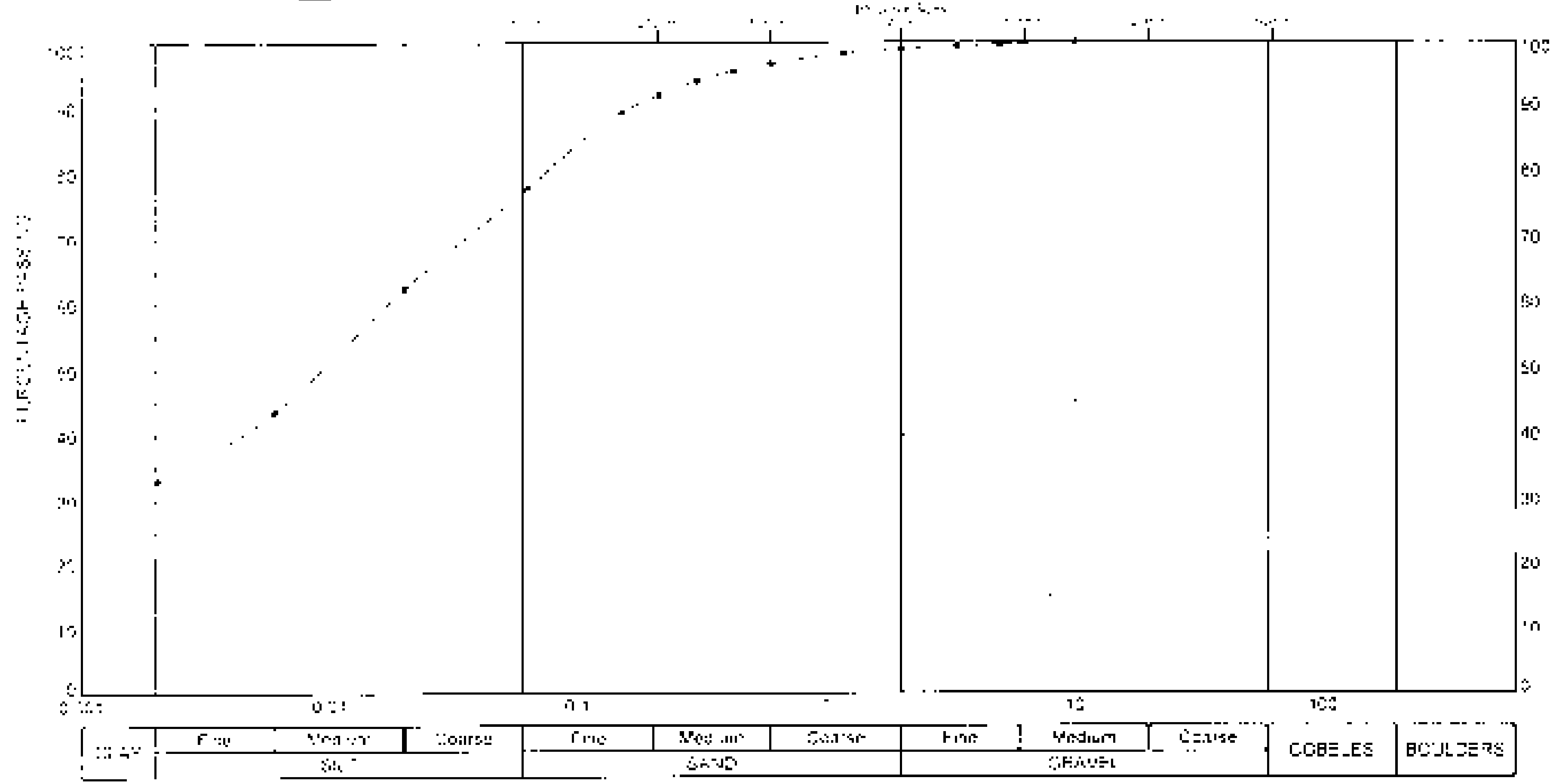
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 - Part 2 - Clause 9.2 & 9.4 : 1990

Exploratory Hole No. - PRAIRIE_AUK_TP162   Depth (m) - 2.50   Sample Type & No. - B6   Specific Depth (m) - 2.50   Date Tested 29/09/2020



Sieve Size (mm)	Passing (%)
10	100.0
6.3	99.9
5	99.6
3.35	99.3
2	98.9
1.18	98.2
0.6	96.0
0.425	95.5
0.3	94.0
0.212	91.8
0.15	89.2
0.063	77.8
0.02	62.4
0.006	43.5
0.002	33.5

Full description of sample given separately in the Laboratory Sample Description sheet

Date of Issue - [illegible]   Certificate No. - PSD 4251-PRAIRIE_AUK_TP162 B6 2.50   Signed - msore   Name -   Page 1 of 1

Client - [illegible]   Contract Title - [illegible] Site Ground Investigation Works   AEG Contract No. 4251

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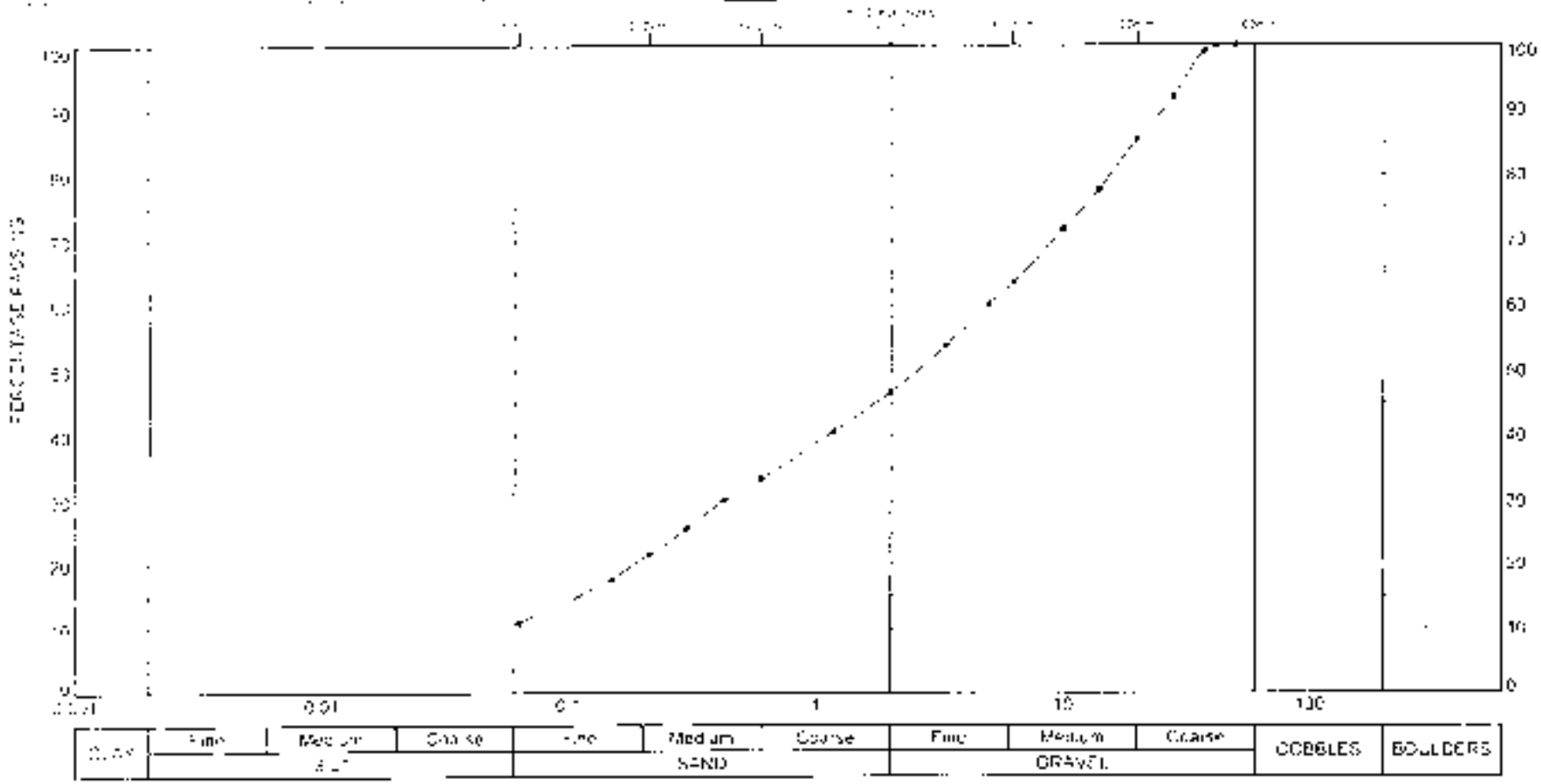
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_BP103 | Depth (m) : 0.80 | Sample Type & No : B2 | Specific Depth (m) : 0.80 | Date Tested : 05/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	99.1
28	92.1
20	85.6
14	77.8
10	71.7
6.3	63.6
5	60.2
3.35	52.9
2	45.7
1.18	40.7
0.6	33.4
0.425	30.1
0.3	25.6
0.212	21.6
0.15	17.8
0.063	12.9

For description of sample please refer to the Exploratory Hole Description Sheet

Date of Issue : 20/10/2020

Certificate No : HSDA25\PRAIRIE_AUK_BP103\B2 0.80

Signature :

Name :

Page 1 of 1

Client :

Contract Title :

Prairie Site Ground Investigation Works

AEG Contract No : 4251

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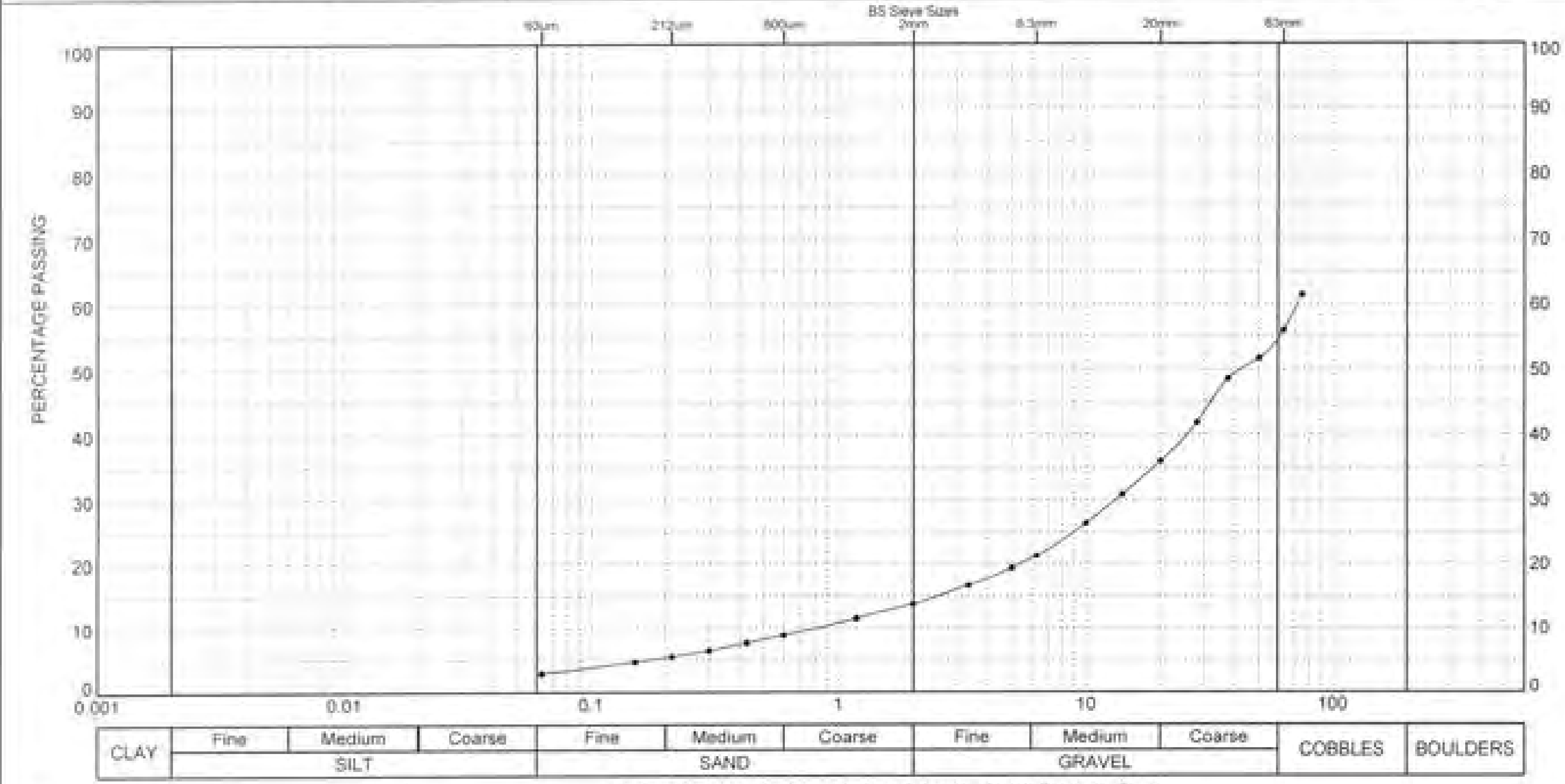
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :- PRAIRIE_AUK_TP165	Depth (m) :- 1.80	Sample Type & No :- B5	Specific Depth (m) :- 1.80	Date Tested :- 01/10/2020



Sieve Size (mm)	Passing (%)
75	61.5
63	56.0
50	51.7
37.5	48.6
28	41.9
20	36.0
14	30.9
10	26.5
6.3	21.3
5	19.3
3.35	16.6
2	13.8
1.18	11.5
0.6	8.9
0.425	7.7
0.3	6.6
0.212	5.6
0.15	4.7
0.063	3.0

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :- 20/10/2020	Certificate No :- PSD/4251/PRAIRIE_AUK_TP165/B5/1.80	Signed :-	Name :-	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works			AEG Contract No :- 4251

UKAS TESTING 1367

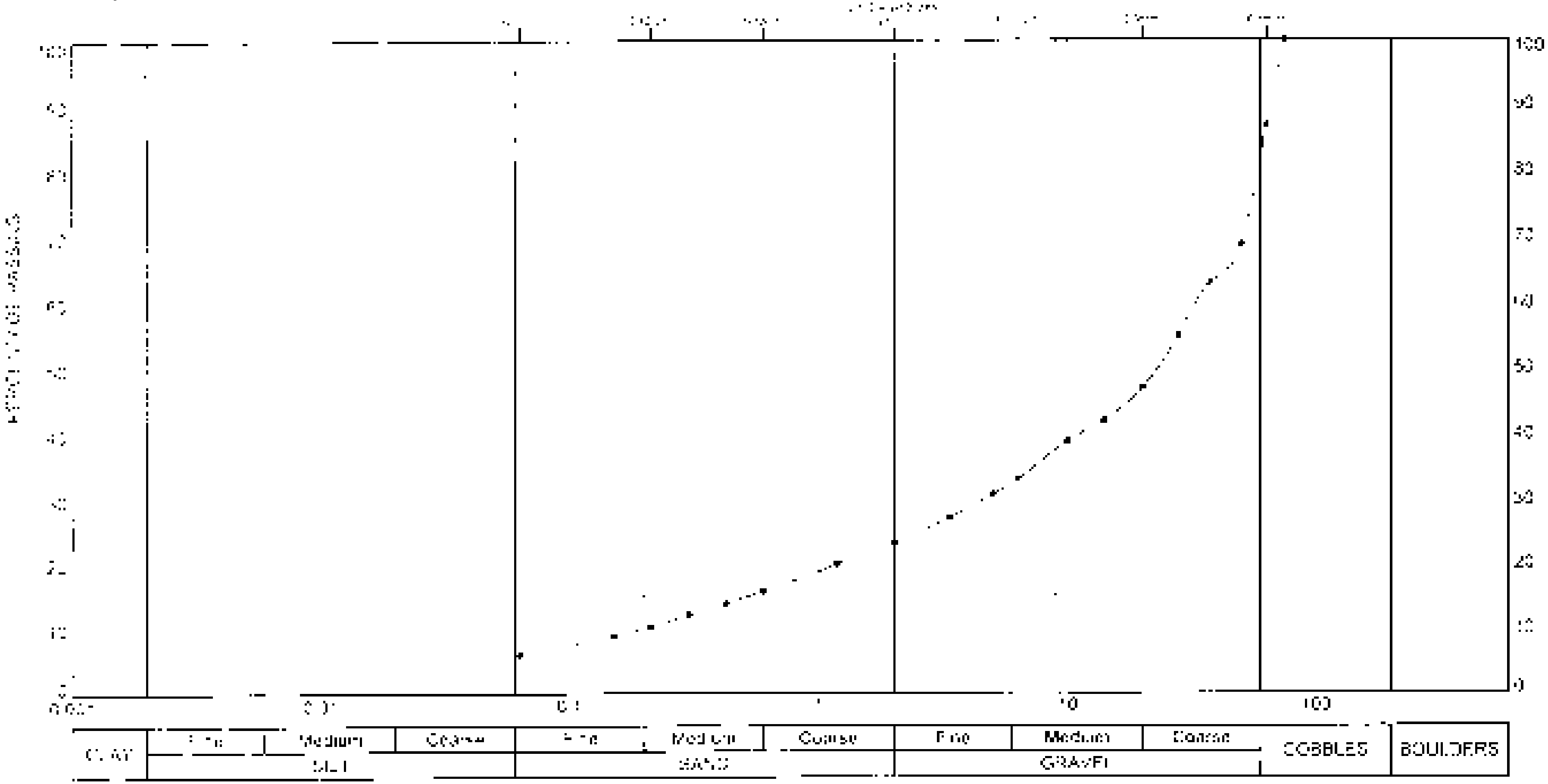
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP165 | Depth (m) : 2.80 | Sample Type & No : B7 | Specific Depth (m) : 2.80 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	96.9
50	88.9
37.5	83.0
28	68.0
20	47.0
14	43.0
10	38.9
6.3	33.1
5	30.8
3.35	27.2
2	23.3
1.18	19.8
0.6	15.7
0.425	13.9
0.3	12.0
0.212	10.0
0.15	8.8
0.063	6.9

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 05/10/2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP165 B7 2.80

Signed : msore

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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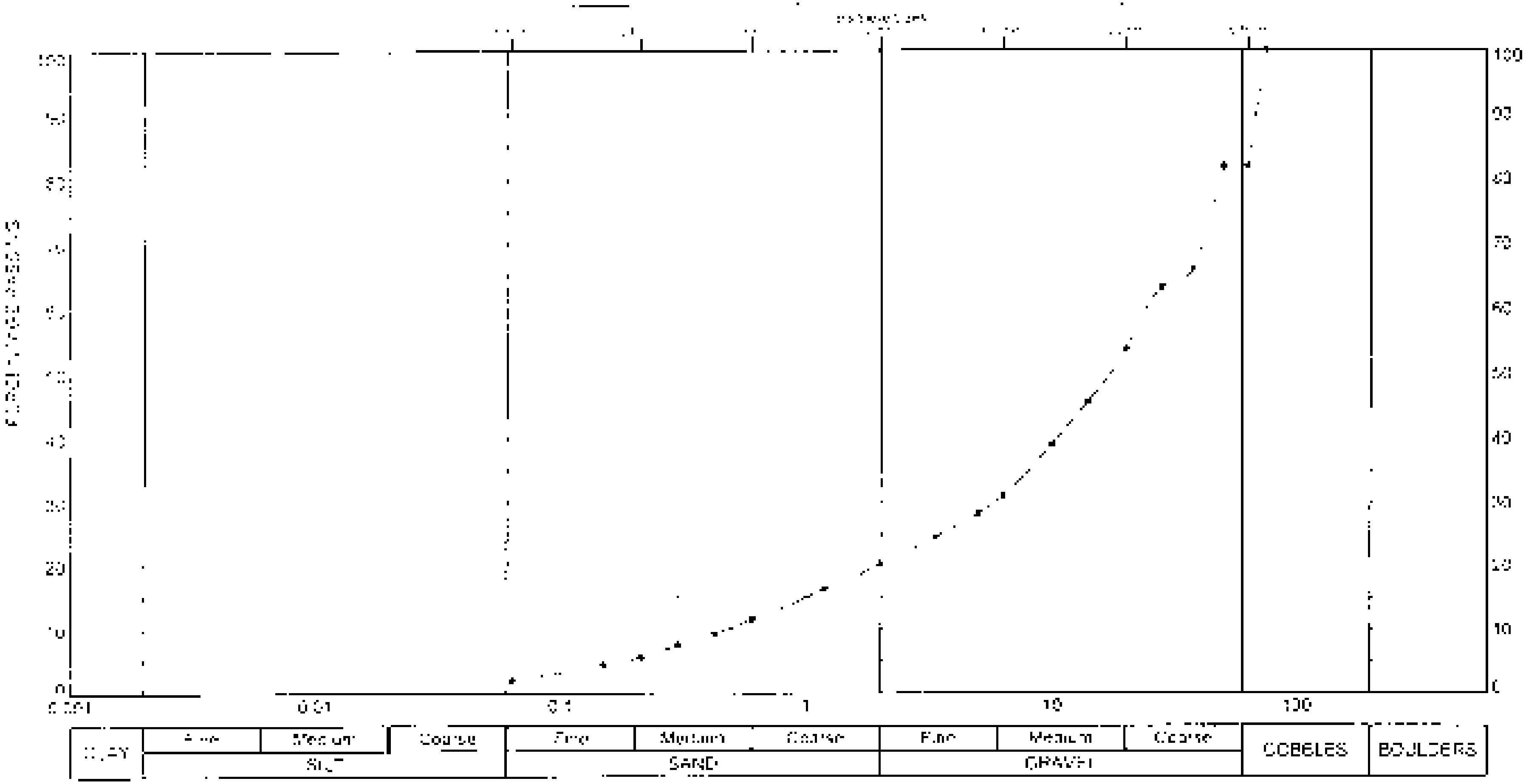
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP167 | Depth (m) : 1.80 | Sample Type & No : B4 | Specific Depth (m) : 1.80 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
75	100.0
63	82.0
50	82.0
37.5	66.1
28	63.3
20	53.9
14	45.7
10	39.1
6.3	31.2
5	28.3
3.35	26.7
2	23.1
1.18	19.1
0.6	11.5
0.425	9.4
0.3	7.5
0.212	5.7
0.15	4.4
0.063	2.1

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 21.10.2020 | Certificate No : PSD4251-PRAIRIE_AUK_TP167 B4-1.80 | Signed : | Name : | Page 1 of 1

Client : South Tees Development Corporation | Contract Title : Prairie Site Ground Investigation Works | AEG Contract No : 4251

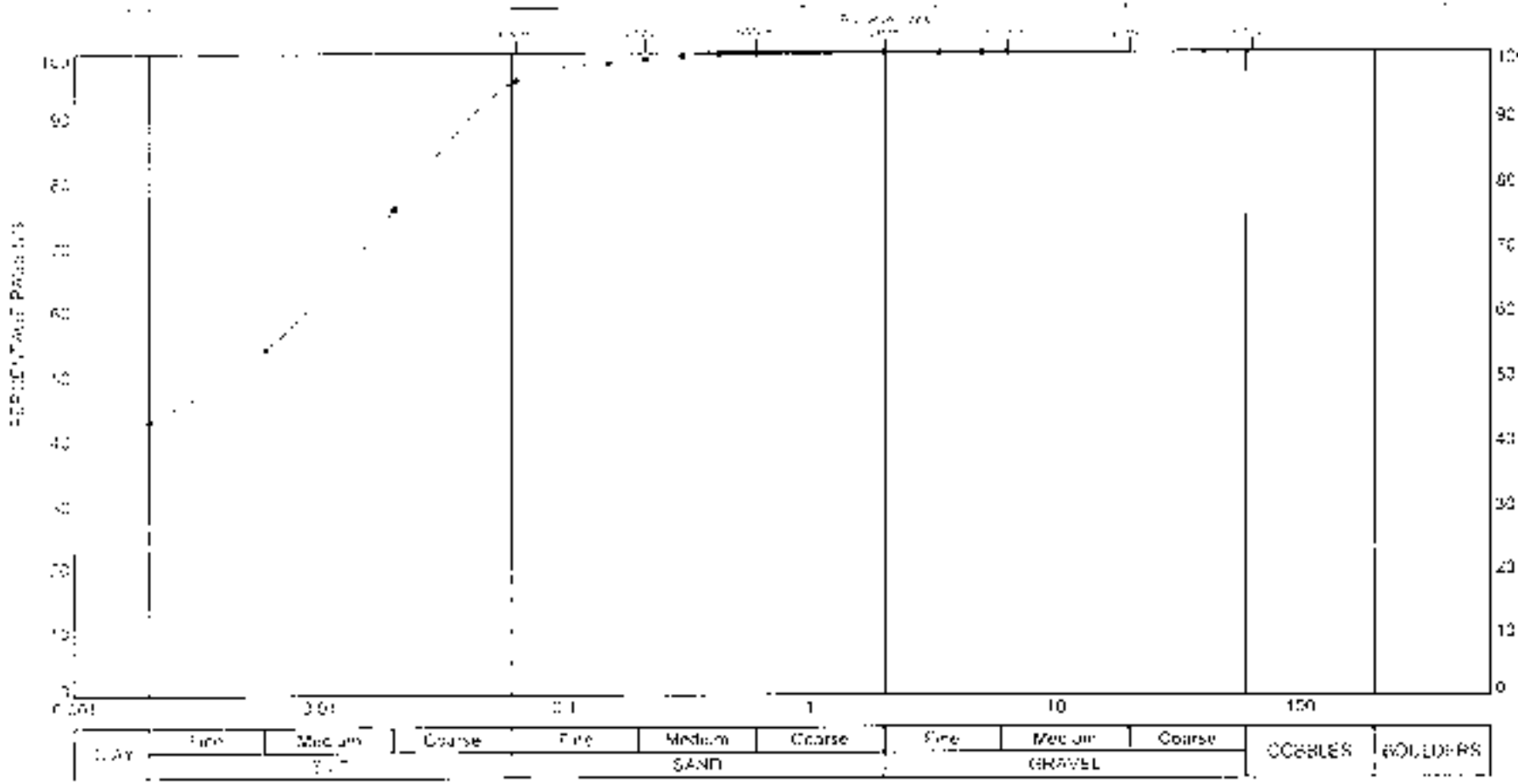
UKAS 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Location / Hole No. - PRAIRIE AUK_TP168 | Depth (m) - 1.60 | Sample Type & No. - B7 | Specific Depth (m) - 1.60 | Date Tested - 30/09/2020



Sieve Size (mm)	Passing (%)
6.3	100.0
5	99.6
3.35	99.5
2	99.5
1.18	99.5
0.6	99.0
0.425	99.1
0.3	99.4
0.212	98.3
0.15	98.3
0.063	95.2
0.02	75.8
0.006	54.1
0.002	42.9

For description of soil & rock types refer to the laboratory sample description sheet

Date of Issue: 30/10/2020

Certificate No. - PS(2020)1PRAIRIE_AUK_TP168 B7 1.60 Signed - MSono Name -

Page 1 of 1

Client: South Tees Development Corporation

Contract Title: Proposed Site Ground Investigation Works

AEG Contract No: 4251

UKAS 1367

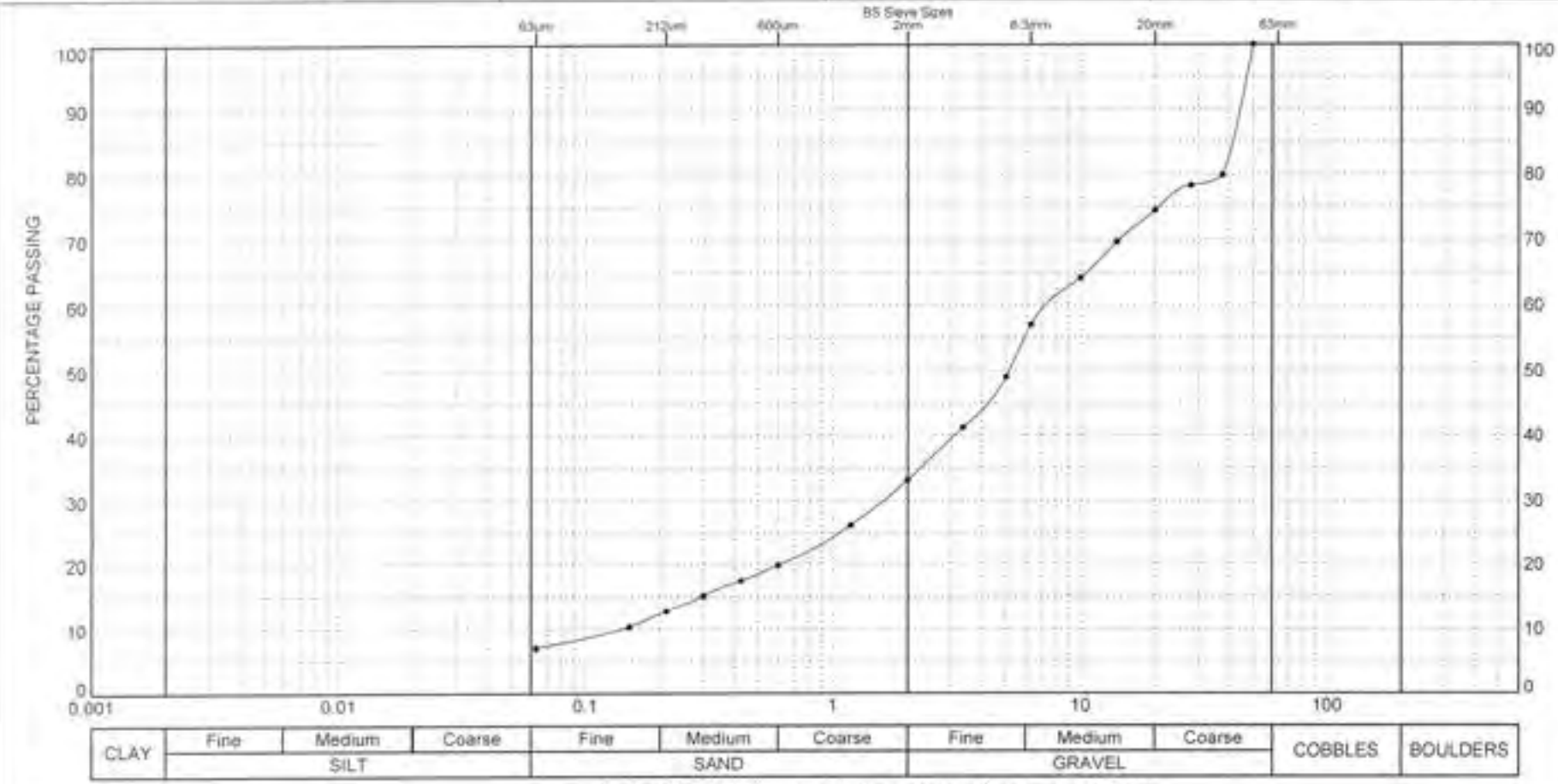
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 20 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4100 Fax: 0191 387 4101
Regional Office: Unit 20, Blackhorse Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 100 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :- **PRAIRIE_AUK_TP169**	Depth (m) :- **0.80**	Sample Type & No :- **B2**	Specific Depth (m) :- **0.80**	Date Tested :- **29/09/2020**



Sieve Size (mm)	Passing (%)
50	100.0
37.5	79.9
28	78.3
20	74.5
14	69.7
10	64.2
6.3	57.1
5	49.1
3.35	41.3
2	33.2
1.18	26.3
0.6	19.8
0.425	17.5
0.3	15.1
0.212	12.7
0.15	10.4
0.063	7.1

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP169/B2/0.80		SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

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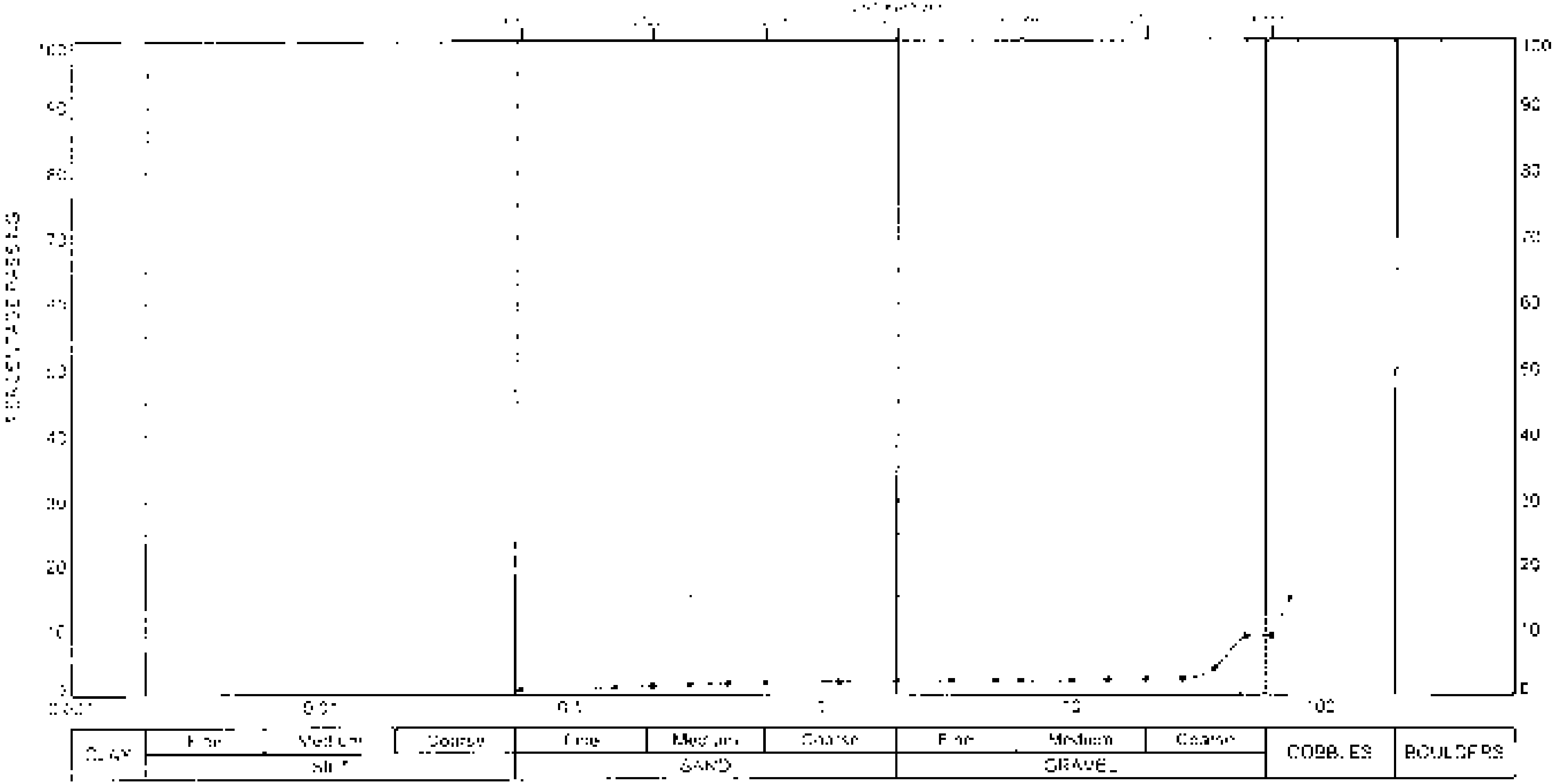
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE AUK TP172 | Depth (m) : 0.60 | Sample Type & No : B2 | Specific Depth (m) : 0.60 | Date Tested : 01/10/2020



Sieve Size (mm)	Passing (%)
75	14.9
63	9.0
50	5.0
37.5	4.1
28	3.4
20	2.5
14	2.3
10	2.2
6.3	2.2
5	2.2
3.35	2.2
2	2.1
1.18	2.0
0.6	1.9
0.425	1.8
0.3	1.6
0.212	1.4
0.15	1.1
0.063	0.8

For description of the sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 23/10/2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP172_B2 0.60 Signed : msae Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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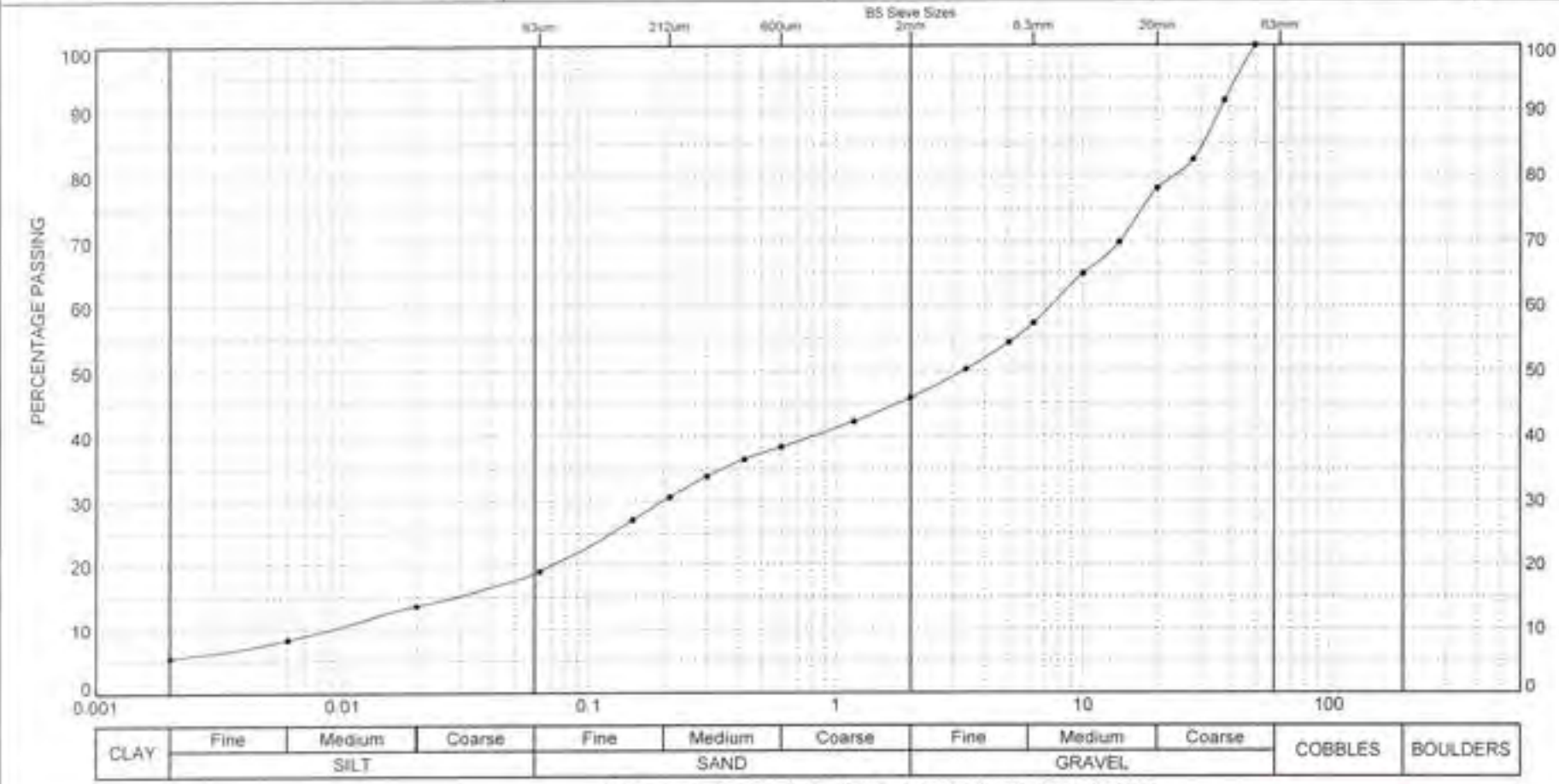
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 23 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_TP173**	Depth (m) :- **0.80**	Sample Type & No :- **B2**	Specific Depth (m) :- **0.80**	Date Tested :- **30/09/2020**



Sieve Size (mm)	Passing (%)
50	100.0
37.5	91.5
28	82.5
20	78.1
14	69.8
10	65.0
6.3	57.4
5	54.4
3.35	50.3
2	45.9
1.18	42.3
0.6	38.4
0.425	36.5
0.3	33.9
0.212	30.7
0.15	27.2
0.063	19.0
0.02	13.6
0.006	8.3
0.002	5.5

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP173/B2/0.80	MSone	SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

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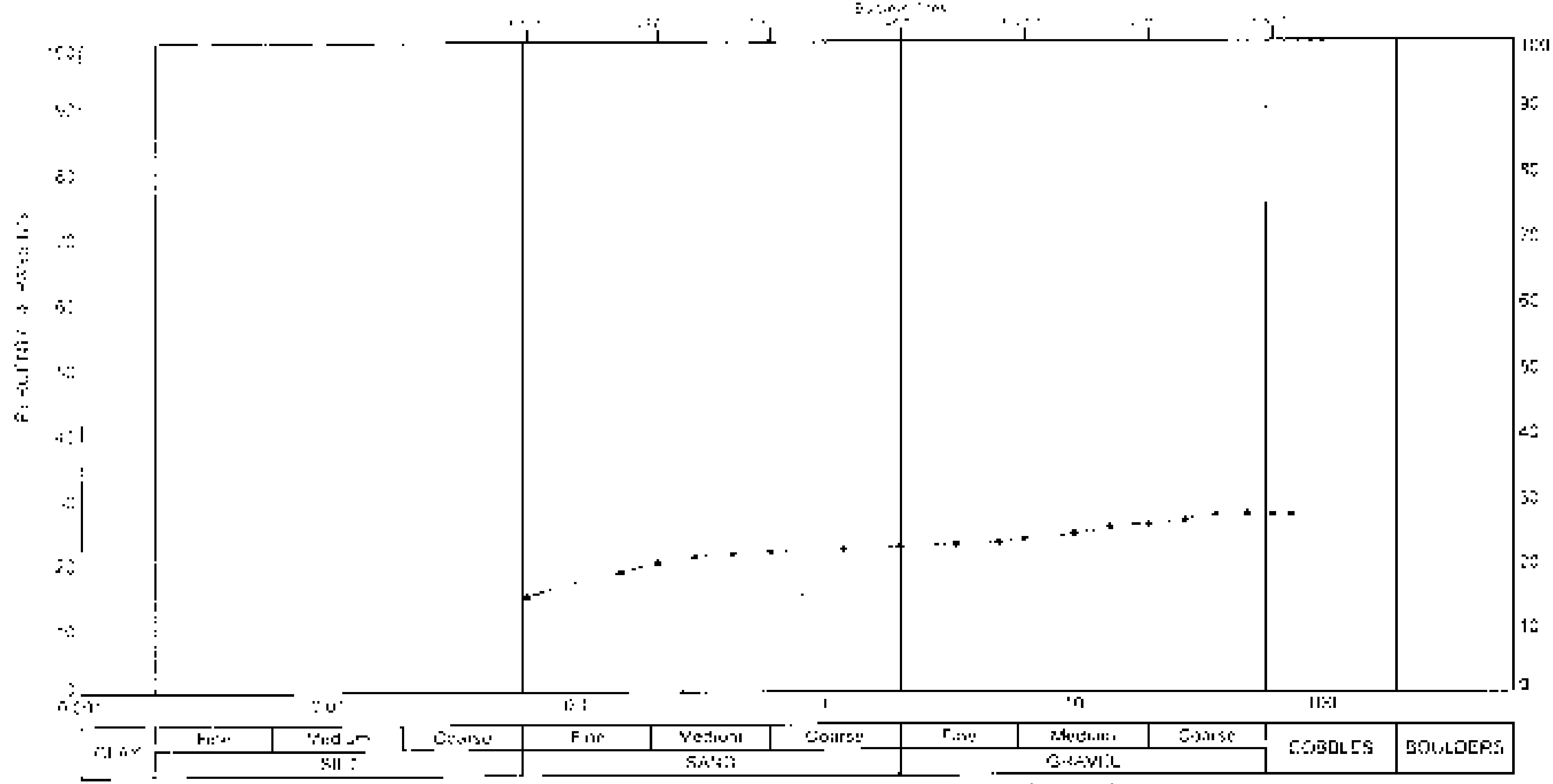
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Laboratory Hole No. : PRAIRIL_AUK_TP175 | Depth (m) : 0.60 | Sample Type & No. : B2 | Specific Depth (m) : 0.60 | Date Tested : 01/10/2020



Sieve Size (mm)	Passing (%)
75	27.6
63	27.6
50	27.6
37.5	27.6
28	26.7
20	26.1
14	25.7
10	24.8
6.3	23.8
5	23.4
3.35	23.1
2	22.7
1.18	22.3
0.6	21.9
0.425	21.5
0.3	20.8
0.212	19.5
0.15	18.8
0.063	14.5

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 07/10/2020

Certificate No : PSD 4251PRAIRIE_AUK_TP175B2-0.60

Signed : MSee

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

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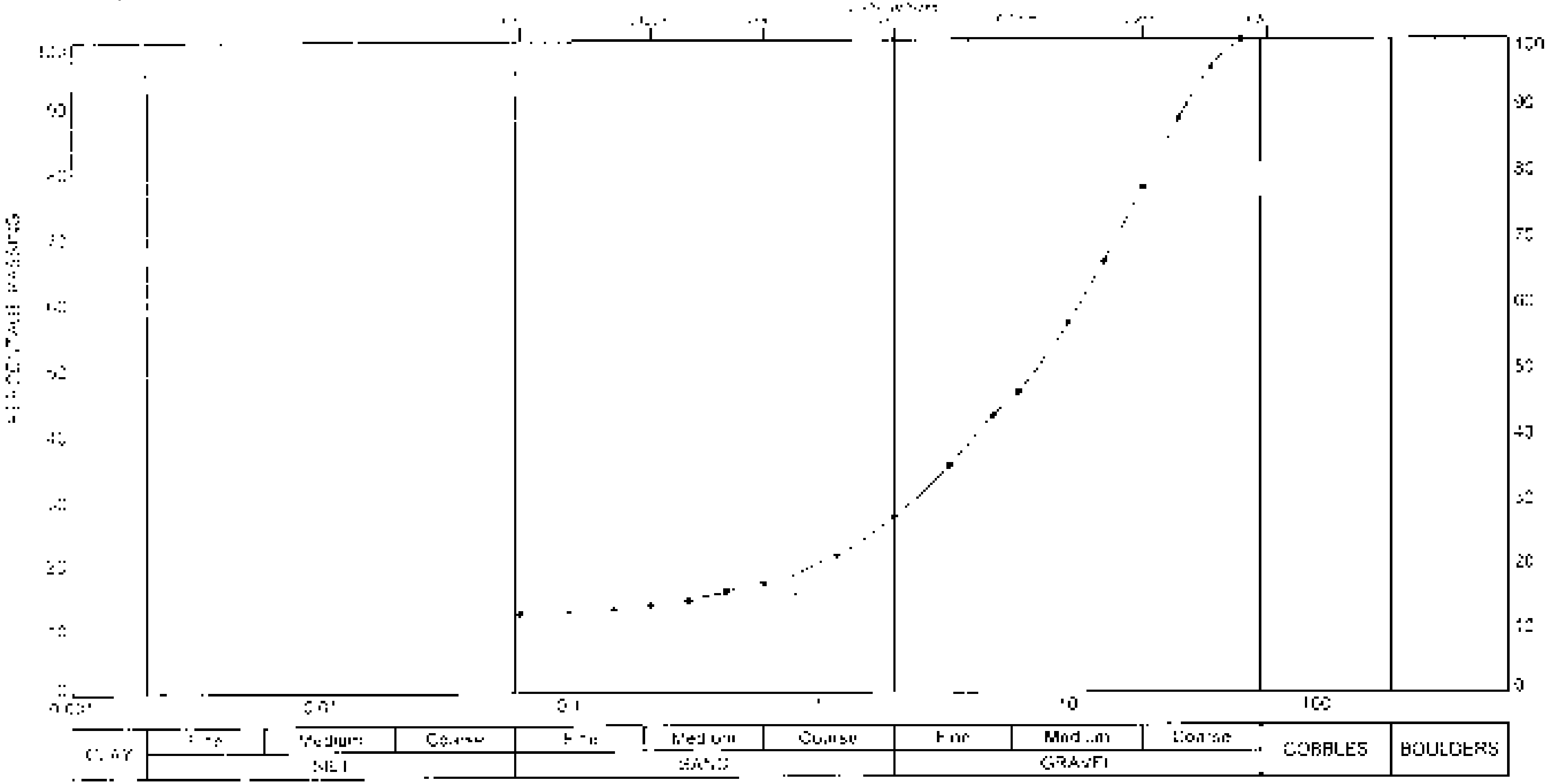
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP176 | Depth (m) : 0.50 | Sample Type & No : B2 | Specific Depth (m) : 0.50 | Date Tested : 29/09/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	95.5
28	87.5
20	77.4
14	60.0
10	50.8
6.3	46.2
5	42.7
3.35	35.7
2	27.0
1.18	21.2
0.6	16.8
0.425	15.5
0.3	14.3
0.212	13.5
0.15	12.8
0.063	12.1

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 20.10.2020

Certificate No : PSD 4251-PRAIRIE_AUK_TP176/B2/0.50

Signed : [signature] Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

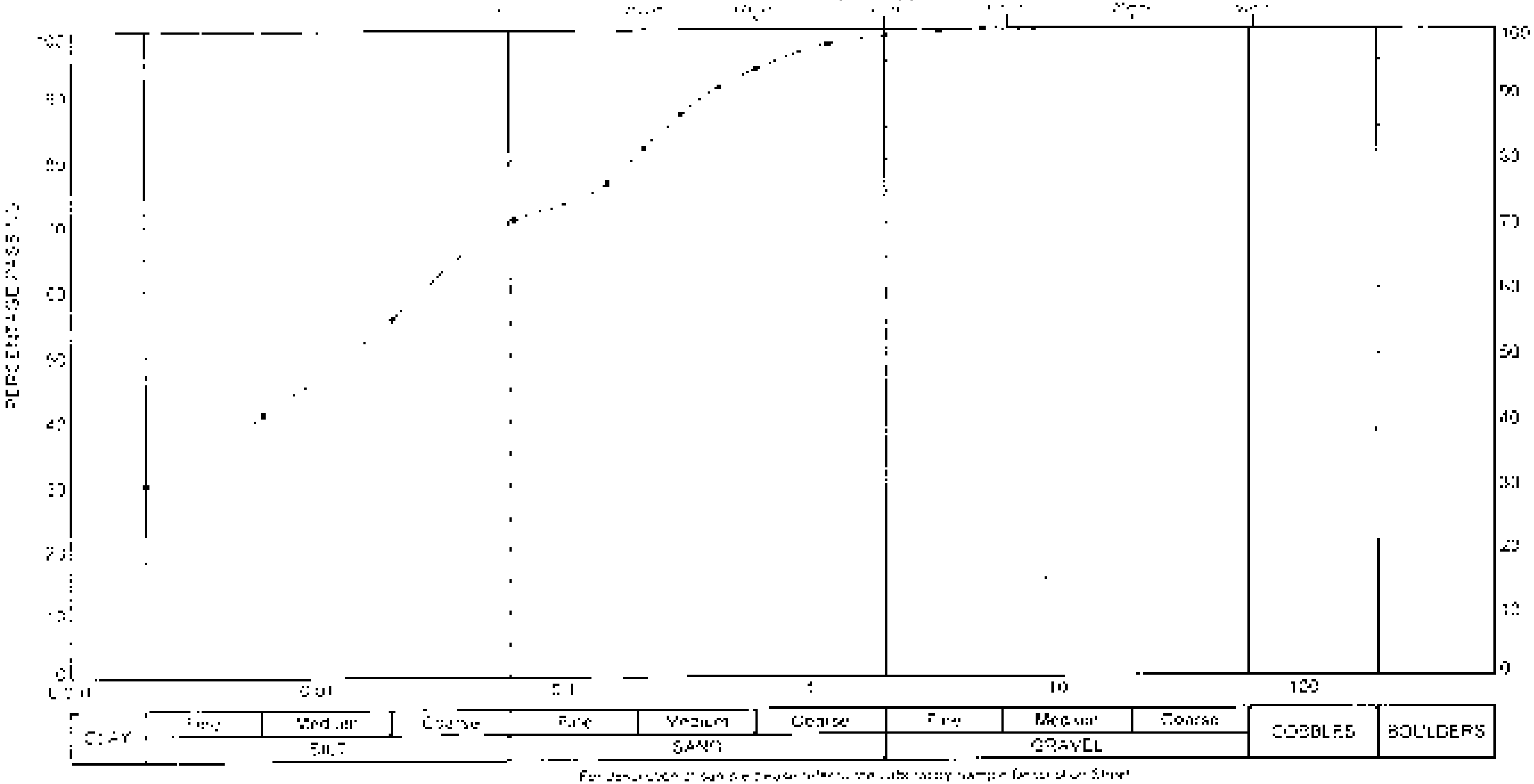
UKAS 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP176 | Depth (m) : 2.00 | Sample Type & No : B5 | Sample Depth (m) : 2.00 | Date Tested : 29/09/2020



Sieve Size (mm)	Passing (%)
5	100.0
3.35	99.0
2	98.9
1.18	97.7
0.6	[illegible]
0.425	91.2
0.3	87.1
0.212	81.8
0.15	75.4
0.063	70.9
0.02	45.7
0.006	41.1
0.002	30.1

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 20/10/2020

Certificate No : PSD 4251 PRAIRIE_AUK_TP176 B5 2.00

Signed : [signature]

Name

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

1307

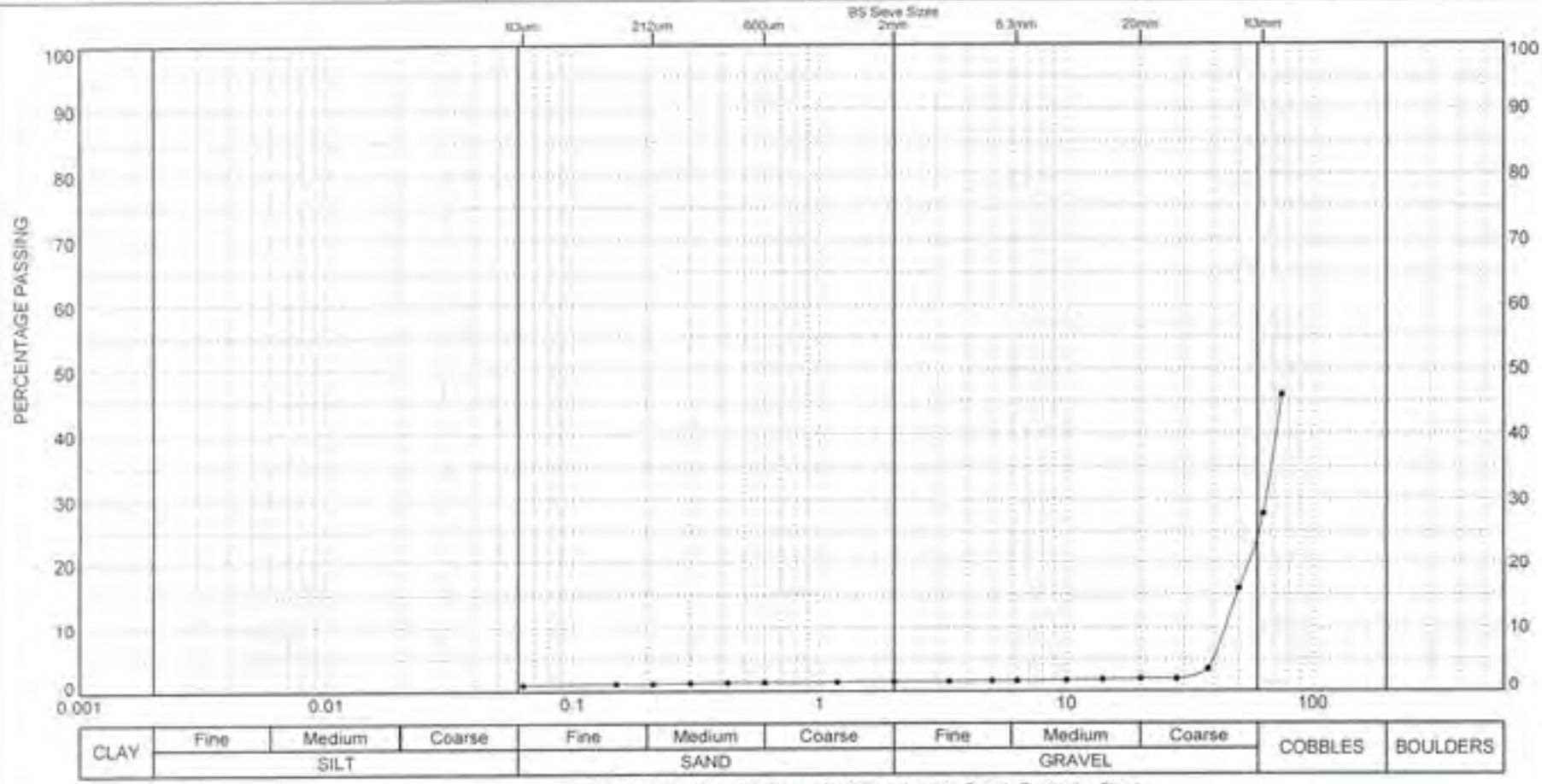
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Riverside Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 20, Business Development Centre, Earnam Wharf, Blackburn, BB1 5BL - Tel: 01772 335 300 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :-	Depth (m) :-	Sample Type & No :-	Specific Depth (m) :-	Date Tested :-
PRAIRIE_AUK_TP177	1.80	B7	1.80	30/09/2020



Sieve Size (mm)	Passing (%)
75	46.0
63	27.8
50	15.9
37.5	3.4
28	2.0
20	2.0
14	1.9
10	1.8
6.3	1.7
5	1.7
3.35	1.6
2	1.6
1.18	1.5
0.6	1.4
0.425	1.4
0.3	1.3
0.212	1.2
0.15	1.2
0.063	1.0

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP177/B7/1.80		SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

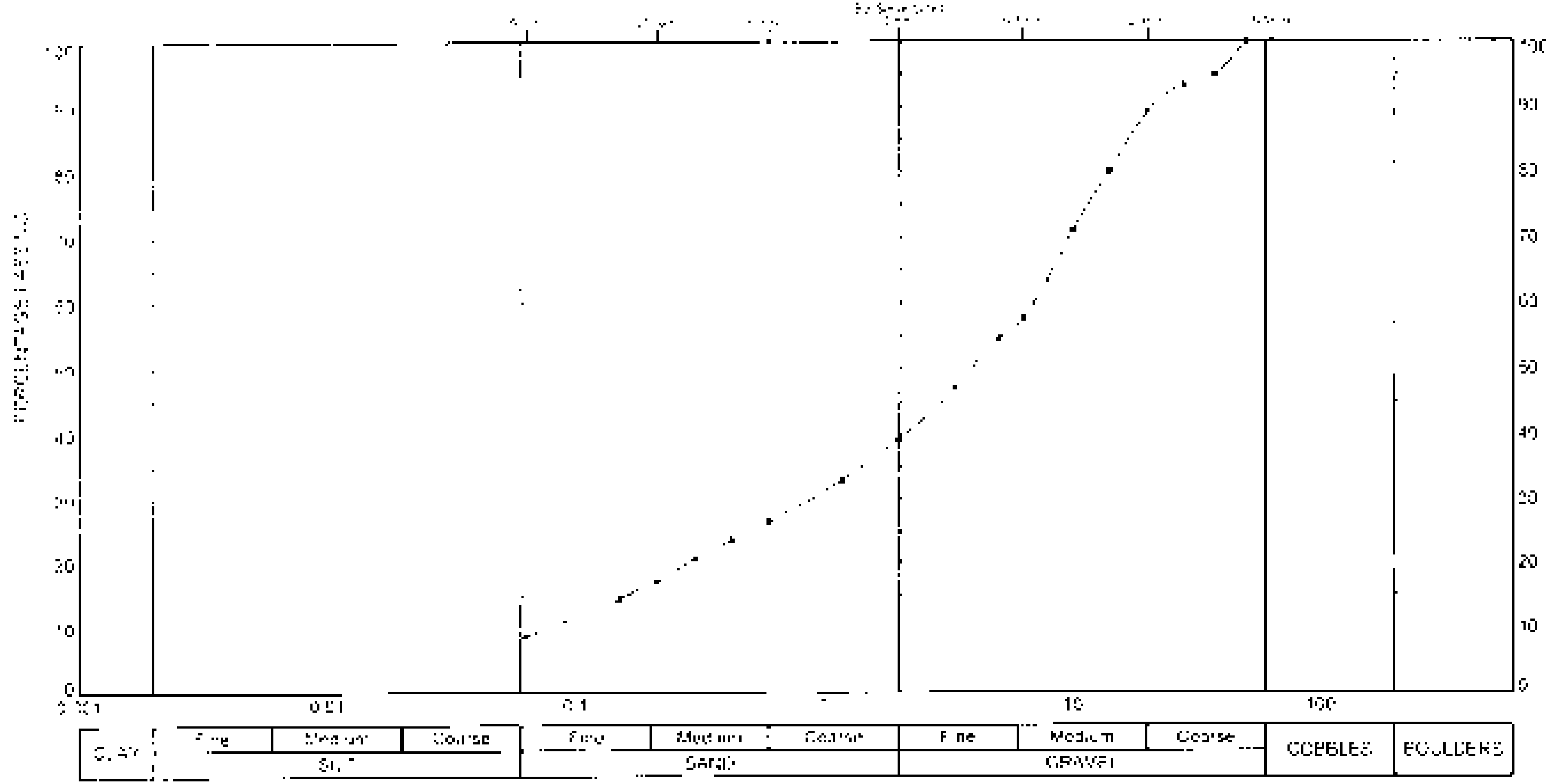
UKAS TESTING
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 Clause 9.2 & 9.4 : 1990

Exploratory Hole No - PRAIRIE_AUK_TP178 | Depth (m) 0.60 | Sample Type & No - B2 | Specific Depth (m) 0.60 | Date Tested - 05/10/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	94.9
28	93.2
20	89.2
14	80.1
10	71.1
6.3	57.6
5	54.5
3.35	47.1
2	39.3
1.18	32.0
0.6	25.6
0.425	23.8
0.3	20.9
0.212	17.2
0.15	14.5
0.063	9.6

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue - 20.10.2020 | Certificate No - RSC 4251-PRAIRIE_AUK_TP178 B2 0.60 | Signed - | Name - | Page 1 of 1

Client - South Tees Development Corporation | Contract Title - Prairie Site Ground Investigation Works | AEG Contract No - 4251

1367

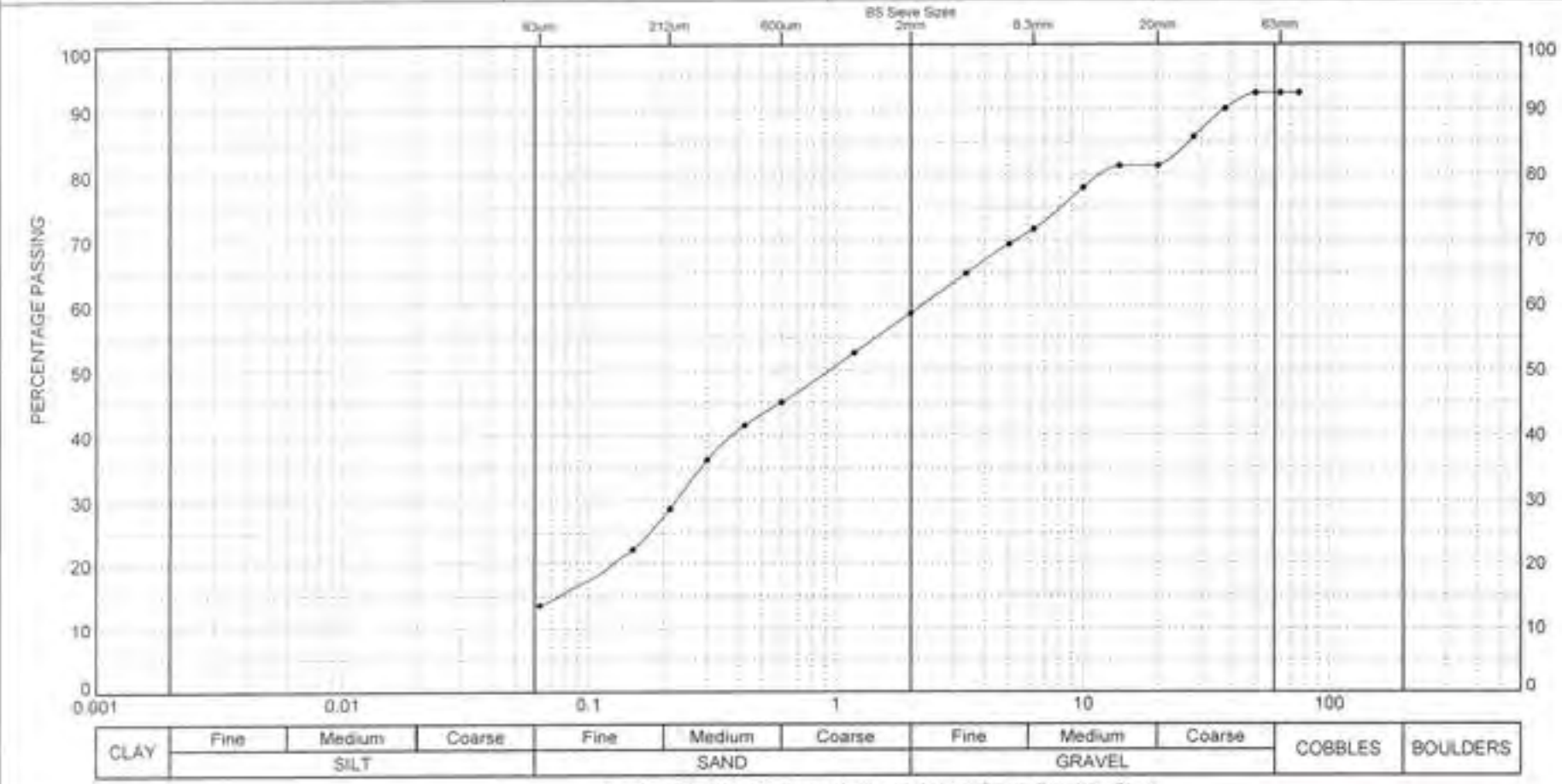
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4700 Fax: 0191 387 4710
Regional Office: Unit 29, Business Development Centre, Eanam Wharf, Blackburn, BB1 5RL - Tel: 01772 735 300 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_TP179**	Depth (m) :- **0.40**	Sample Type & No :- **B2**	Specific Depth (m) :- **0.40**	Date Tested :- **30/09/2020**



Sieve Size (mm)	Passing (%)
75	92.5
63	92.5
50	92.5
37.5	90.1
28	85.8
20	81.4
14	81.4
10	78.1
6.3	71.7
5	69.4
3.35	64.9
2	58.8
1.18	52.7
0.6	45.1
0.425	41.6
0.3	36.3
0.212	28.8
0.15	22.5
0.063	13.6

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP179/B2/0.40	MSone	M. SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

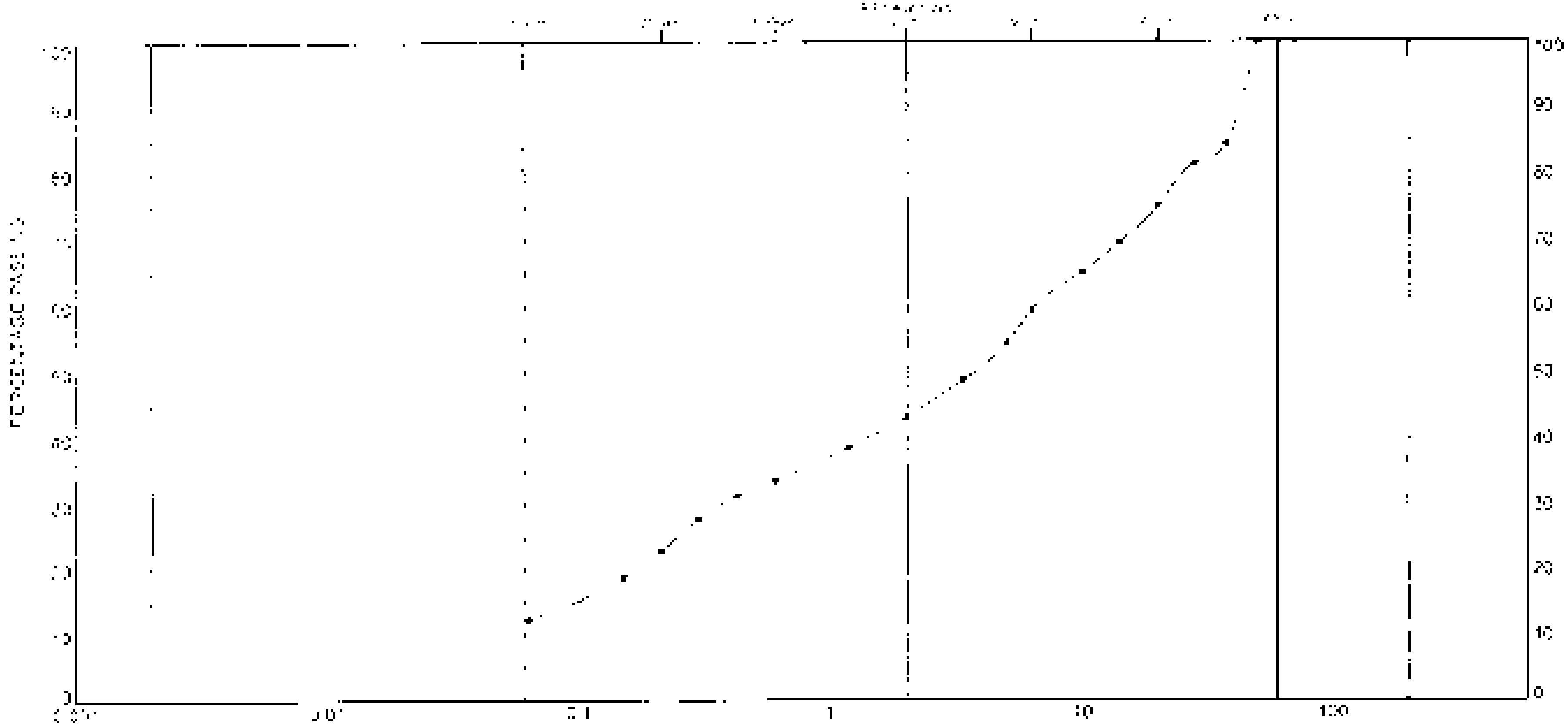
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No. : PRAIRIE_AUK_TP181 | Depth (m) : 0.50 | Sample Type & No. : B2 | Specific Depth (m) : 0.50 | Date Tested : 02/10/2020



CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS
	SILT			SAND			GRAVEL				

Sieve Size (mm)	Passing (%)
50	100.0
37.5	84.4
28	81.5
20	75.2
14	69.0
10	65.2
6.3	59.4
5	54.4
3.35	48.9
2	43.3
1.18	39.7
0.6	33.7
0.425	31.4
0.3	28.0
0.212	23.0
0.15	18.7
0.063	12.3

For description of samples please refer to the laboratory Sample Description Sheet

Date of Issue : 20/10/2020

Certificate No. : PPD 4251 PRAIRIE_AUK_TP181 B2 0.50

Signed : *MSore*

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No. : 4251

1367

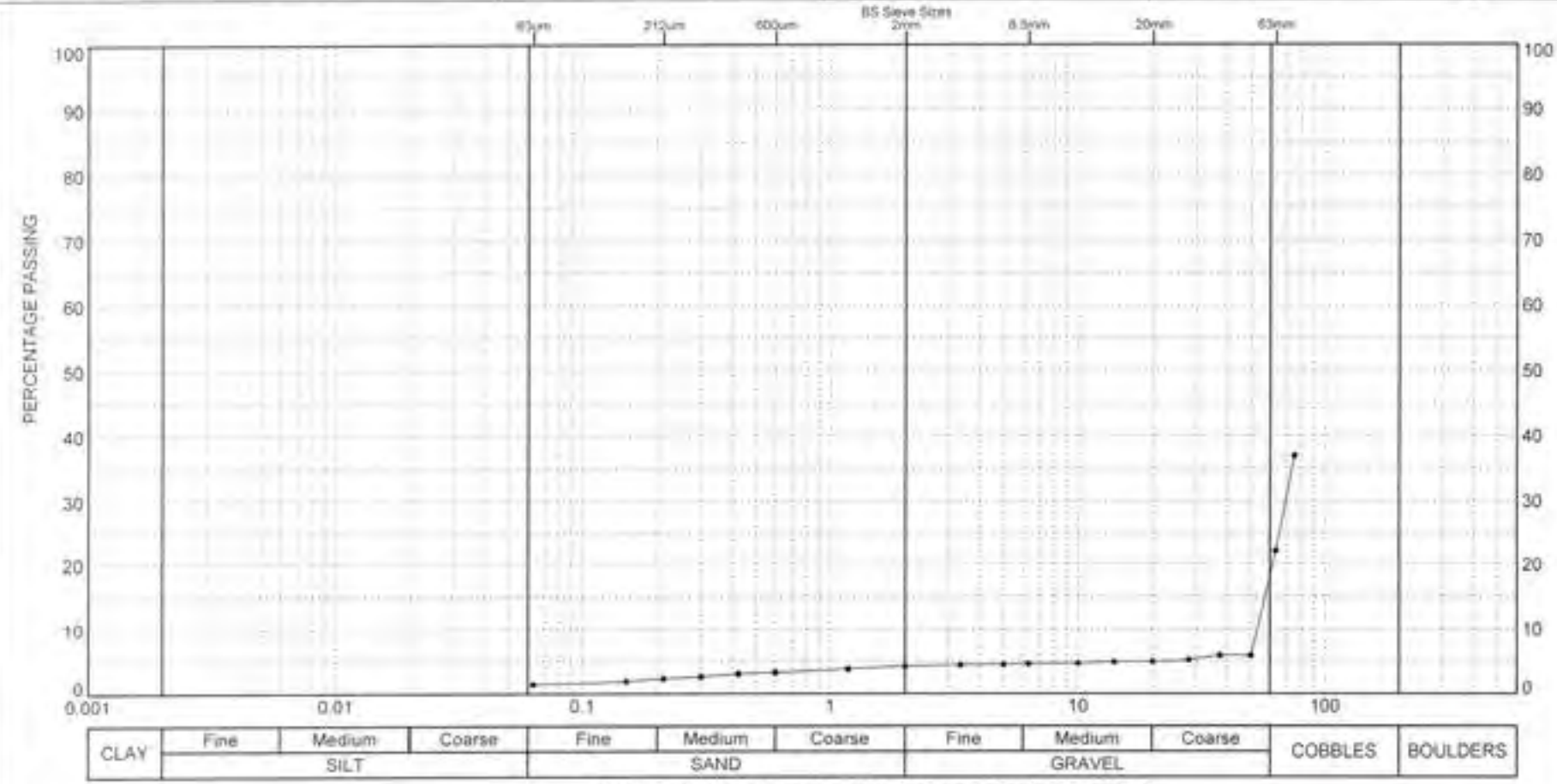
ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 387 4100 Fax: 0191 387 4742
Regional Office: Unit 20, Riverview Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 500 Fax: 01772 735 999

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No :- **PRAIRIE_AUK_TP181**	Depth (m) :- **1.10**	Sample Type & No :- **B4**	Specific Depth (m) :- **1.10**	Date Tested :- **30/09/2020**



Sieve Size (mm)	Passing (%)
75	37.0
63	22.3
50	6.0
37.5	6.0
28	5.3
20	5.0
14	4.9
10	4.7
6.3	4.6
5	4.5
3.35	4.4
2	4.2
1.18	3.8
0.6	3.3
0.425	3.1
0.3	2.7
0.212	2.4
0.15	2.0
0.063	1.5

For description of sample please refer to the Laboratory Sample Description Sheet

Date of issue :-	Certificate No :-	Signed :-	Name :-	Page 1 of 1
20/10/2020	PSD/4251/PRAIRIE_AUK_TP181/B4/1.10	M Sorel	M. SELKIRK	

Client :-	Contract Title :-	AEG Contract No :-
South Tees Development Corporation	Prairie Site Ground Investigation Works	4251

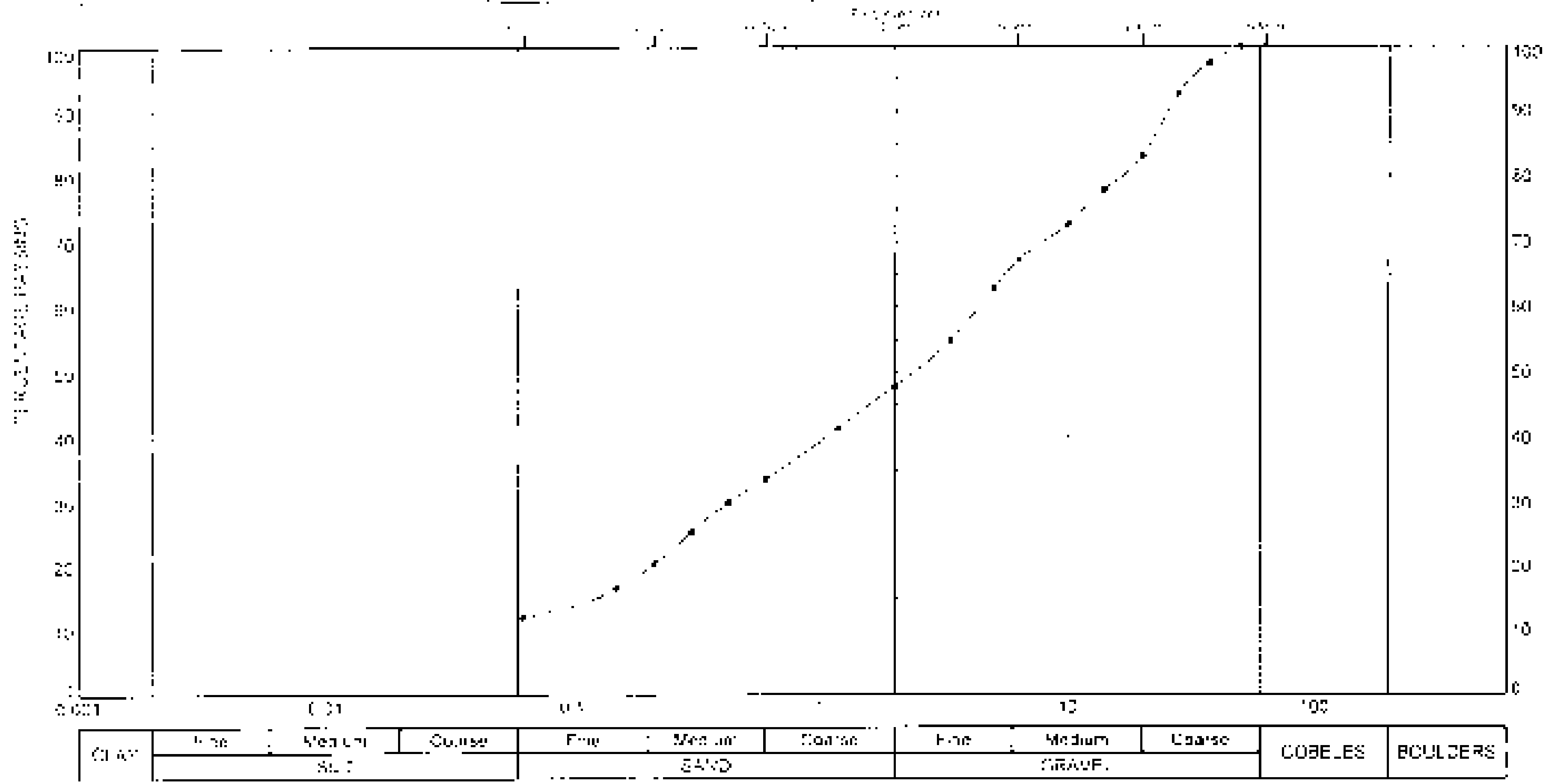
UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP182 | Depth (m) : 0.60 | Sample Type & No : D2 | Specific Depth (m) : 0.60 | Date Tested : 28/09/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	97.4
28	92.7
20	87.2
14	78.0
10	72.7
6.3	67.3
5	62.9
3.35	54.9
2	49.0
1.18	41.6
0.6	33.8
0.425	30.3
0.3	25.6
0.212	20.4
0.15	16.5
0.063	12.0

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 20.10.2020 | Certificate No : PSD 4251 PRAIRIE_AUK_TP182 R0 0.60 | Signed : | Name : | Page 1 of 1

Client : South Tees Development Corporation | Contract Title : Prairie Site Ground Investigation Works | AEG Contract No : 4251

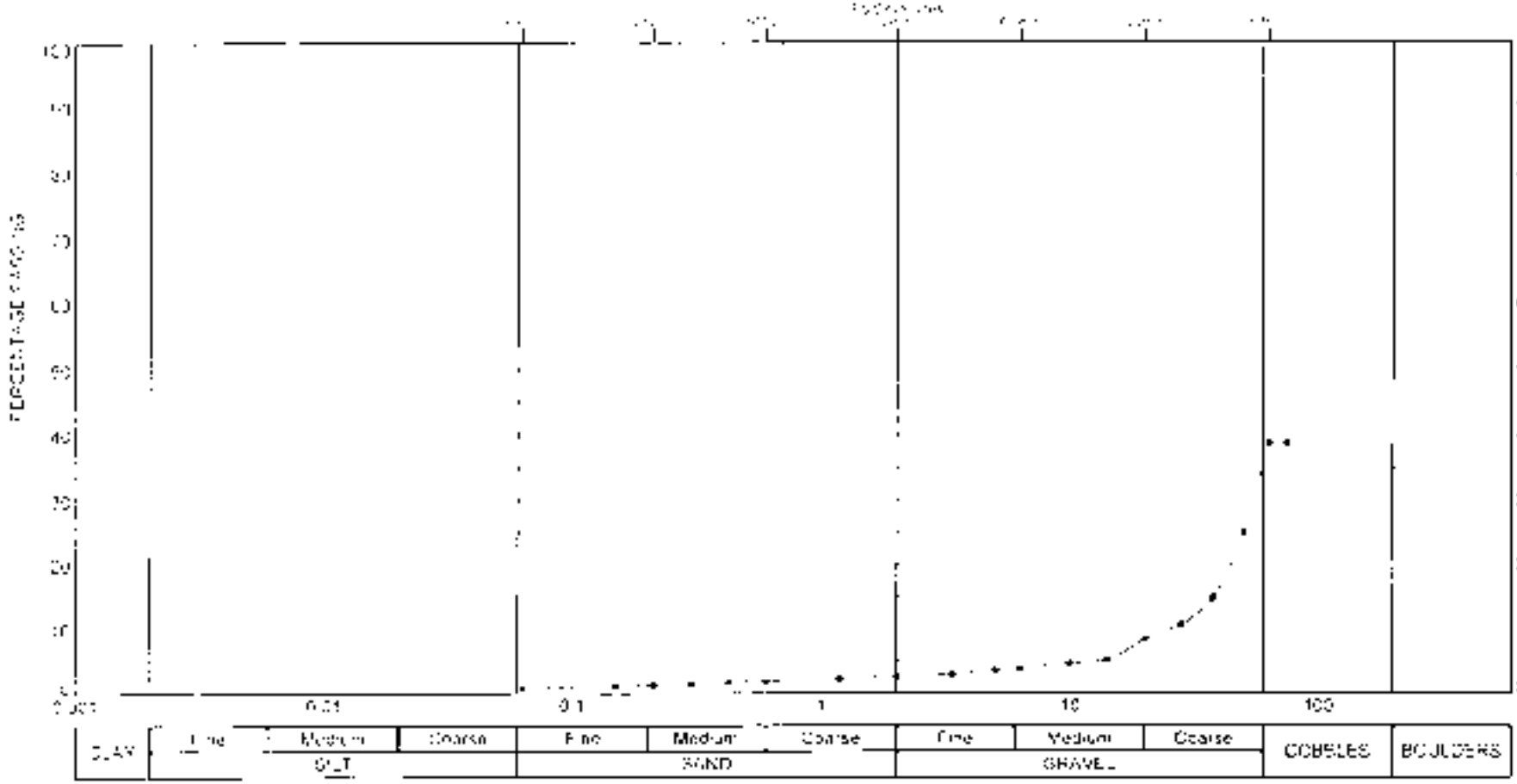
1357

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP183 | Depth (m) : 0.80 | Sample Type & No : B2 | Specific Depth (m) : 0.80 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
75	38.9
63	38.9
50	25.1
37.5	14.9
28	10.7
20	8.3
14	5.2
10	4.0
6.3	3.6
5	3.5
3.35	3.0
2	2.1
1.18	2.0
0.6	1.9
0.425	1.8
0.3	1.6
0.212	1.3
0.15	1.1
0.063	0.8

Date Issued: 30/10/2020

Certificate No: PSD 4251-PRAIRIE_AUK_TP183 B2 0.80 Signed: Name:

Page 1 of 1

Client: Scarborough Development Corporation

Contract Title: Prairie Site Ground Investigation Works

AGS Contract No: 4251

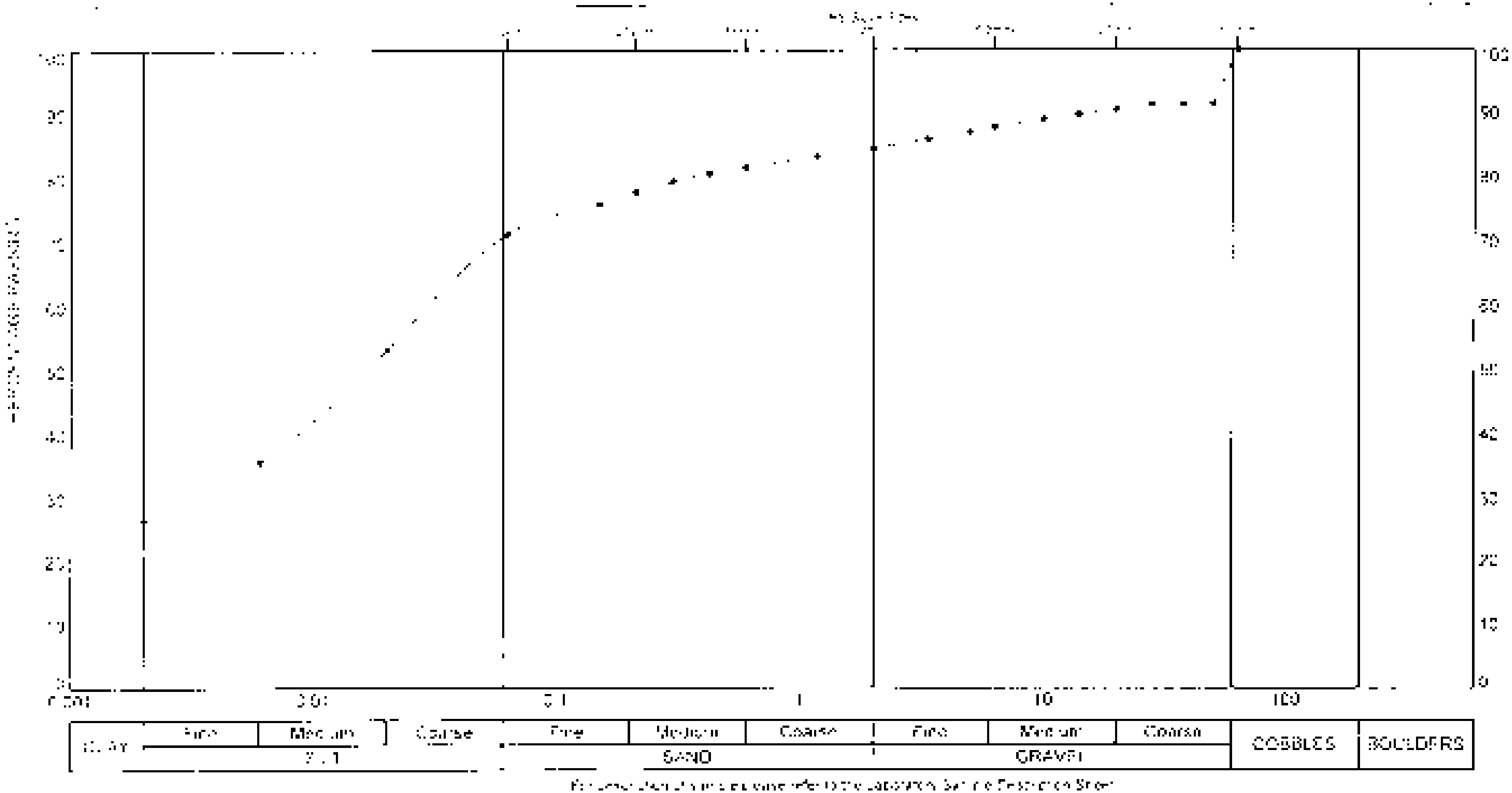
1067

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP185   Depth (m) : 3.50   Sample Type & No : B2   Specimen Depth (m) : 3.50   Date Tested : 28/09/2020



Sieve Size (mm)	Passing (%)
63	100.0
50	91.6
37.5	91.5
28	91.5
20	90.7
14	89.9
10	89.1
6.3	87.9
5	87.1
3.35	86.2
2	84.5
1.18	83.3
0.6	81.6
0.425	80.7
0.3	79.4
0.212	77.8
0.15	76.2
0.063	71.2
0.02	53.3
0.006	35.4
0.002	26.6

For Laboratory Descriptions please refer to the Laboratory Sample Description Sheet

Date of Issue : 20/10/2020   Certificate No : PA04251 PRAIRIE_AUK_TP185-B2 3.50   Signed : msone   Name :   Page 1 of 1

Client : South Tees Development Corporation   Contract Title : Prairie Site Ground Investigation Works   AEG Contract No : 4251

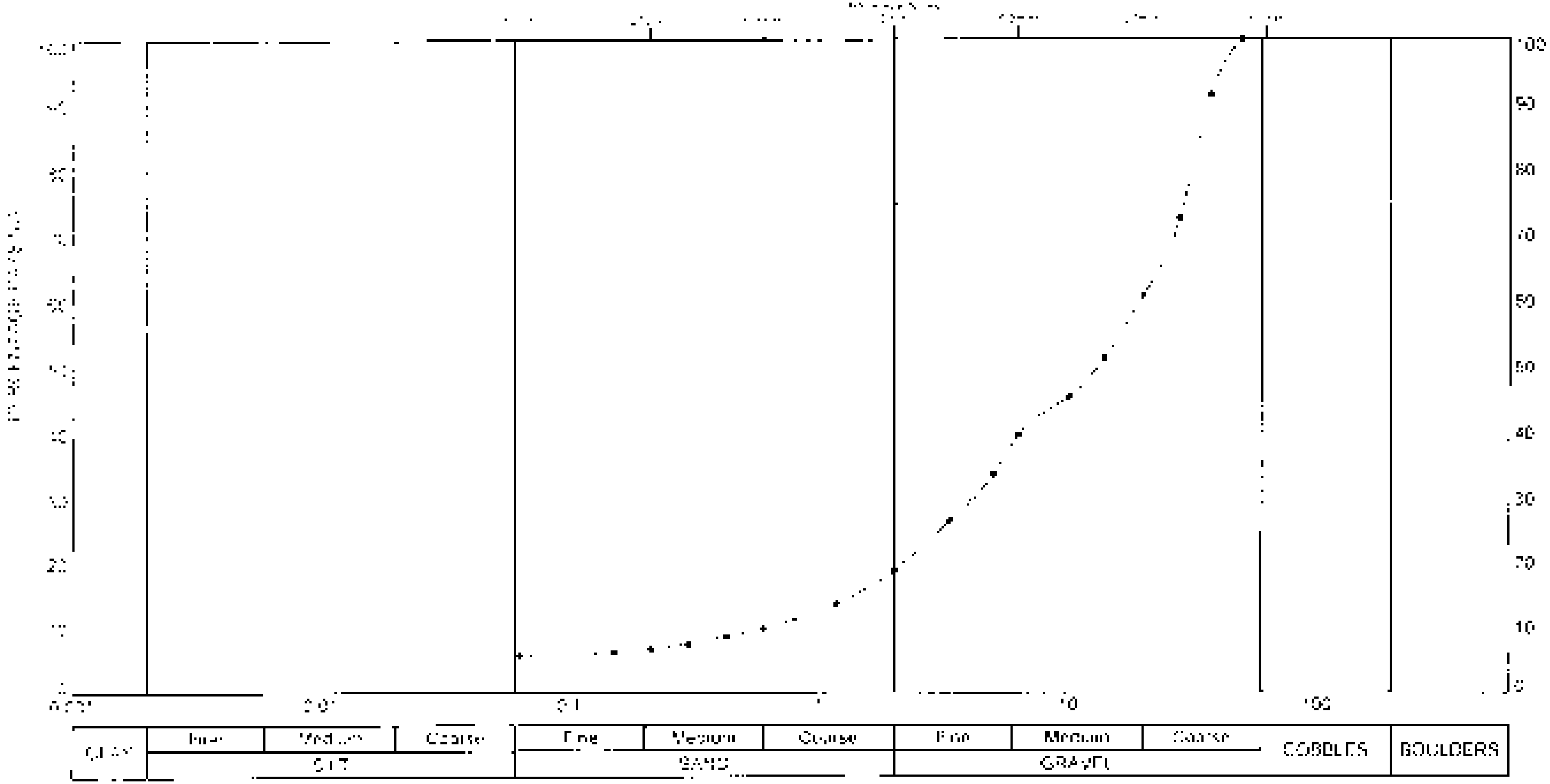
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990
(Test deviated from standard due to insufficient sample mass)

Exploratory Hole No : PRAIRIE_AUK_TP188 | Depth (m) : 0.60 | Sample Type & No : B2 | Specific Depth (m) : 0.60 | Date Tested : 28/09/2020



Sieve Size (mm)	Passing (%)
50	100.0
37.5	91.5
28	72.7
20	61.0
14	51.5
10	45.5
6.3	39.6
5	34.9
3.35	26.8
2	18.8
1.18	13.7
0.6	9.0
0.425	8.6
0.3	7.5
0.212	6.7
0.15	6.7
0.063	5.9

Date of Issue : 30/10/2020 | Certificate No : PSD/4251/PRAIRIE_AUK_TP188/B2/0.60 | Signed : | Name : | Page 1 of 1

Client : South Tees Development Corporation | Contract Title : Prairie Site Ground Investigation Works | AEG Contract No : 4251

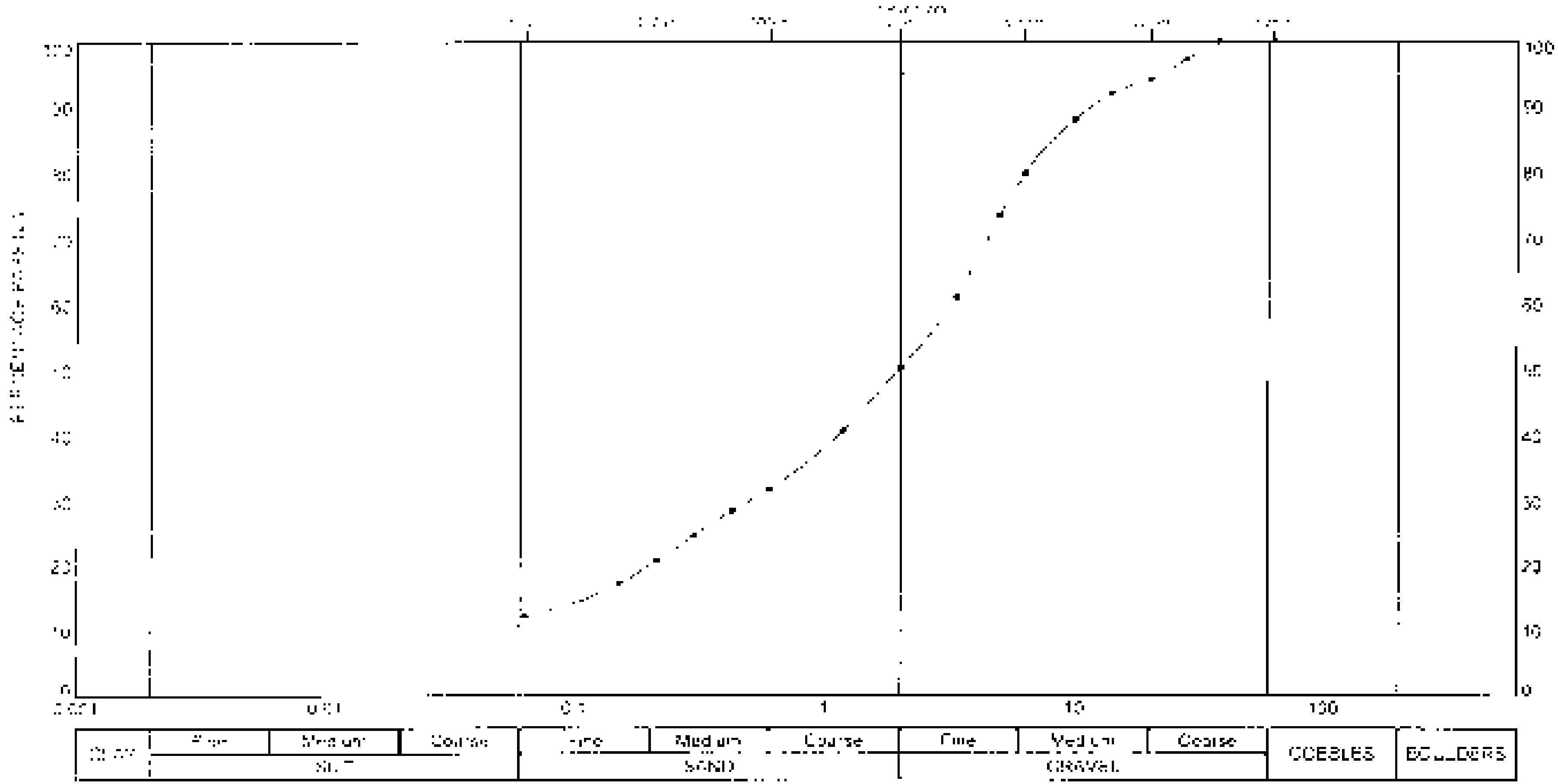
1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No - PRAIRIE_AUK_TP189 | Depth (m) - 0.50 | Sample Type & No - B2 | Specific Depth (m) - 0.50 | Date Tested - 01/10/2020



Sieve Size (mm)	Passing (%)
37.5	100.0
28	97.2
20	94.7
14	90.0
10	88.1
6.3	80.0
5	73.6
3.35	61.2
2	50.4
1.18	40.8
0.6	33.0
0.425	28.7
0.3	24.0
0.212	20.8
0.15	17.2
0.063	12.7

For description of sample please refer to the relevant Sample Description sheet

Date of Issue - 20.10.2020

Certificate No - PSD 4251 PRAIRIE_AUK_TP189 B2 0.50

Signed -

Name -

Page 1 of 1

Client - South Wales Development Corporation

Contract Title - Prairie Site Ground Investigation Works

AEG Contract No - 4251

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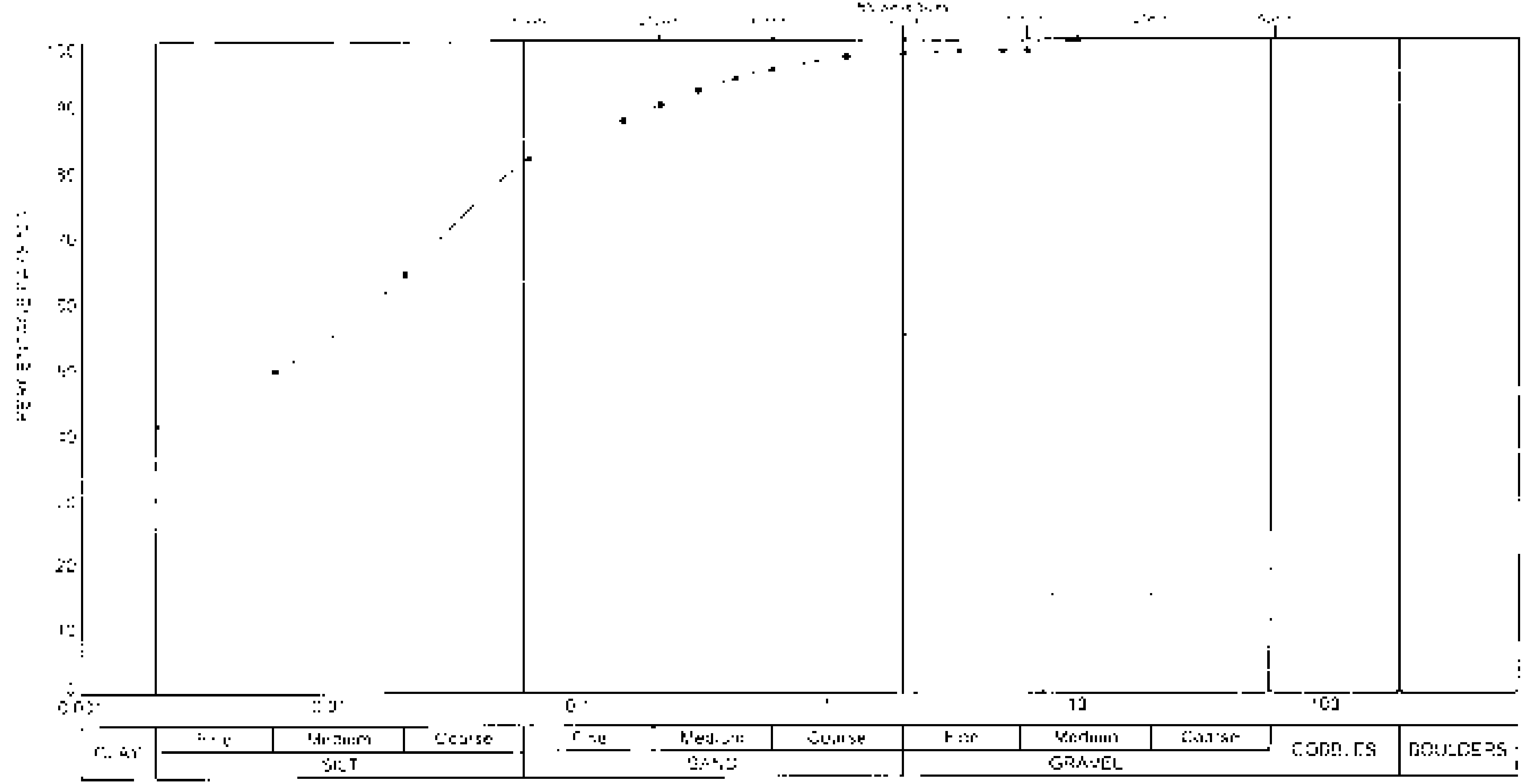
ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

DS1377 Part 2 Clause 9.2 & 9.4 : 1990

Exploratory Hole No : **PRAIRIE_AUK_TP189** Depth (m) : **1.50** Sample Type & No : **B4** Specific Depth (m) : **1.50** Date Tested **29/09/2020**



Sieve Size (mm)	Passing (%)
10	100.0
6.3	99.2
5	98.2
3.35	98.1
2	97.6
1.18	97.3
0.6	95.5
0.425	94.1
0.3	92.3
0.212	90.1
0.15	87.7
0.063	82.5
0.02	64.4
0.006	49.7
0.002	41.4

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 03/10/2020

Certificate No : PSD-4251 PRAIRIE_AUK_TP189 B4 1.50

Signed

Name :

Page 1 of 1

Client : South Wales Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

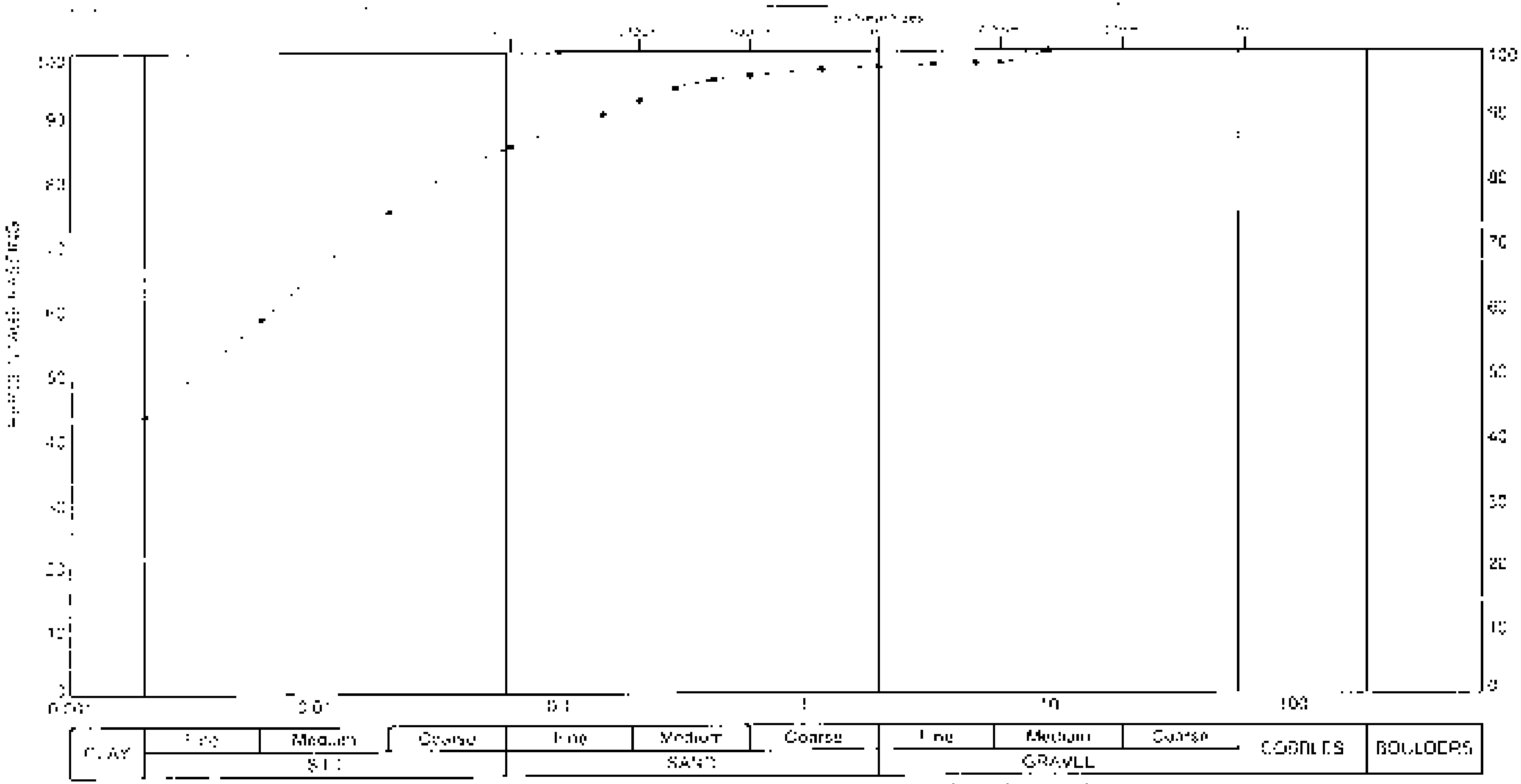
UKAS 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

PARTICLE SIZE DISTRIBUTION

BS1377 : Part 2 : Clause 9.2 & 9.4 : 1990

Exploratory Hole No : PRAIRIE_AUK_TP189 | Depth (m) : 2.90 | Sample Type & No : B6 | Specific Depth (m) : 2.90 | Date Tested : 30/09/2020



Sieve Size (mm)	Passing (%)
10	100.0
6.3	99.1
5	98.9
3.35	97.8
2	97.5
1.18	97.1
0.6	96.2
0.425	95.5
0.3	94.3
0.212	92.4
0.15	90.2
0.063	85.3
0.02	75.2
0.006	56.6
0.002	42.7

For description of sample please refer to the Laboratory Sample Description Sheet

Date of Issue : 30/10/2020

Certificate No : 4251 PRAIRIE_AUK_TP189 B6 2.90

Signed :

Name :

Page 1 of 1

Client : South Tees Development Corporation

Contract Title : Prairie Site Ground Investigation Works

AEG Contract No : 4251

1357

LABORATORY TESTING ENCLOSURE 5

Determination of Calorific Value, Organic Matter Content, Sulphate and pH (Tested Externally)

DETS

Certificate of Analysis

Certificate Number 20-21273

28-Oct-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-21273

Client Reference 4251

Order No LA 2399

Contract Title Prairie Site Ground Investigation Works

Description 13 Soil samples.

Date Received 22-Oct-20

Date Started 22-Oct-20

Date Completed 28-Oct-20

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

UKAS TESTING
2139

Summary of Chemical Analysis

Soil Samples

Our Ref 20-21273
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1749354	1749355	1749356	1749357	1749358	1749359	1749360
					PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_
				Sample ID	BH103	BH104	BH104	BH106	BH106	BH108	TP112
				Depth	13.00	5.95	11.00	5.50	9.50	8.00	1.00
				Other ID	27	3	13	2	10	15	3
				Sample Type	J	J	J	U	J	J	J
				Sampling Date	09/04/2020	03/04/2020	03/04/2020	06/04/2020	06/04/2020	15/04/2020	22/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**								
Inorganics											
pH	DETSC 2008#		pH		8.2	8.0	8.3	8.6	7.9	8.2	11.7
Calorific Value	DETSC 5008	1	MJ/kg								2.2
Organic matter	DETSC 2002#	0.1	%								
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l		220	140	120	50	610	110	92

Key: # MCERTS (accreditation only applies if report carries the MCERTS logo). n/s not supplied

Summary of Chemical Analysis

Soil Samples

Our Ref 20-21273
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1749361	1749362	1749363	1749364	1749365	1749366
					PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_
				Sample ID	TP115	TP116	TP118	TP120	TP149	TP154
				Depth	1.40	1.60	1.50	0.50	1.80	0.60
				Other ID	4	5	4	1	4	1
				Sample Type	1	1	1	1	1	1
				Sampling Date	08/04/2020	23/04/2020	23/04/2020	20/04/2020	09/04/2020	21/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**							
Inorganics										
pH	OETSC 2008#		pH		10.3	6.8			7.9	11.2
Calorific Value	OETSC 5008	1	MJ/kg		< 1.0			< 1.0		< 1.0
Organic matter	OETSC 2002#	0.1	%			4.0	3.7			
Sulphate Aqueous Extract as SO4	OETSC 2076#	10	mg/l		480	1200			330	210

Key: # - MCERTS (accreditation only applies if report carries the MCERTS logo). n/s - not supplied.

Information in Support of the Analytical Results

Our Ref 20-21273
Client Ref 4251
Contract Prairie Site Ground Investigation Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1749354	PRAIRIE_AUK_BH103 13.00 SOIL	09/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749355	PRAIRIE_AUK_BH104 5.95 SOIL	03/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749356	PRAIRIE_AUK_BH104 11.00 SOIL	03/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749357	PRAIRIE_AUK_BH106 5.50 SOIL	06/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749358	PRAIRIE_AUK_BH106 9.50 SOIL	06/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749359	PRAIRIE_AUK_BH108 8.00 SOIL	15/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749360	PRAIRIE_AUK_TP112 1.00 SOIL	22/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749361	PRAIRIE_AUK_TP115 1.40 SOIL	08/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749362	PRAIRIE_AUK_TP116 1.60 SOIL	23/04/20	PT 1L	Anions 2:1 (10 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1749363	PRAIRIE_AUK_TP118 1.50 SOIL	23/04/20	PT 1L	Organic Matter (Manual) (28 days)	
1749364	PRAIRIE_AUK_TP120 0.50 SOIL	20/04/20	PT 1L		
1749365	PRAIRIE_AUK_TP149 1.80 SOIL	09/04/20	PT 1L	Anions 2:1 (10 days), pH + Conductivity (7 days)	
1749366	PRAIRIE_AUK_TP154 0.60 SOIL	21/04/20	PT 1L	Anions 2:1 (10 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

DETS

Certificate of Analysis

Certificate Number 20-10974

25-Jun-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-10974

Client Reference 4251

Order No LA 2358

Contract Title Prairie Site Ground Investigation Works

Description 4 Soil samples.

Date Received 22-Jun-20

Date Started 22-Jun-20

Date Completed 25-Jun-20

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

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 20-10974
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1687327	1687328	1687329	1687330
				PRAIRIE_	PRAIRIE_	PRAIRIE_	PRAIRIE_
				AUK_BH1	AUK_BH1	AUK_BH1	AUK_BH1
			Sample ID	01	01	01	01
			Depth	4.00	9.00	17.00	18.00
			Other ID	8	14	30	33
			Sample Type	J	J	J	J
			Sampling Date	27/04/2020	27/04/2020	28/04/2020	29/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Inorganics							
pH	DETSC 2008#		pH			7.8	8.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1100	270	2400	3000

Information in Support of the Analytical Results

Our Ref 20-10974
Client Ref 4251
Contract Prairie Site Ground Investigation Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1687327	PRAIRIE_AUK_BH101 4.00 SOIL	27/04/20	PT 1L	Anions 2:1 (30 days)	
1687328	PRAIRIE_AUK_BH101 9.00 SOIL	27/04/20	PT 1L	Anions 2:1 (30 days)	
1687329	PRAIRIE_AUK_BH101 17.00 SOIL	28/04/20	PT 1L	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1687330	PRAIRIE_AUK_BH101 18.00 SOIL	29/04/20	PT 1L	Anions 2:1 (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.

Certificate of Analysis

Certificate Number 20-12672-1

20-Jul-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-12672-1

Client Reference 4251

Order No LA 2358

Contract Title Prairie Site Ground Investigations Works

Description 7 Soil samples.

Date Received 15-Jul-20

Date Started 15-Jul-20

Date Completed 20-Jul-20

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

Notes **This report supersedes 20-12672, amendments.**
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

Summary of Chemical Analysis
Soil Samples

Our Ref 20-12672-1
Client Ref 4251
Contract Title Prairie Site Ground Investigations Works

			Lab No	1697828	1697829
			Sample ID	PRAIRIE_AUK_BH107	PRAIRIE_AUK_BH107
			Depth	5.45	7.50
			Other ID	3	12
			Sample Type	J	J
			Sampling Date	24/04/2020	24/04/2020
			Sampling Time	n/a	n/a
Test	**Method**	**LOD**	**Units**		
Inorganics					
pH	DETSC 2008#		pH	8.0	7.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110	250

Summary of Chemical Analysis
Soil Samples

Our Ref 20-12672-1
Client Ref 4251
Contract Title Prairie Site Ground Investigations Works

			Lab No	1697830	1697831
			Sample ID	PRAIRIE_AUK_BH107	PRAIRIE_AUK_BH108
			Depth	9.00	7.00
			Other ID	16	14
			Sample Type	J	B
			Sampling Date	24/04/2020	15/04/2020
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Inorganics					
pH	DETSC 2008#		pH	7.9	8.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1700	640

Summary of Chemical Analysis
Soil Samples

Our Ref 20-12672-1
Client Ref 4251
Contract Title Prairie Site Ground Investigations Works

			Lab No	1697832	1697833
			Sample ID	PRAIRIE_AUK_BH108	PRAIRIE_AUK_BH110
			Depth	9.00	11.45
			Other ID	18	19
			Sample Type	J	J
			Sampling Date	15/04/2020	21/04/2020
			Sampling Time	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Inorganics					
pH	DETSC 2008#		pH	7.8	8.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1700	480

Summary of Chemical Analysis
Soil Samples

Our Ref 20-12672-1
Client Ref 4251
Contract Title Prairie Site Ground Investigations Works

Lab No	1697834
Sample ID	PRAIRIE_AUK_BH110
Depth	15.00
Other ID	27
Sample Type	J
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Inorganics				
pH	DETSC 2008#		pH	8.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	2200

Information in Support of the Analytical Results

Our Ref 20-12672-1
Client Ref 4251
Contract Prairie Site Ground Investigations Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests	Headspace in container for tests
1697828	PRAIRIE_AUK_BH10 7 3.45 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)		
1697829	PRAIRIE_AUK_BH10 7 7.50 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)		
1697830	PRAIRIE_AUK_BH10 7 9.00 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)		
1697831	PRAIRIE_AUK_BH10 8 7.00 SOIL	15/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)		
1697832	PRAIRIE_AUK_BH10 8 9.00 SOIL	15/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)		
1697833	PRAIRIE_AUK_BH11 0 11.45 SOIL	21/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)		
1697834	PRAIRIE_AUK_BH11 0 15.00 SOIL	22/04/20	PT 500ml	Anions 2:1 (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 425um sieve, in accordance with BS1377.

Organic soil analysis was carried out on an 'as received' sample. Organic 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 20°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 (last portion) - 6 months

DETS

Certificate of Analysis

Certificate Number 20-19447 13-Oct-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference 20-19447

Client Reference 4251

Order No LA 2399

Contract Title Prairie Site Ground Investigation Works

Description 21 Soil samples.

Date Received 05-Oct-20

Date Started 05-Oct-20

Date Completed 13-Oct-20

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

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Summary of Chemical Analysis
Soil Samples

Our Ref 20-19447
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1738055	1738056	1738057	1738058	1738059	1738060	1738061	1738062	1738063	1738064
				Sample ID	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP104	PRAIRIE_AUK_TP107	PRAIRIE_AUK_TP124	PRAIRIE_AUK_TP132	PRAIRIE_AUK_TP146C	PRAIRIE_AUK_TP162	PRAIRIE_AUK_TP162	PRAIRIE_AUK_TP163
				Depth	0.60	4.40	2.00	0.50	1.00	0.50	1.00	0.70	3.10	1.60
				Other ID	1	14	8	3	3	2	4	1	7	4
				Sample Type	J	J	J	J	J	J	J	J	J	J
				Sampling Date	01/04/2020	01/04/2020	01/04/2020	06/04/2020	08/04/2020	02/04/2020	14/04/2020	14/04/2020	14/04/2020	14/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**											
Inorganics														
pH	DETSC 2008#		pH		9.8			10.5				9.7	8.9	
Calorific Value	DETSC 5008	1	MJ/kg		4.8				4.6	< 1.0	3.5	3.6		
Organic matter	DETSC 2002#	0.1	%			9.0	3.2							2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l		2300			890				230	250	

key: # MCERTS (accreditation only applies if report carries the MCERTS logo) n/s: not supplied

Summary of Chemical Analysis
Soil Samples

Our Ref 20-19447
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1738065	1738066	1738067	1738068	1738069	1738070	1738071	1738072	1738073	1738074
					PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK	PRAIRIE_AUK
				Sample ID	TP165	TP165	TP173	TP176	TP178	TP178	TP179	TP182	TP188	TP189
				Depth	1.50	2.50	0.60	1.50	0.40	1.60	0.20	0.30	0.40	0.30
				Other ID	4	6	1	4	1	5	1	1	1	1
				Sample Type	J	J	J	J	J	B	J	J	J	J
				Sampling Date	15/04/2020	15/04/2020	09/04/2020	07/04/2020	06/04/2020	06/04/2020	09/04/2020	09/04/2020	08/04/2020	07/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**											
Inorganics														
pH	DETSC 2008#		pH	12.1		8.0	5.8	8.1		8.2		7.6	
Calorific Value	DETSC 5008	1	MJ/kg		5.6			22.4		23.3	24.2	22.5	3.9
Organic matter	DETSC 2002#	0.1	%			8.3	3.7		5.0				
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	40		2400	2000	160		32		220	

e.g. # MCERTS (accreditation only applies if report carries the MCERTS logo). n/s not supplied.

Summary of Chemical Analysis
Soil Samples

Our Ref 20-19447
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

Lab No	1733075
Sample ID	PRAIRIE_AUK_TP189
Depth	1.40
Other ID	3
Sample Type	J
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Inorganics				
pH	DETSC 2008#		pH	7.3
Calorific Value	DETSC 5008	1	MJ/kg	
Organic matter	DETSC 2002#	0.1	%	2.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	570

Key: # MCERTS (accreditation only applies if report carries the MCERTS logo), n/s = not supplied.

Information in Support of the Analytical Results

Our Ref 20-19447
Client Ref 4251
Contract Prairie Site Ground Investigation Works

Containers Received & Deviating Samples

Lab No	Sample ID	Date Sampled	Containers Received	Holding time exceeded for tests	Inappropriate container for tests
1738055	PRAIRIE_AUK_TP101 0.60 SOIL	01/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738056	PRAIRIE_AUK_TP101 4.40 SOIL	01/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738057	PRAIRIE_AUK_TP104 2.00 SOIL	01/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738058	PRAIRIE_AUK_TP107 0.50 SOIL	06/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738059	PRAIRIE_AUK_TP124 1.80 SOIL	08/04/20	PT 500ml		
1738060	PRAIRIE_AUK_TP132 0.50 SOIL	02/04/20	PT 500ml		
1738061	PRAIRIE_AUK_TP146C 1.00 SOIL	14/04/20	PT 500ml		
1738062	PRAIRIE_AUK_TP162 0.70 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738063	PRAIRIE_AUK_TP162 3.10 SOIL	14/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738064	PRAIRIE_AUK_TP163 1.60 SOIL	14/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738065	PRAIRIE_AUK_TP165 1.50 SOIL	15/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738066	PRAIRIE_AUK_TP165 2.50 SOIL	15/04/20	PT 500ml		
1738067	PRAIRIE_AUK_TP173 0.60 SOIL	09/04/20	PT 500ml	Anions 2:1 (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1738068	PRAIRIE_AUK_TP176 1.50 SOIL	07/04/20	PT 500ml	Anions 2:1 (30 days), Organic Matter (Manual) (28 days), pH + Conductivity (7 days)	
1738069	PRAIRIE_AUK_TP178 0.40 SOIL	06/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738070	PRAIRIE_AUK_TP178 1.60 SOIL	06/04/20	PT 500ml	Organic Matter (Manual) (28 days)	
1738071	PRAIRIE_AUK_TP179 0.20 SOIL	09/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738072	PRAIRIE_AUK_TP182 0.30 SOIL	09/04/20	PT 500ml		
1738073	PRAIRIE_AUK_TP188 0.40 SOIL	08/04/20	PT 500ml	Anions 2:1 (30 days), pH + Conductivity (7 days)	
1738074	PRAIRIE_AUK_TP189 0.30 SOIL	07/04/20	PT 500ml		
1738075	PRAIRIE_AUK_TP189 1.40 SOIL	07/04/20	PT 500ml	Anions 2:1 (30 days), Organic Matter (Manual) (28 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 the 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 container(s) 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 deviation(s). 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.

Information in Support of the Analytical Results

Our Ref 20-19447
Client Ref 4251
Contract Prairie Site Ground Investigation Works

Soil Analysis Notes

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um 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

LABORATORY TESTING ENCLOSURE 6

Determination of Dry Density/Moisture Content Relationship

ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No - **PRAIRIE_AUK_BH107** Depth (m) - **4.00** Sample Type & No - **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **17.0**

Particle Density (Assumed) = **2.70**

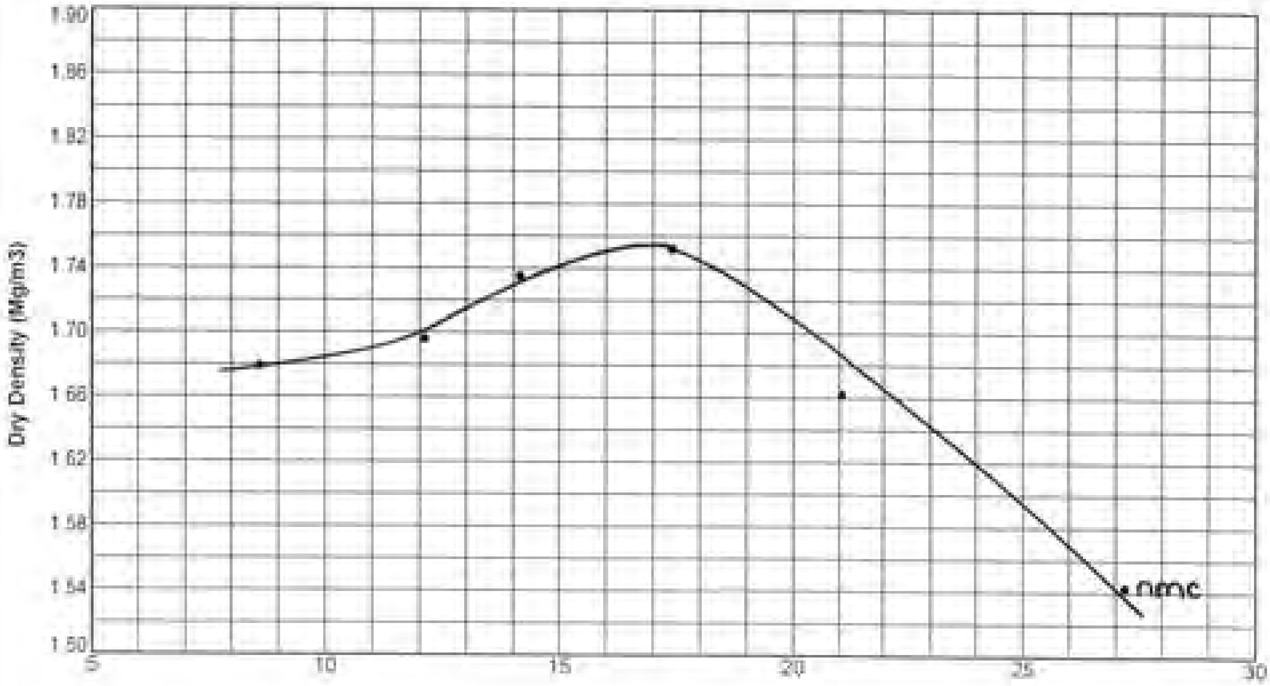
Maximum Dry Density (Mg/m3) = **1.75**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **14/07/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title - Prairie Site Ground Investigation Works	Client - South Tees Development Corporation

Signed -	Name -	Page 1 of 1
Date of issue - 31/07/2020	Certificate No - COMP/4251/1	AEG Contract No - 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_BH109** Depth (m) :- **2.00** Sample Type & No :- **B10**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **18.0**

Particle Density (Assumed) = **2.70**

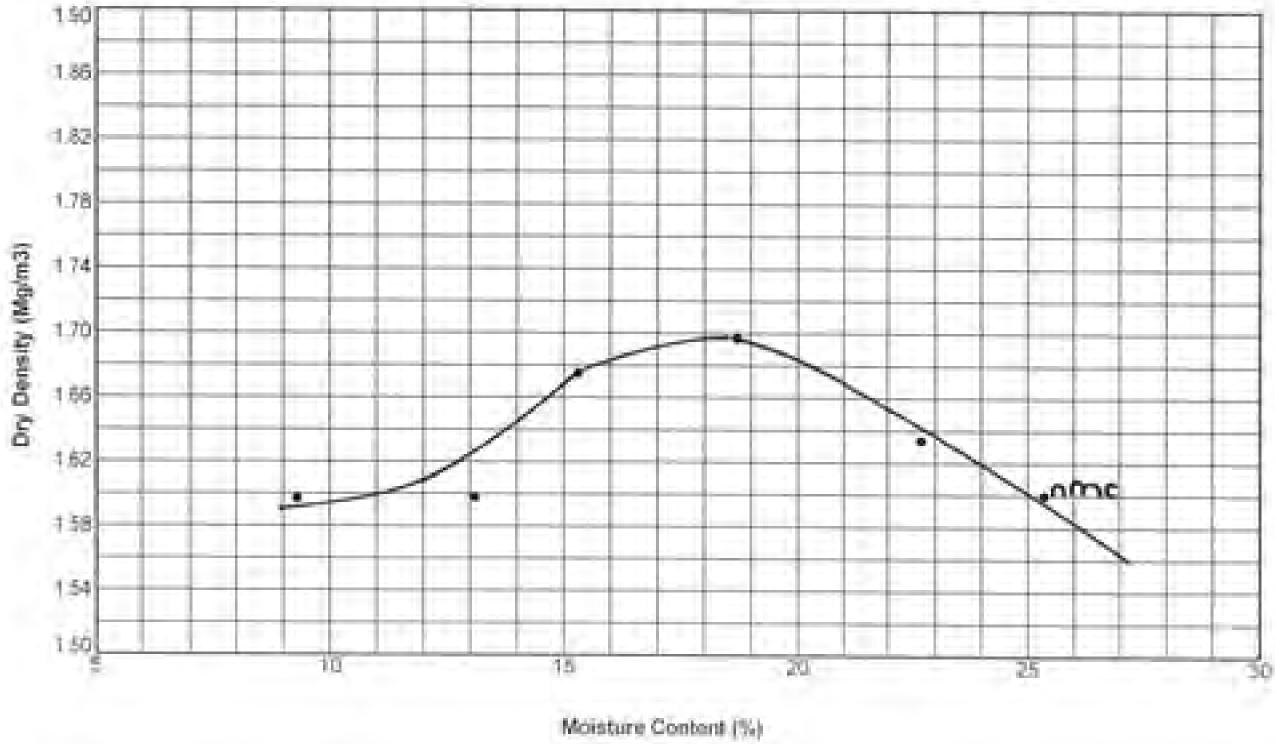
Maximum Dry Density (Mg/m3) = **1.70**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **14/07/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
Date of issue :- 31/07/2020	Certificate No :- CDMR/4251/1	AEG Contract No :- 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_BH110** Depth (m) :- **6.50** Sample Type & No :- **B10**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **15.0**

Particle Density (Assumed) = **2.70**

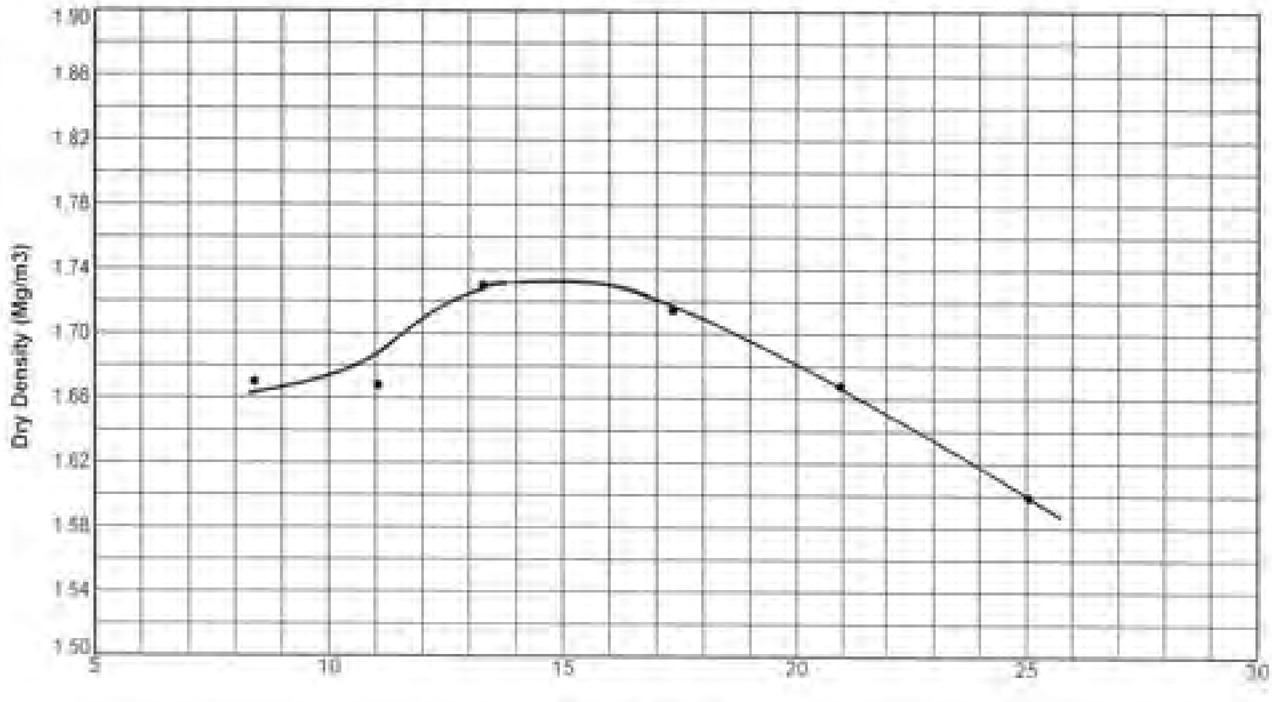
Maximum Dry Density (Mg/m3) = **1.73**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **14/07/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
Date of issue :- 31/07/2020	Certificate No :- COMP/4251/1	AEG Contract No :- 4251

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP101** Depth (m) :- **0.90** Sample Type & No :- **B4**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **16.5**

Particle Density (Assumed) = **2.55**

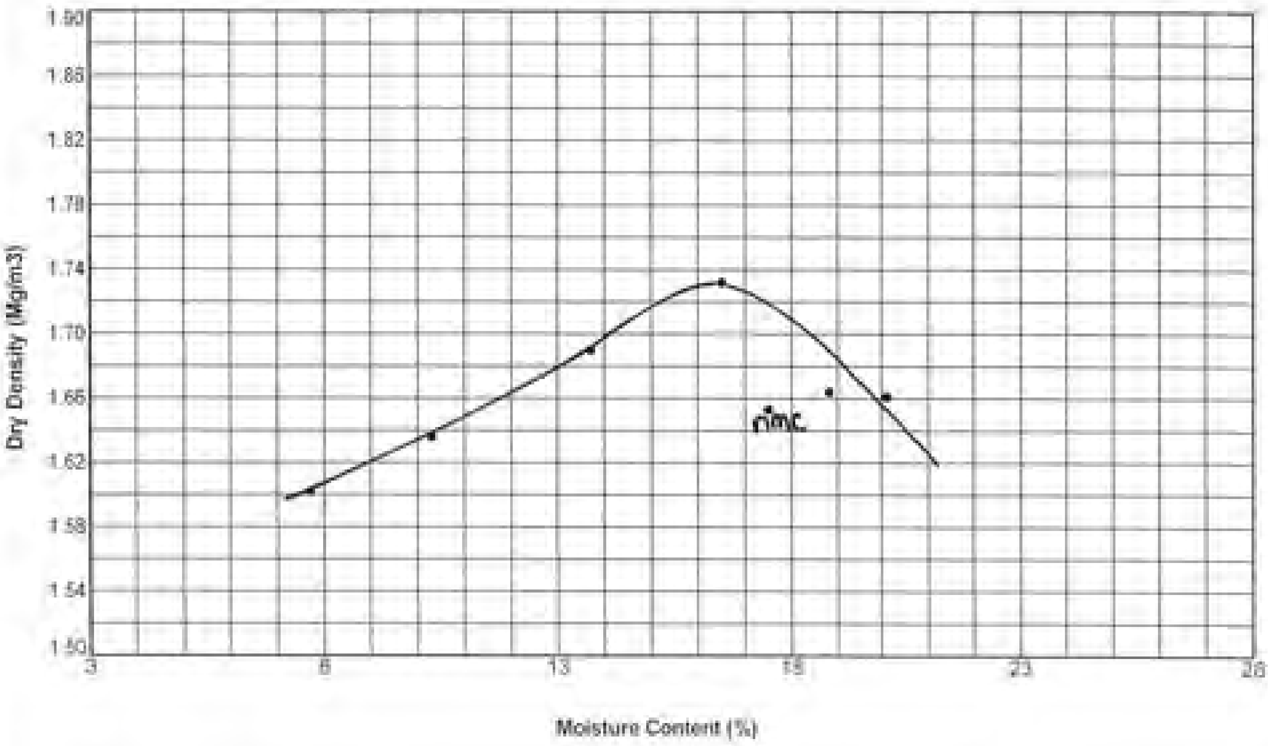
Maximum Dry Density (Mg/m3) = **1.73**

Retained on 20mm Sieve (%) = **32.0**

Date Tested = **01/10/2020**

Retained on 37.5mm Sieve (%) = **17.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-		Page 1 of 1
Date of issue :- 02/11/2020	Certificate No :- COMR/4251/1	AEG Contract No. :- **4251**	UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

[illegible]

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP105** Depth (m) :- **2.00** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **17.0**

Particle Density (Assumed) = **2.65**

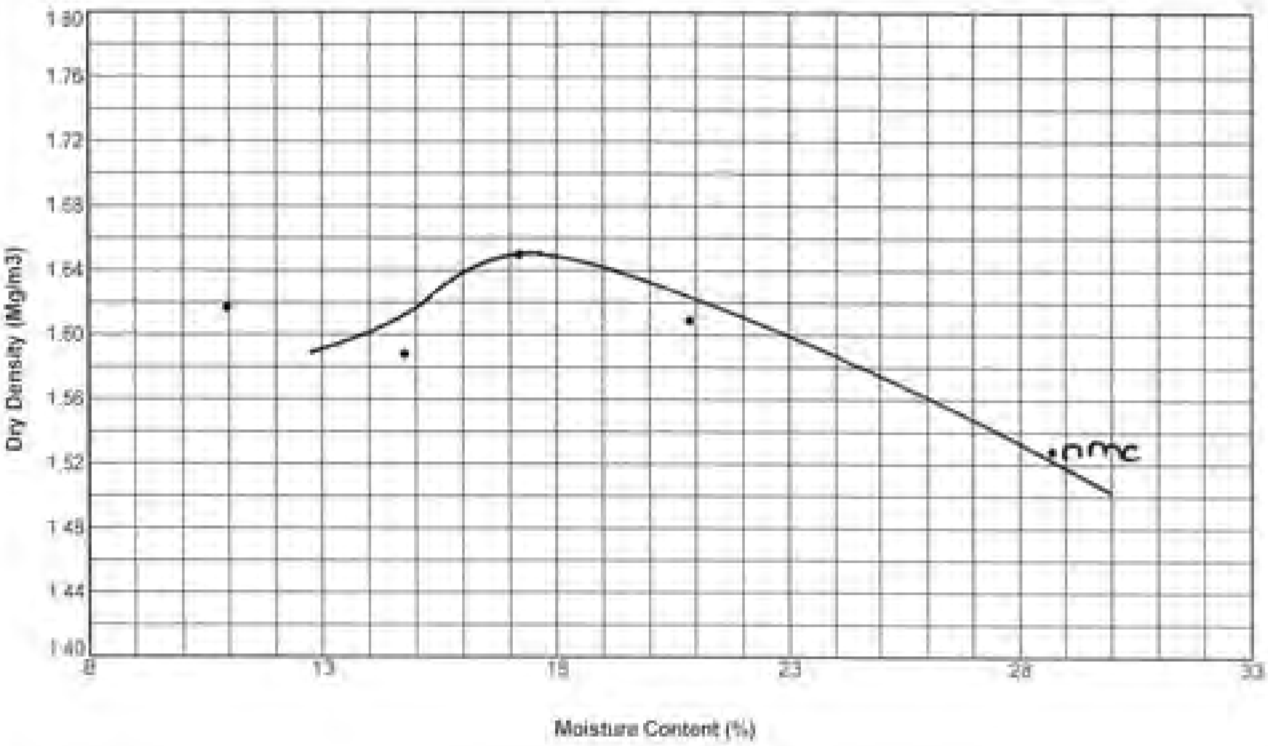
Maximum Dry Density (Mg/m3) = **1.65**

Retained on 20mm Sieve (%) = **2.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP107** Depth (m) :- **1.00** Sample Type & No :- **B4**

Test Method 2.5kg Compaction Single Sample

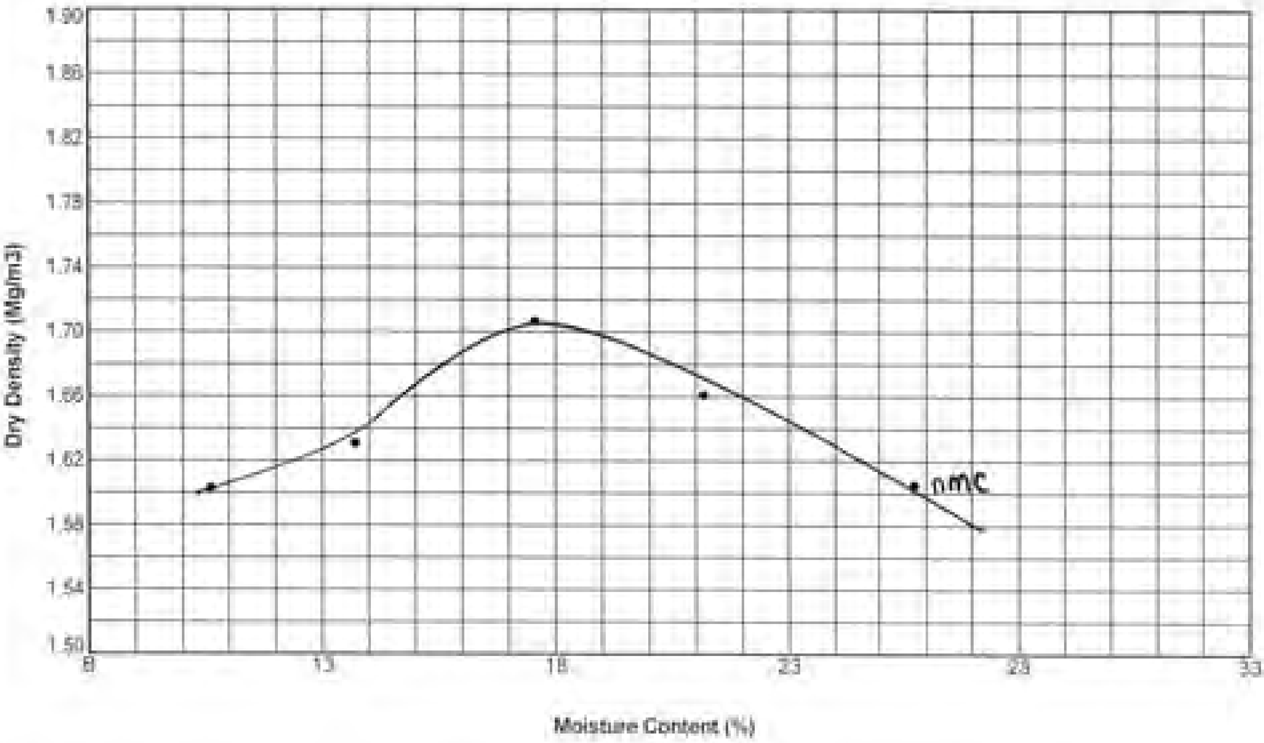
Test Results

Optimum Moisture Content (%) = **17.5** Particle Density (Assumed) = **2.70**

Maximum Dry Density (Mg/m3) = **1.71** Retained on 20mm Sieve (%) = **5.0**

Date Tested = **30/09/2020** Retained on 37.5mm Sieve (%) = **4.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP110** Depth (m) :- **3.00** Sample Type & No :- **B8**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **21.0**

Particle Density (Assumed) = **2.65**

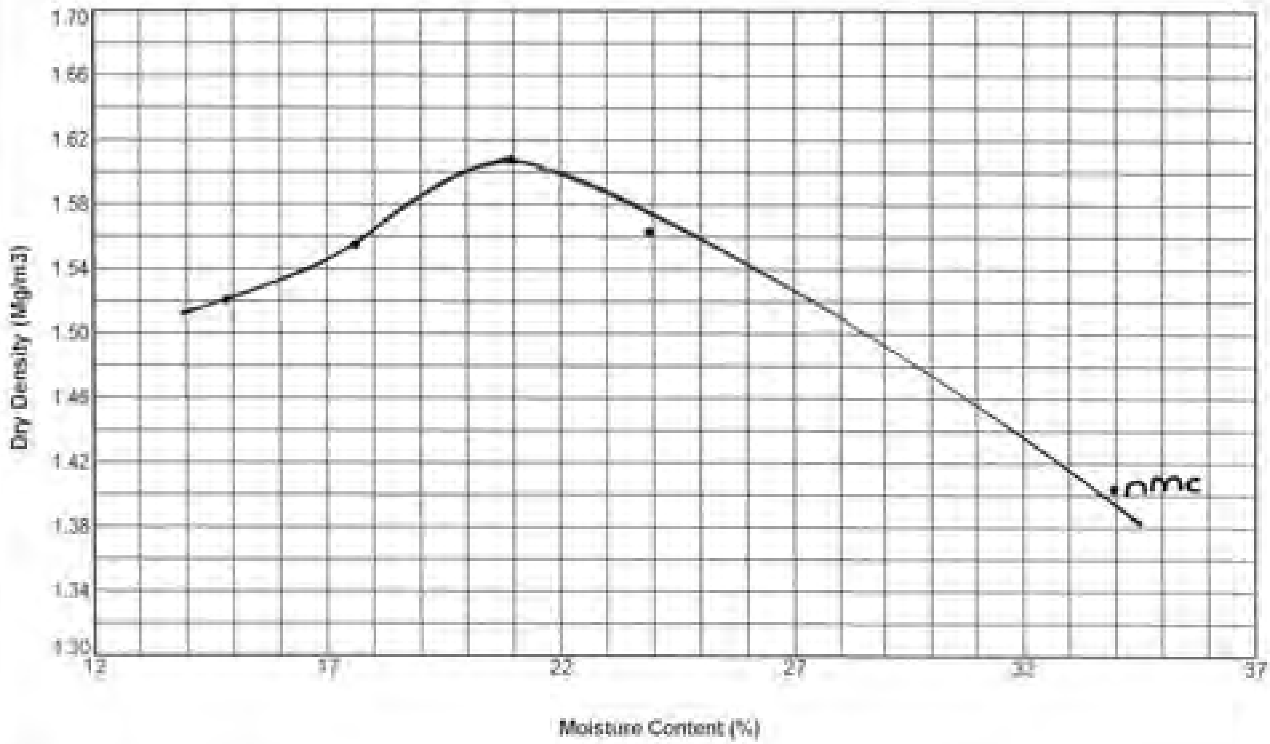
Maximum Dry Density (Mg/m3) = **1.60**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **16/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP112** Depth (m) :- **1.70** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **20.5**

Particle Density (Assumed) = **2.35**

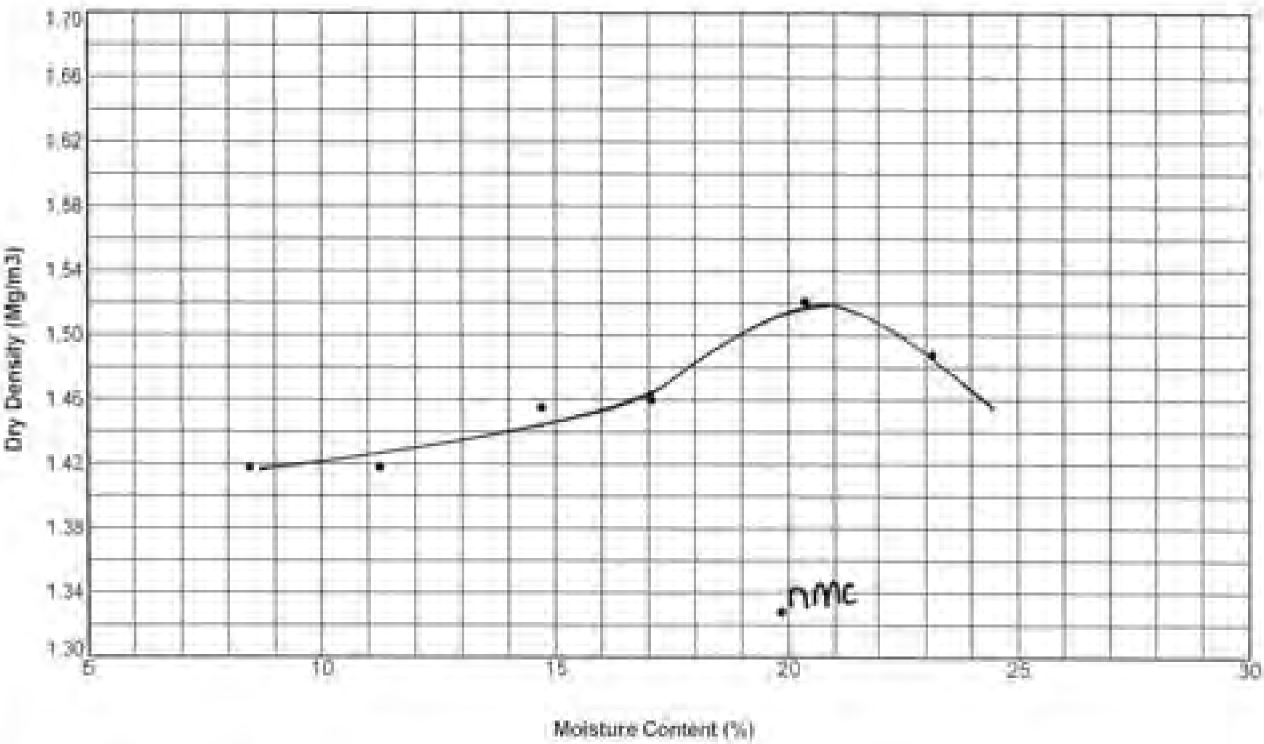
Maximum Dry Density (Mg/m3) = **1.52**

Retained on 20mm Sieve (%) = **28.0**

Date Tested = **19/10/2020**

Retained on 37.5mm Sieve (%) = **10.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP112** Depth (m) :- **3.20** Sample Type & No :- **B11**

Test Method 2.5kg Compaction Separate Samples

Test Results

Optimum Moisture Content (%) = **16.5**

Particle Density (Assumed) = **2.65**

Maximum Dry Density (Mg/m3) = **1.70**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **16/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :

For description of sample please refer to the Laboratory Sample Description Sheet

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Date of Issue :- 02/11/2020	Certificate No :- COMP/4251/1	AEG Contract No :- 4251

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP113** Depth (m) - **2.80** Sample Type & No :- **B8**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **19.5**

Particle Density (Assumed) = **2.75**

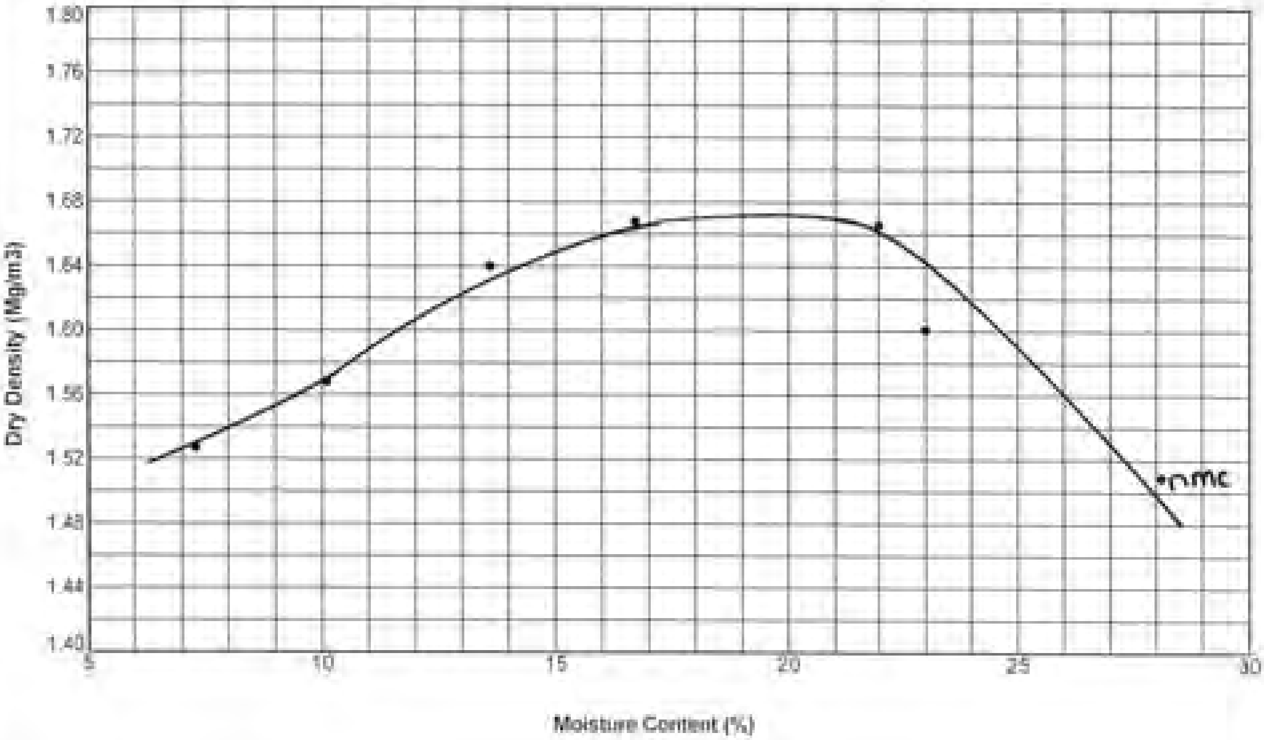
Maximum Dry Density (Mg/m3) = **1.67**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP116** Depth (m) :- **2.50** Sample Type & No :- **B8**

Test Method 2.5kg Compaction Single Sample

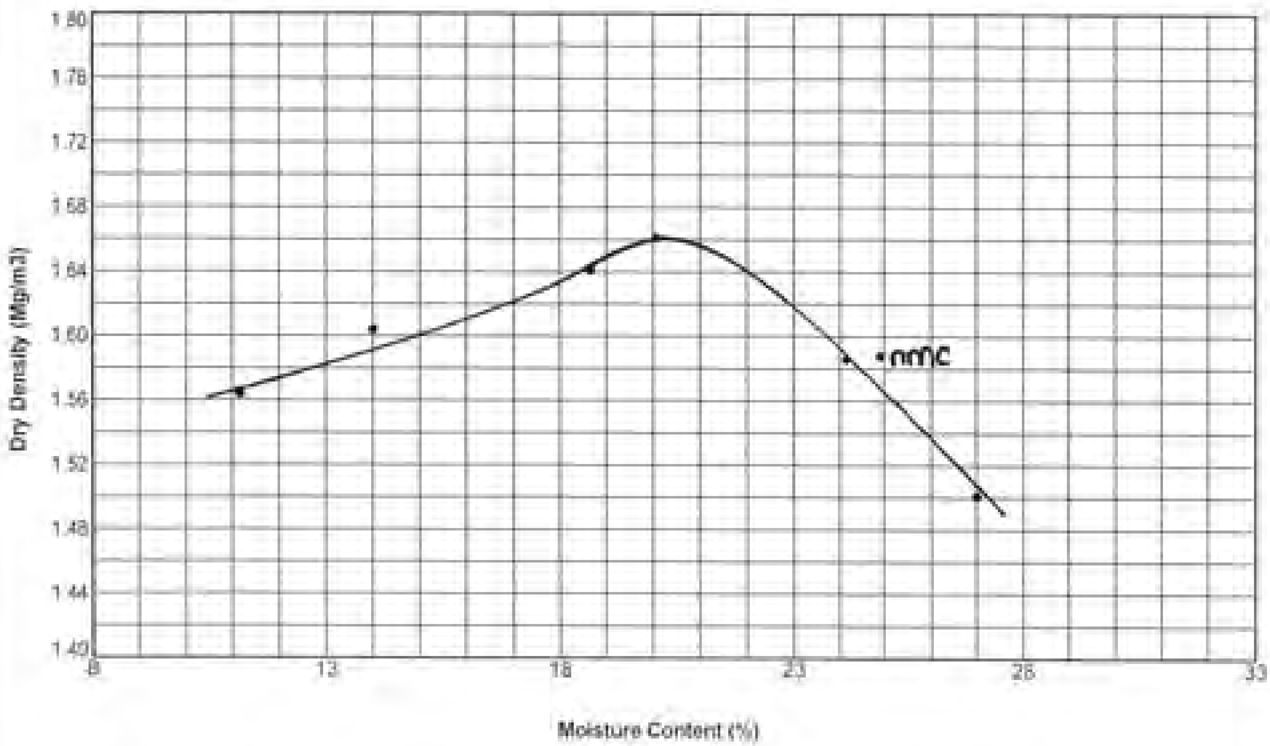
Test Results

Optimum Moisture Content (%) = **20.0** Particle Density (Assumed) = **2.65**

Maximum Dry Density (Mg/m3) = **1.65** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **16/10/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP
BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP116** Depth (m) :- **3.50** Sample Type & No :- **B10**

Test Method 2.5kg Compaction Separate Samples

Test Results

Optimum Moisture Content (%) = **14.0**

Maximum Dry Density (Mg/m3) = **1.85**

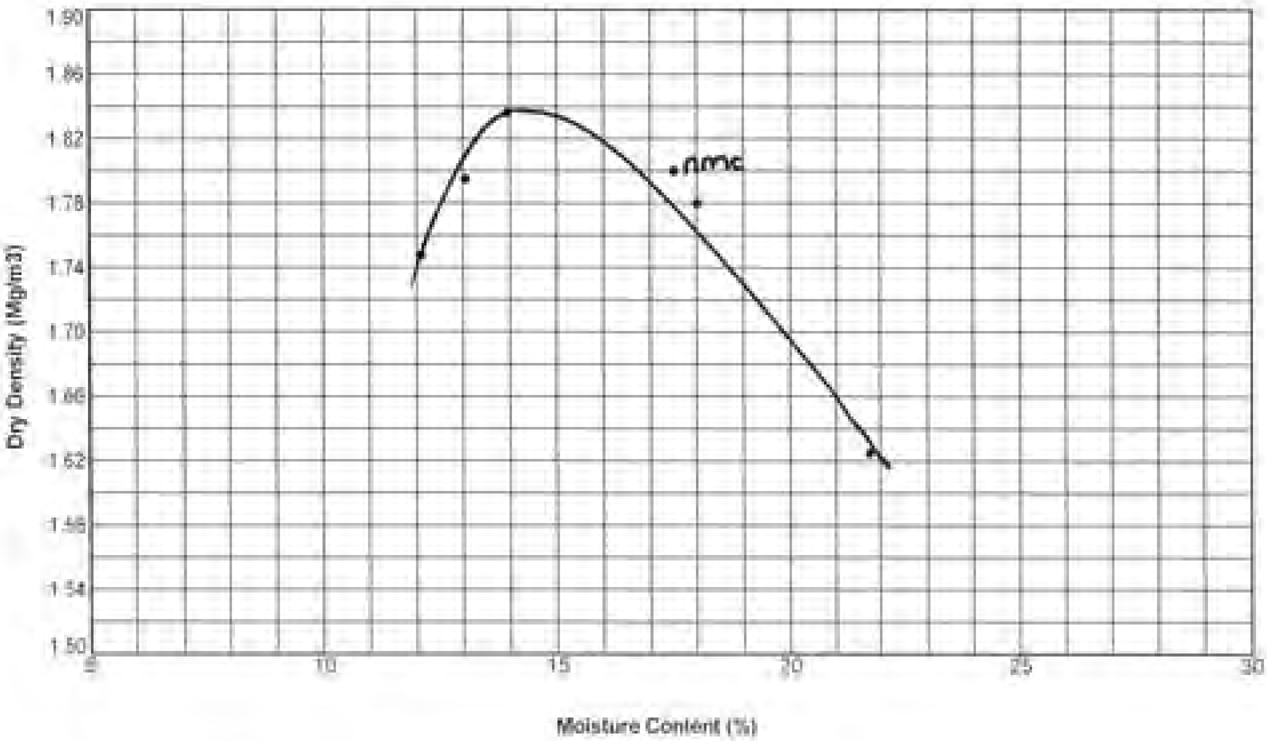
Date Tested = **19/10/2020**

Particle Density (Assumed) = **2.65**

Retained on 20mm Sieve (%) = **3.2**

Retained on 37.5mm Sieve (%) = **1.8**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP118** Depth (m) :- **2.50** Sample Type & No :- **B7**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **23.5**

Particle Density (Assumed) = **2.65**

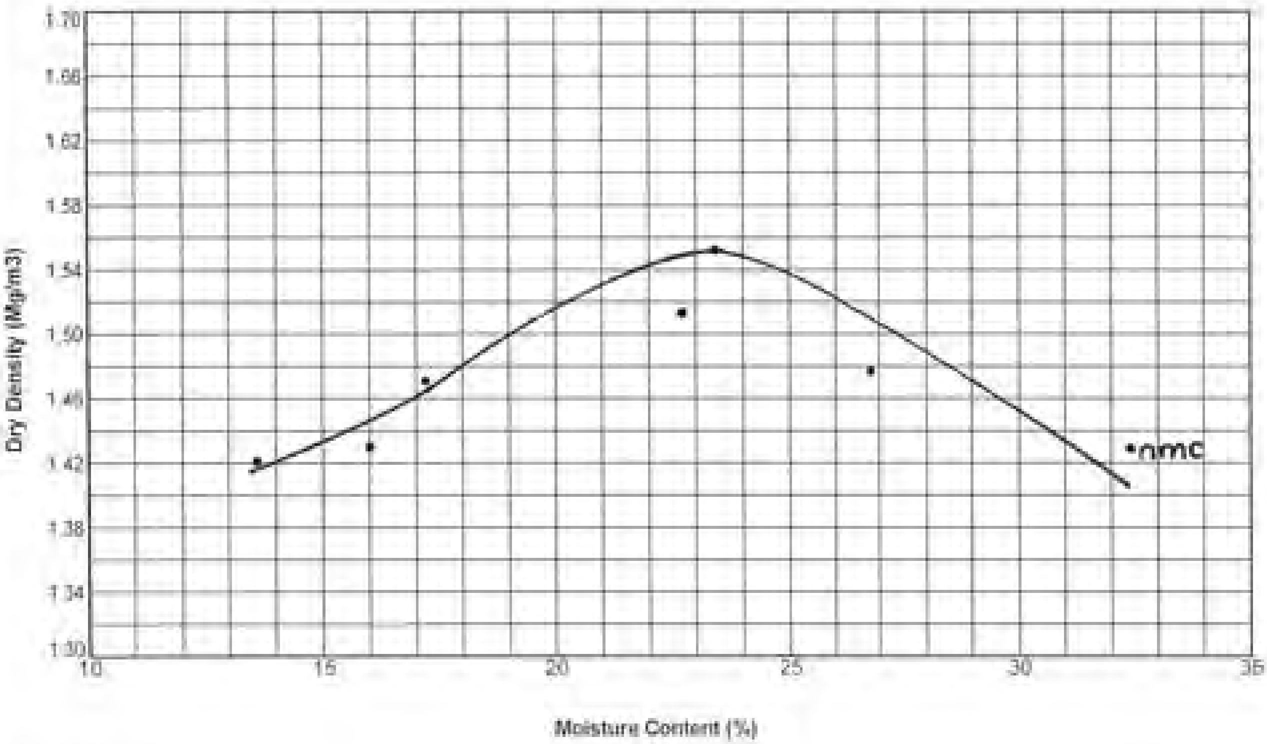
Maximum Dry Density (Mg/m3) = **1.55**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **19/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP119** Depth (m) :- **2.00** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

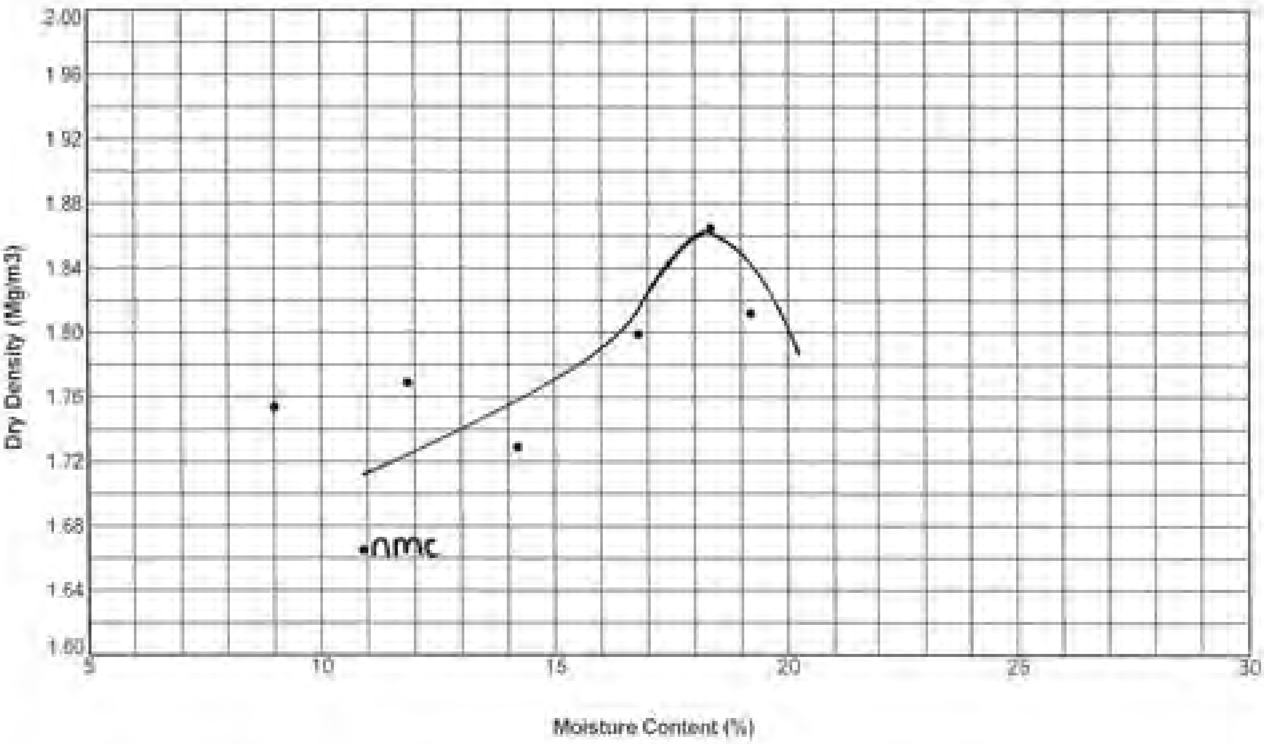
Test Results

Optimum Moisture Content (%) = **18.5** Particle Density (Assumed) = **2.85**

Maximum Dry Density (Mg/m3) = **1.87** Retained on 20mm Sieve (%) = **17.0**

Date Tested = **19/10/2020** Retained on 37.5mm Sieve (%) = **9.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP119** Depth (m) :- **3.00** Sample Type & No :- **B8**

Test Method 2.5kg Compaction Single Sample

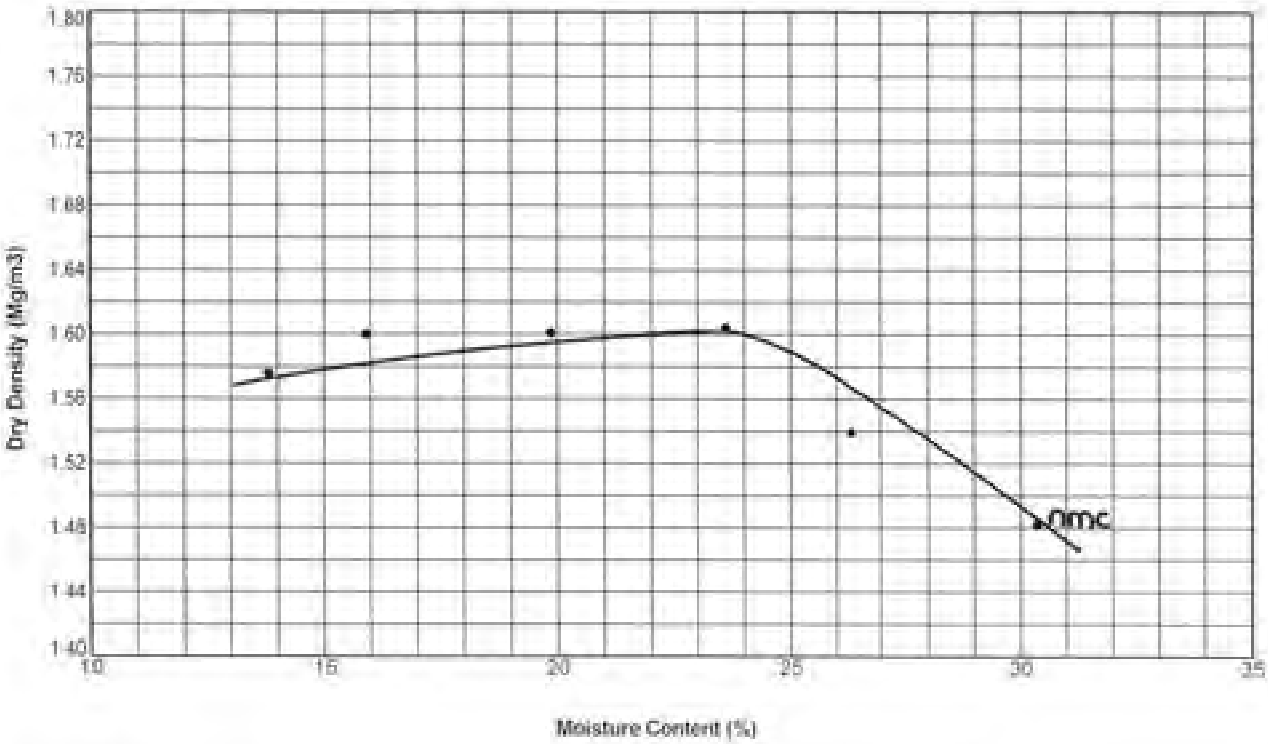
Test Results

Optimum Moisture Content (%) = **23.5** Particle Density (Assumed) = **2.70**

Maximum Dry Density (Mg/m3) = **1.60** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **16/10/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP
BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP120A** Depth (m) :- **1.80** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **20.0**

Particle Density (Assumed) = **2.65**

Maximum Dry Density (Mg/m3) = **1.67**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **15/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :

For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP121** Depth (m) :- **0.80** Sample Type & No :- **B2**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **14.0**

Particle Density (Assumed) = **2.75**

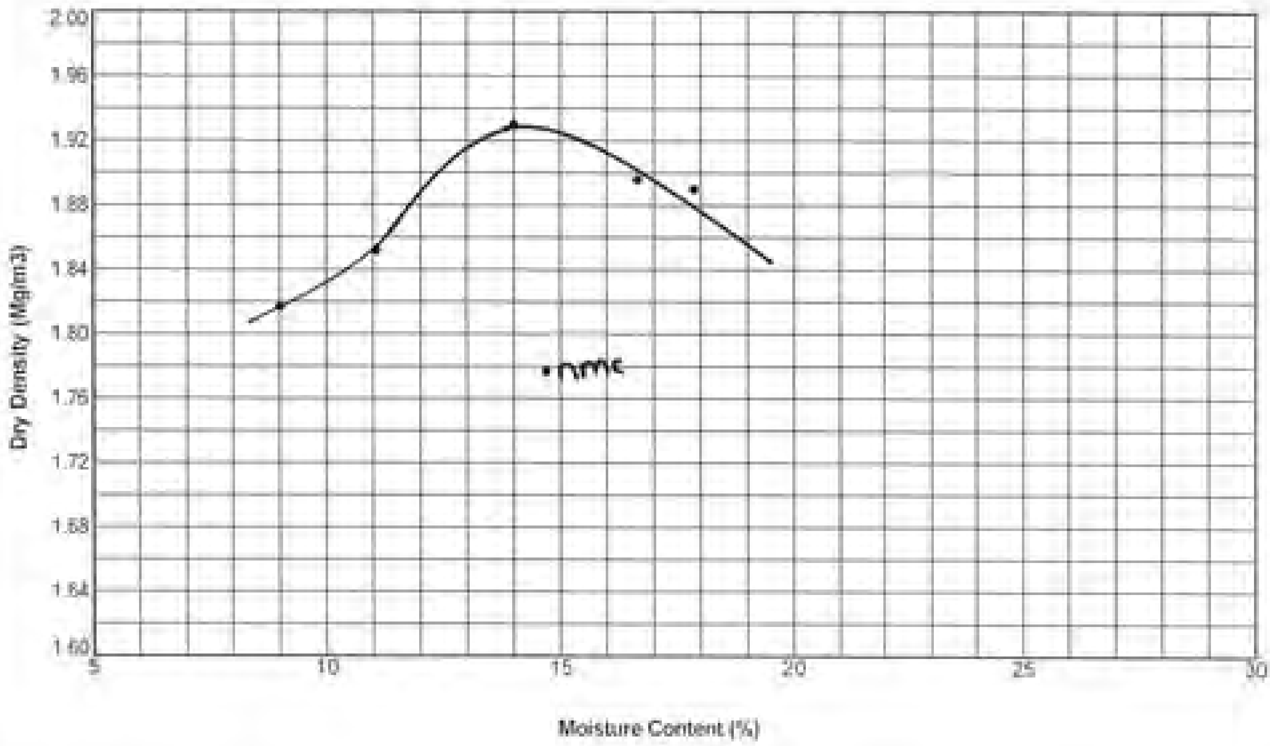
Maximum Dry Density (Mg/m3) = **1.93**

Retained on 20mm Sieve (%) = **1.0**

Date Tested = **01/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP
BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP124** Depth (m) :- **1.50** Sample Type & No :- **B4**

Test Method 2.5kg Compaction Single Sample

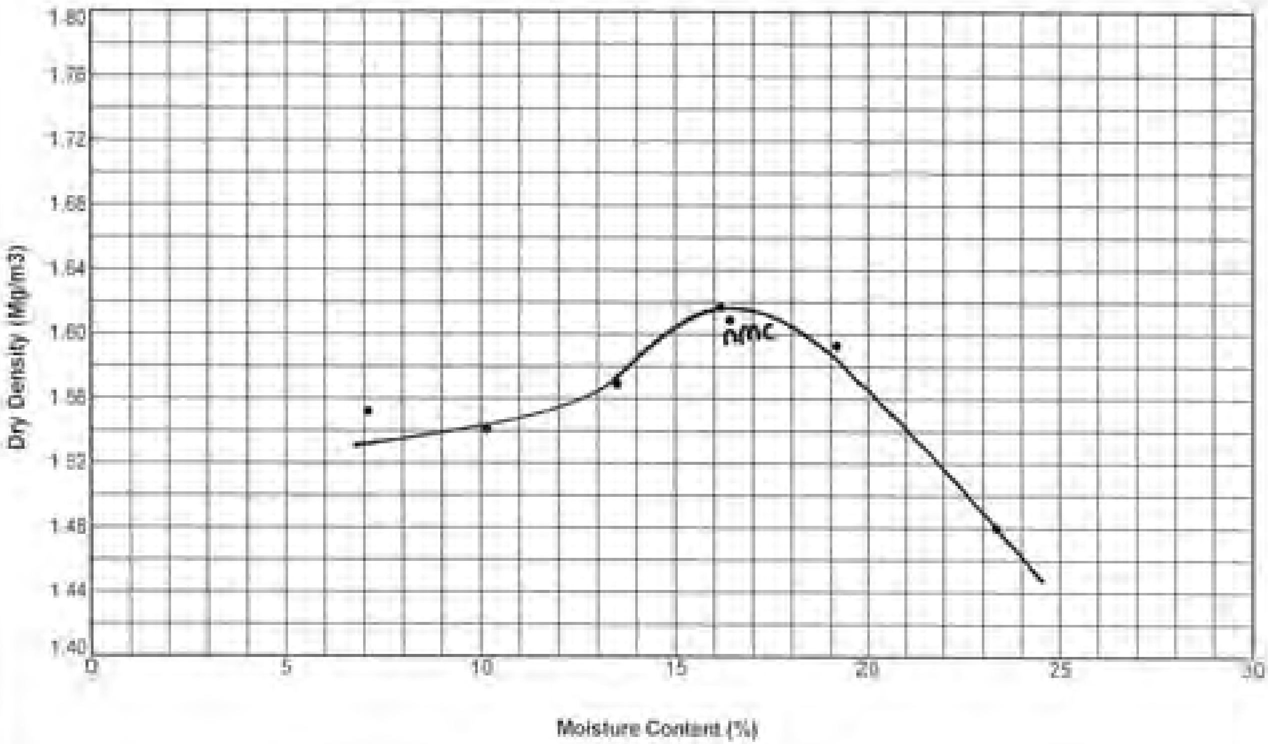
Test Results

Optimum Moisture Content (%) = **16.0** Particle Density (Assumed) = **2.55**

Maximum Dry Density (Mg/m3) = **1.62** Retained on 20mm Sieve (%) = **9.0**

Date Tested = **29/09/2020** Retained on 37.5mm Sieve (%) = **3.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP131** Depth (m) :- **3.80** Sample Type & No :- **B10**

Test Method 2.5kg Compaction Separate Samples

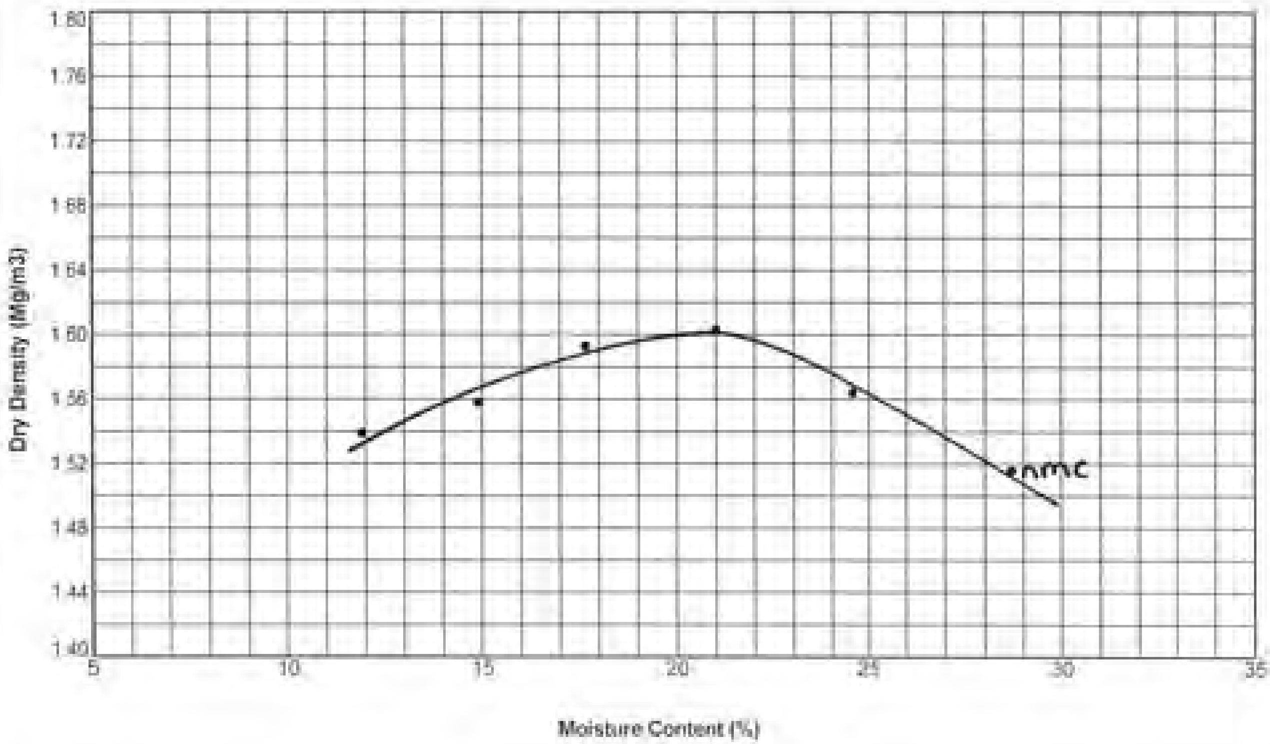
Test Results

Optimum Moisture Content (%) = **21.0** Particle Density (Assumed) = **2.75**

Maximum Dry Density (Mg/m3) = **1.60** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **01/10/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP137** Depth (m) :- **2.00** Sample Type & No :- **B7**

Test Method 2.5kg Compaction Separate Samples

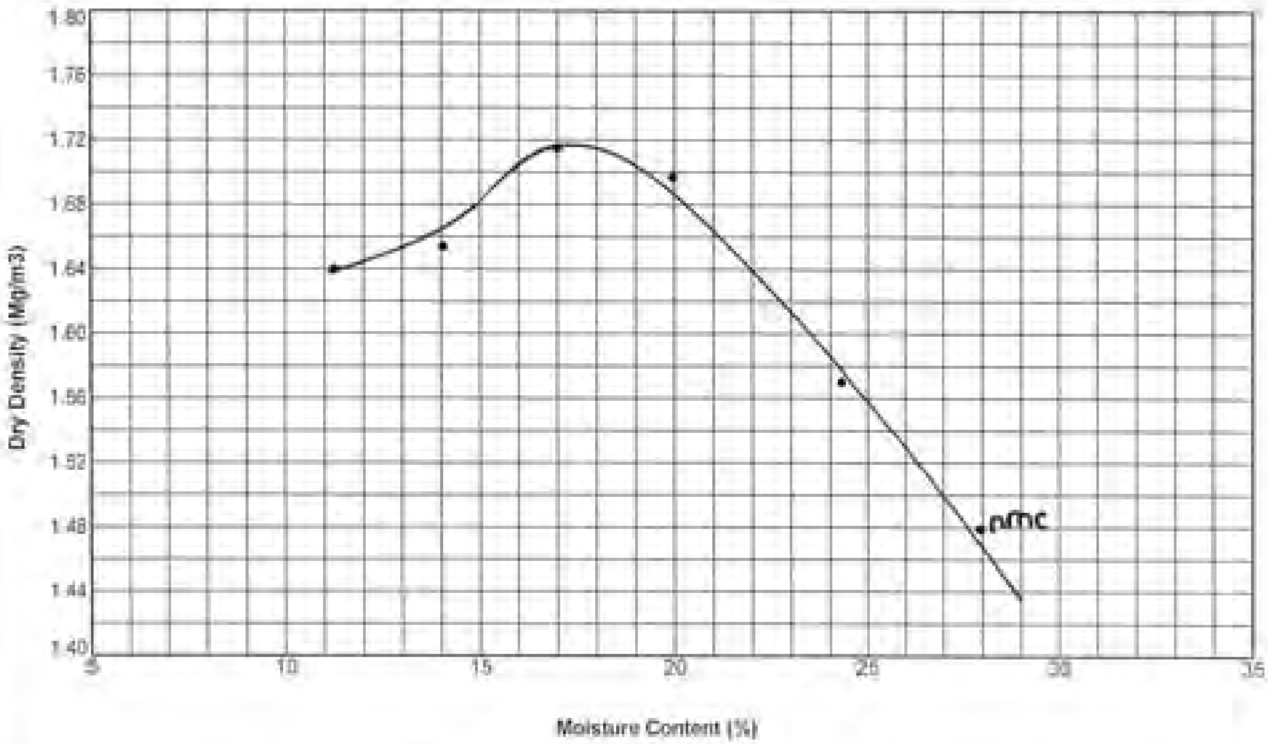
Test Results

Optimum Moisture Content (%) = **17.0** Particle Density (Assumed) = **2.65**

Maximum Dry Density (Mg/m3) = **1.70** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **15/10/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP145** Depth (m) :- **1.00** Sample Type & No :- **B3**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **17.5**

Particle Density (Assumed) = **2.55**

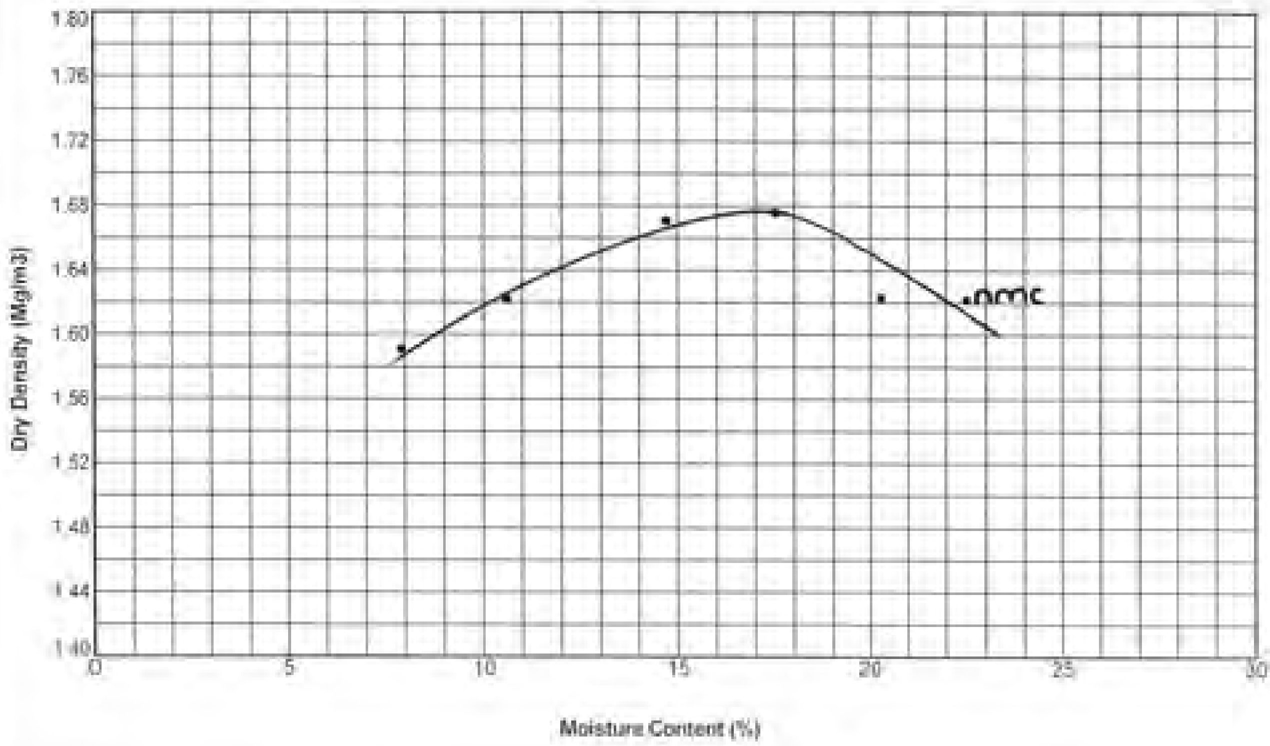
Maximum Dry Density (Mg/m3) = **1.68**

Retained on 20mm Sieve (%) = **19.0**

Date Tested = **29/09/2020**

Retained on 37.5mm Sieve (%) = **5.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP145** Depth (m) :- **2.40** Sample Type & No :- **B6**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **21.0**

Particle Density (Assumed) = **2.70**

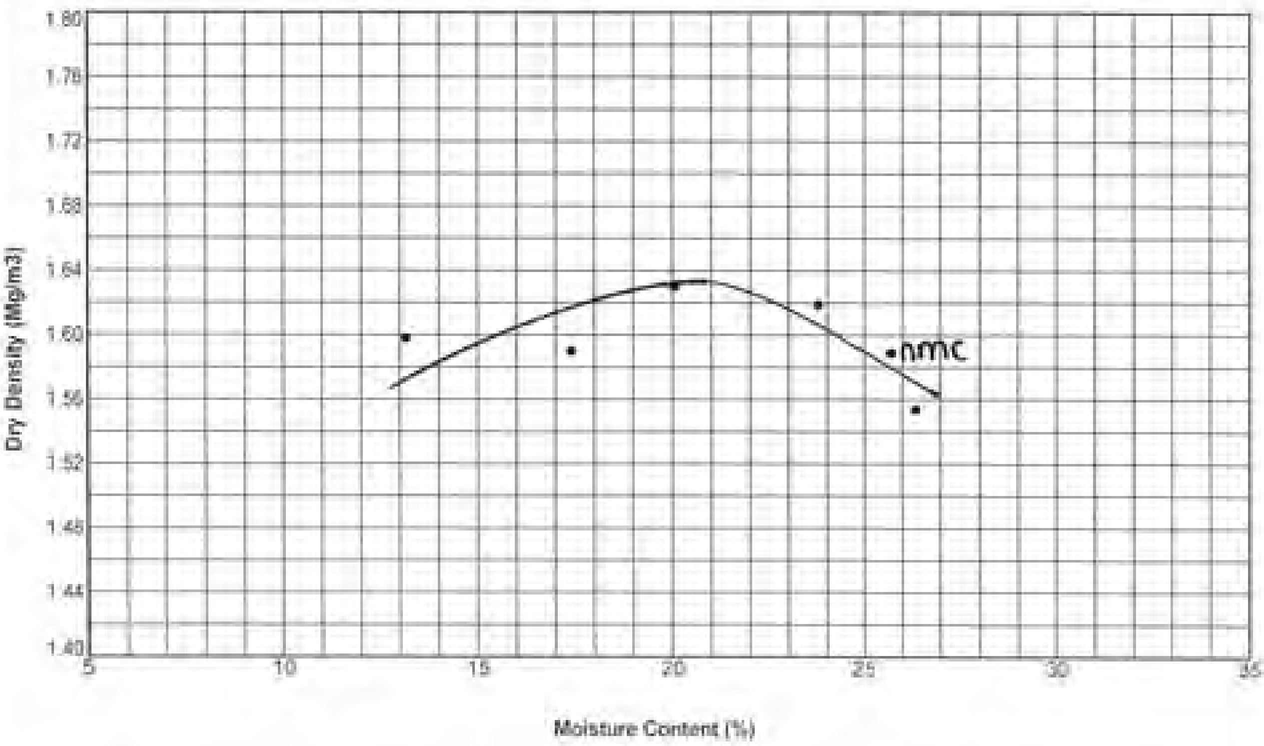
Maximum Dry Density (Mg/m3) = **1.63**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP146** Depth (m) :- **1.30** Sample Type & No :- **B6**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **17.5**

Particle Density (Assumed) = **2.65**

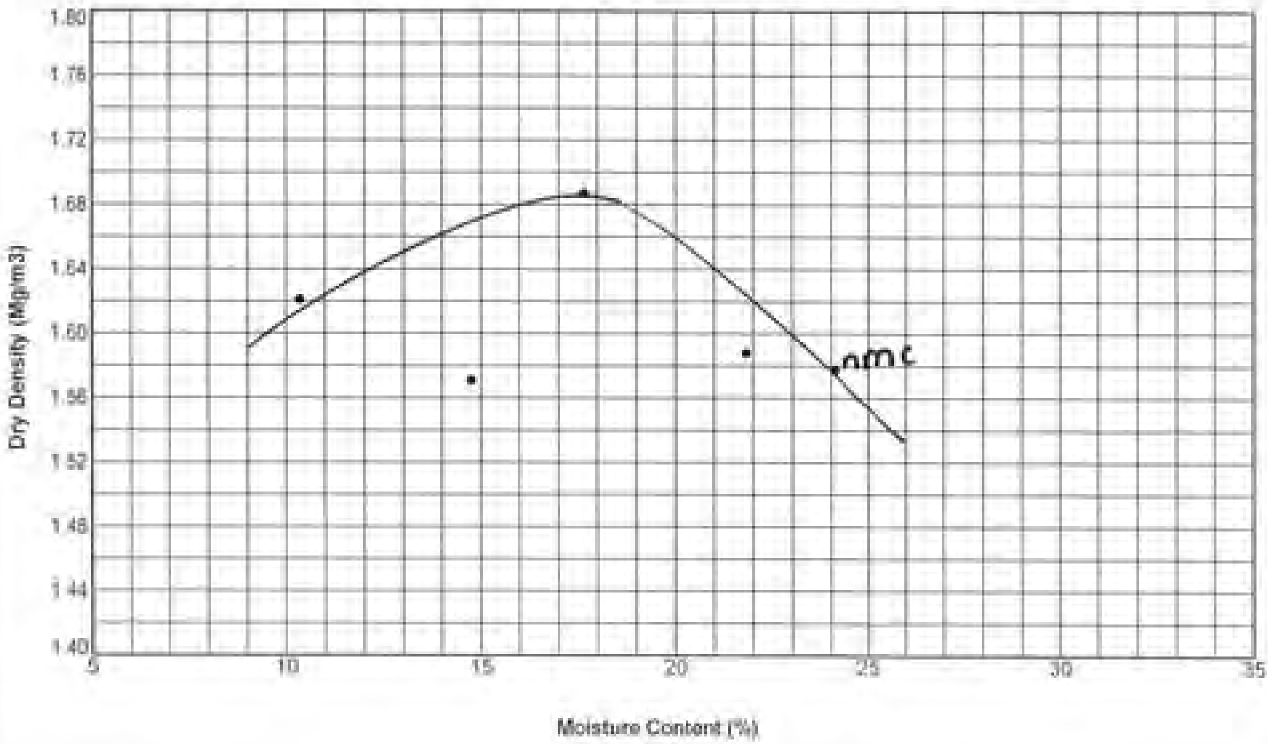
Maximum Dry Density (Mg/m3) = **1.69**

Retained on 20mm Sieve (%) = **14.0**

Date Tested = **02/10/2020**

Retained on 37.5mm Sieve (%) = **6.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation
Signed :- [signature]	Name :-
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BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP146** Depth (m) :- **2.30** Sample Type & No :- **B8**

Test Method 2.5kg Compaction Single Sample

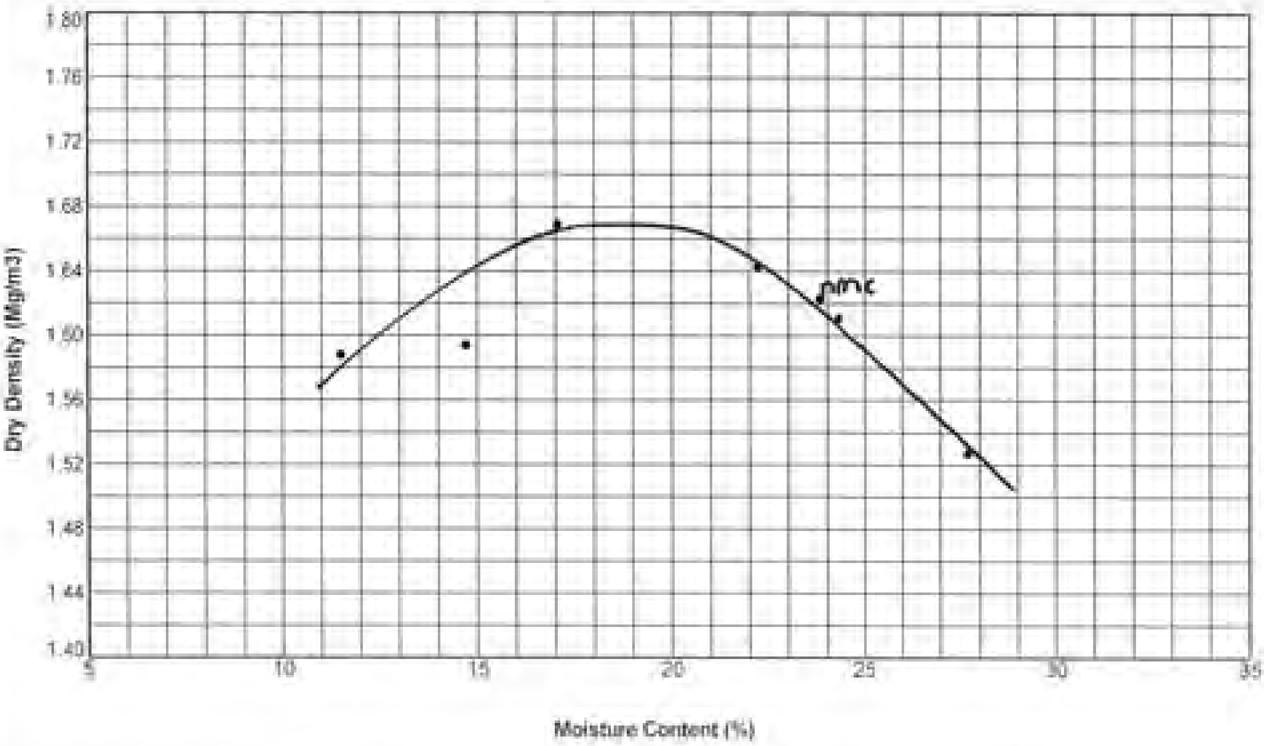
Test Results

Optimum Moisture Content (%) = **18.5** Particle Density (Assumed) = **2.70**

Maximum Dry Density (Mg/m3) = **1.67** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **01/10/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP149** Depth (m) :- **2.20** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

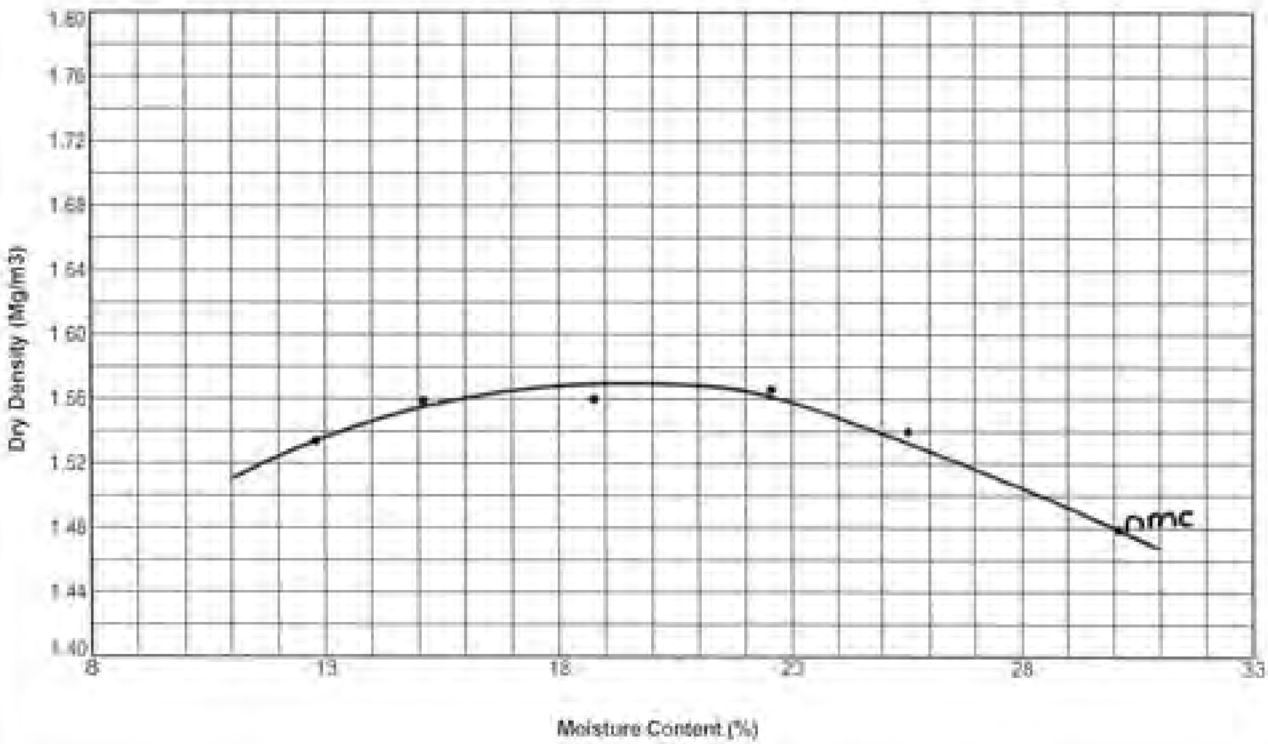
Test Results

Optimum Moisture Content (%) = **22.5** Particle Density (Assumed) = **2.70**

Maximum Dry Density (Mg/m3) = **1.57** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **16/10/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP154** Depth (m) :- **1.60** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **24.0**

Particle Density (Assumed) = **2.70**

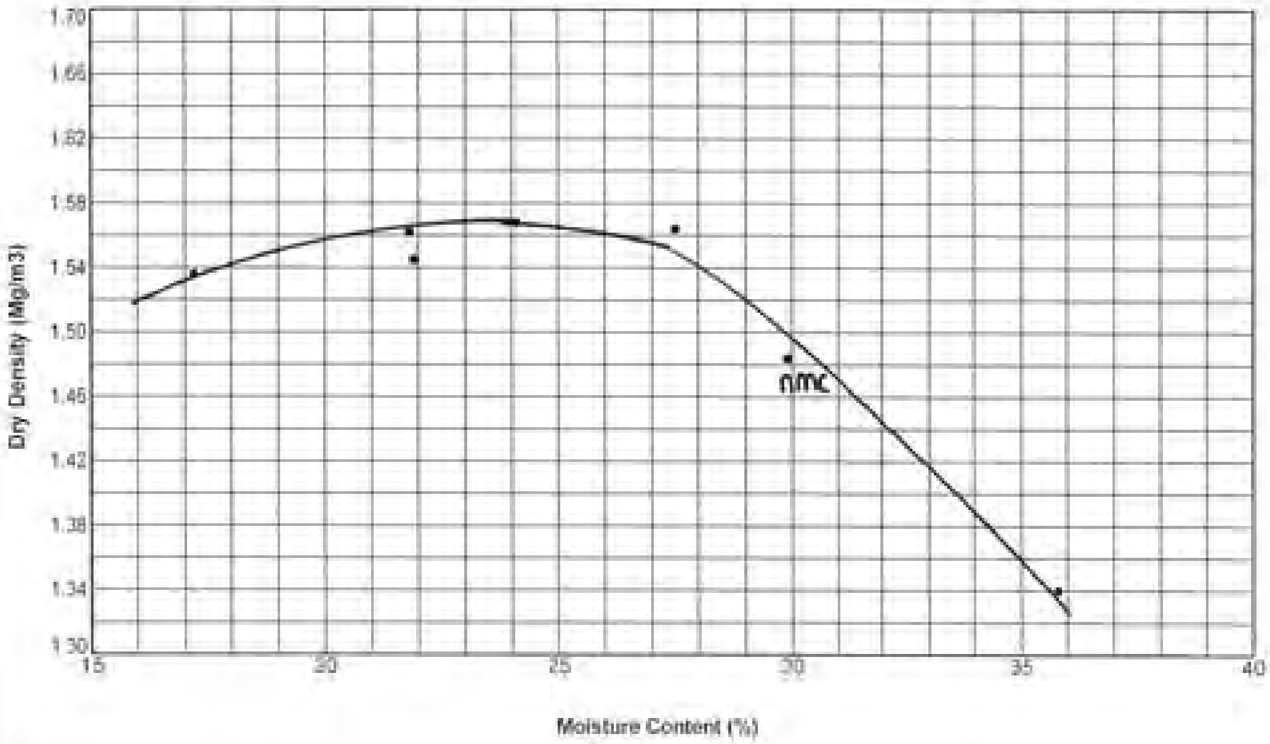
Maximum Dry Density (Mg/m3) = **1.57**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **20/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
Date of issue :- 02/11/2020	Certificate No :- COMP/4251/1	AEG Contract No :- 4251

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP162** Depth (m) :- **2.50** Sample Type & No :- **B6**

Test Method 2.5kg Compaction Single Sample

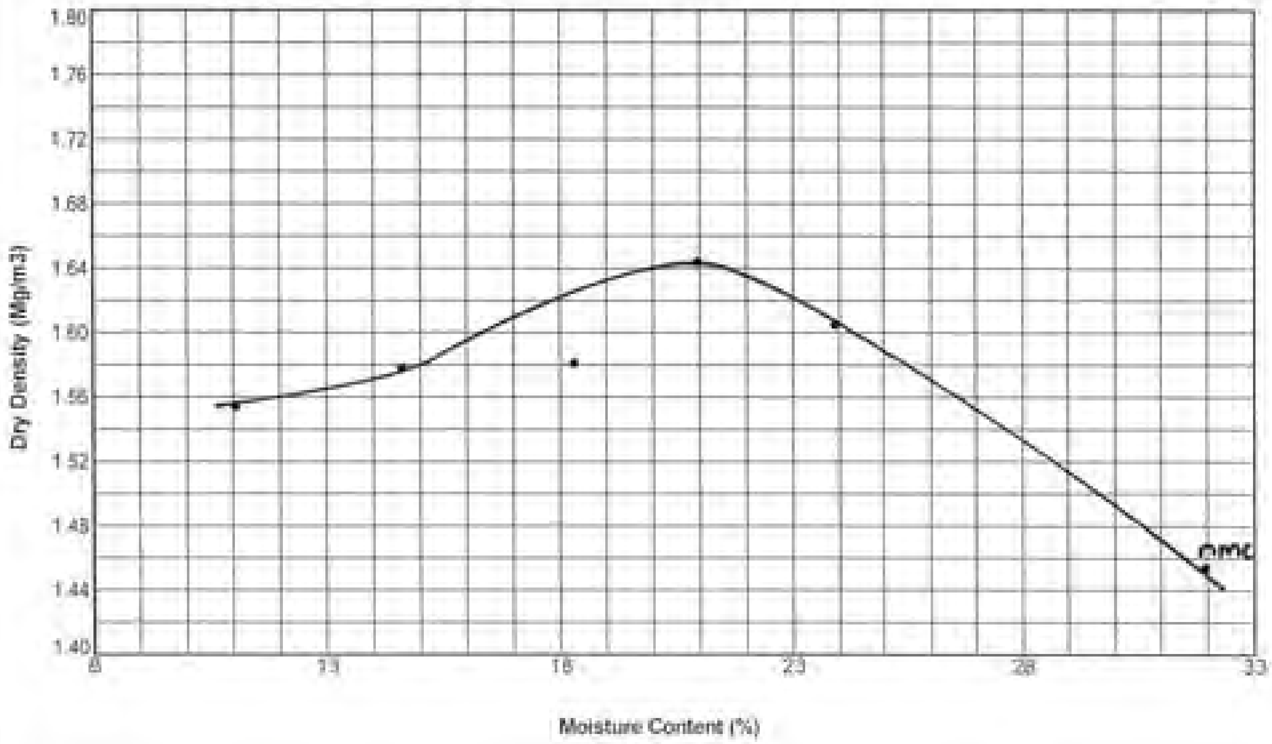
Test Results

Optimum Moisture Content (%) = **21.0** Particle Density (Assumed) = **2.75**

Maximum Dry Density (Mg/m3) = **1.64** Retained on 20mm Sieve (%) = **0.0**

Date Tested = **29/09/2020** Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP163** Depth (m) :- **0.80** Sample Type & No :- **B2**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **18.0**

Particle Density (Assumed) = **1.70**

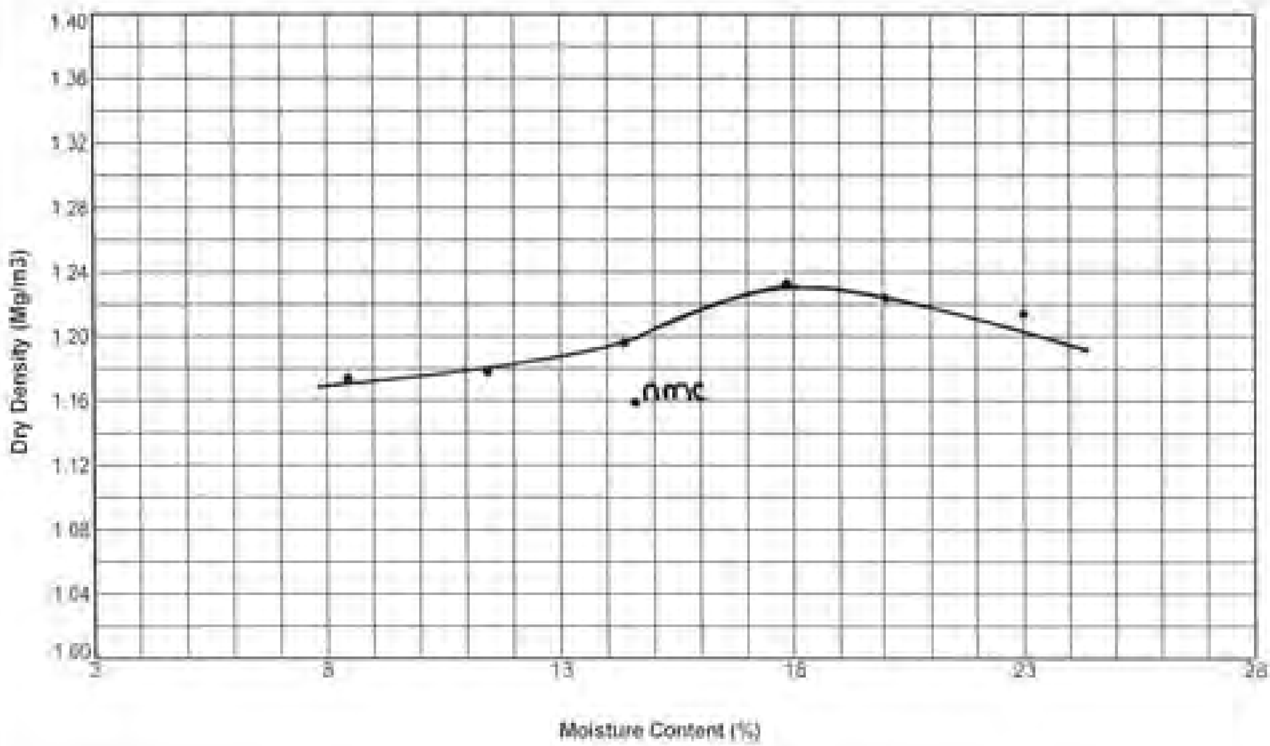
Maximum Dry Density (Mg/m3) = **1.23**

Retained on 20mm Sieve (%) = **14.0**

Date Tested = **05/10/2020**

Retained on 37.5mm Sieve (%) = **1.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP163** Depth (m) :- **1.70** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Separate Samples

Test Results

Optimum Moisture Content (%) = **18.3**

Particle Density (Assumed) = **2.75**

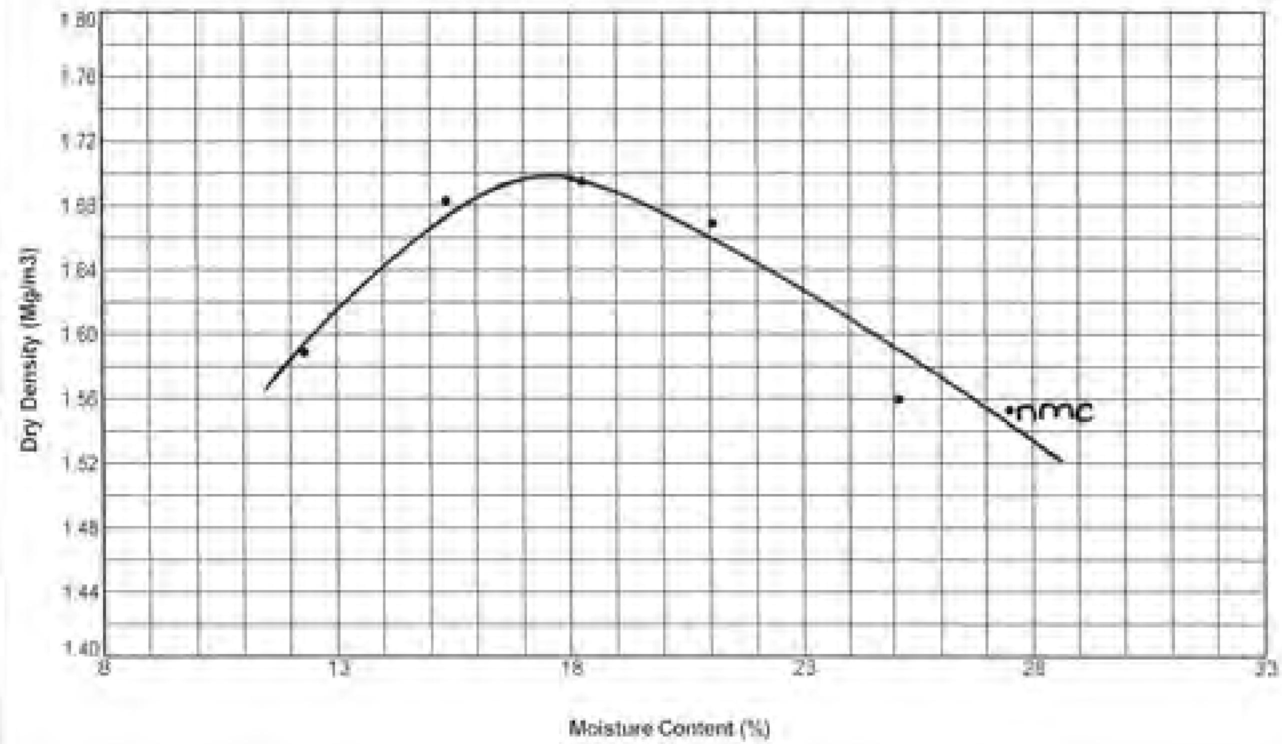
Maximum Dry Density (Mg/m3) = **1.70**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **01/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :-

Name :-

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP168** Depth (m) :- **1.60** Sample Type & No :- **B7**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **24.0**

Particle Density (Assumed) = **2.70**

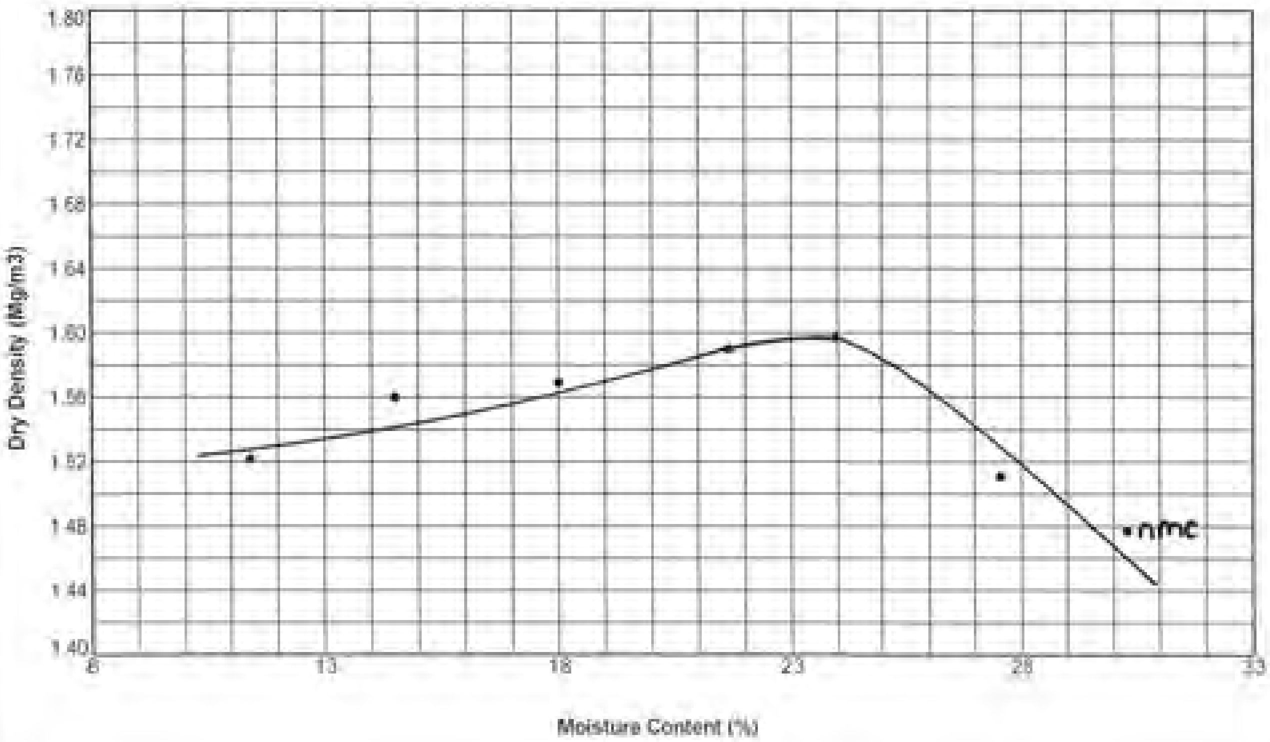
Maximum Dry Density (Mg/m3) = **1.60**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **01/10/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP173** Depth (m) :- **0.80** Sample Type & No :- **B2**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **18.0**

Particle Density (Assumed) = **2.55**

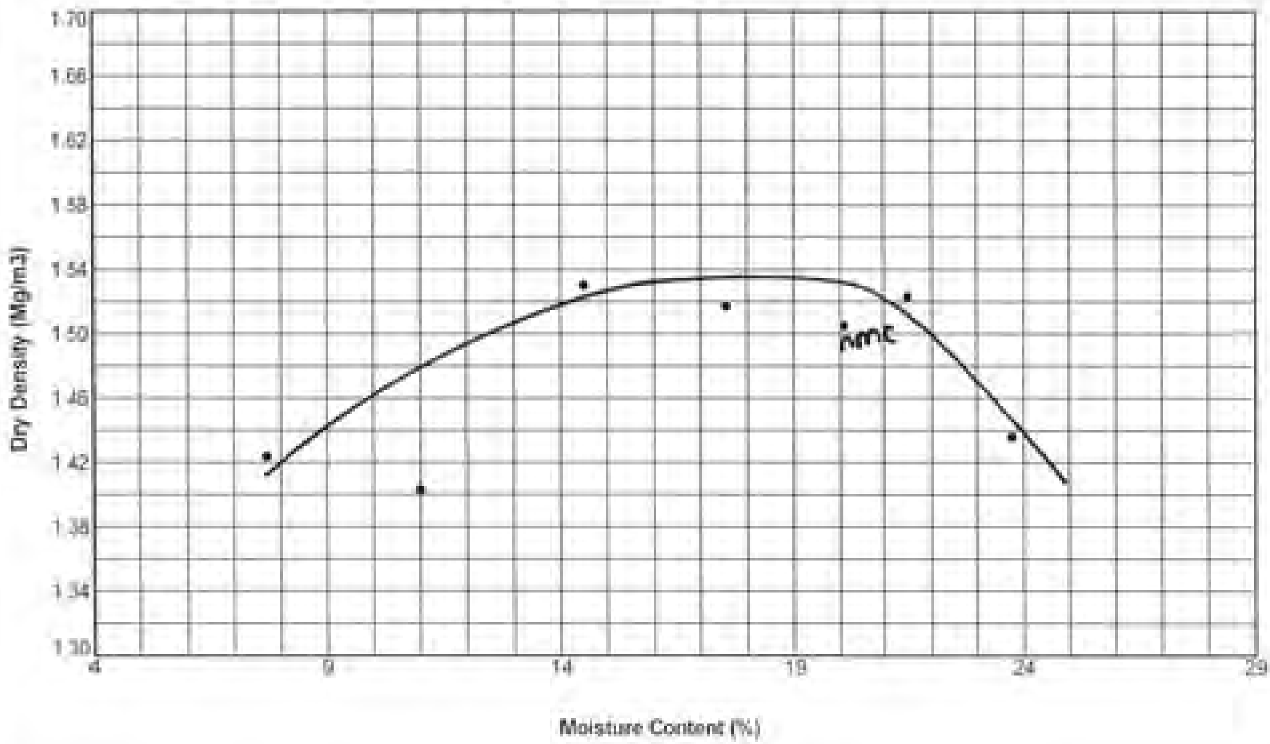
Maximum Dry Density (Mg/m3) = **1.53**

Retained on 20mm Sieve (%) = **22.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **8.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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Date of issue :- 02/11/2020	Certificate No :- COMP/4251/1	AEG Contract No :- 4251

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP176** Depth (m) :- **2.00** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **18.0**

Particle Density (Assumed) = **2.70**

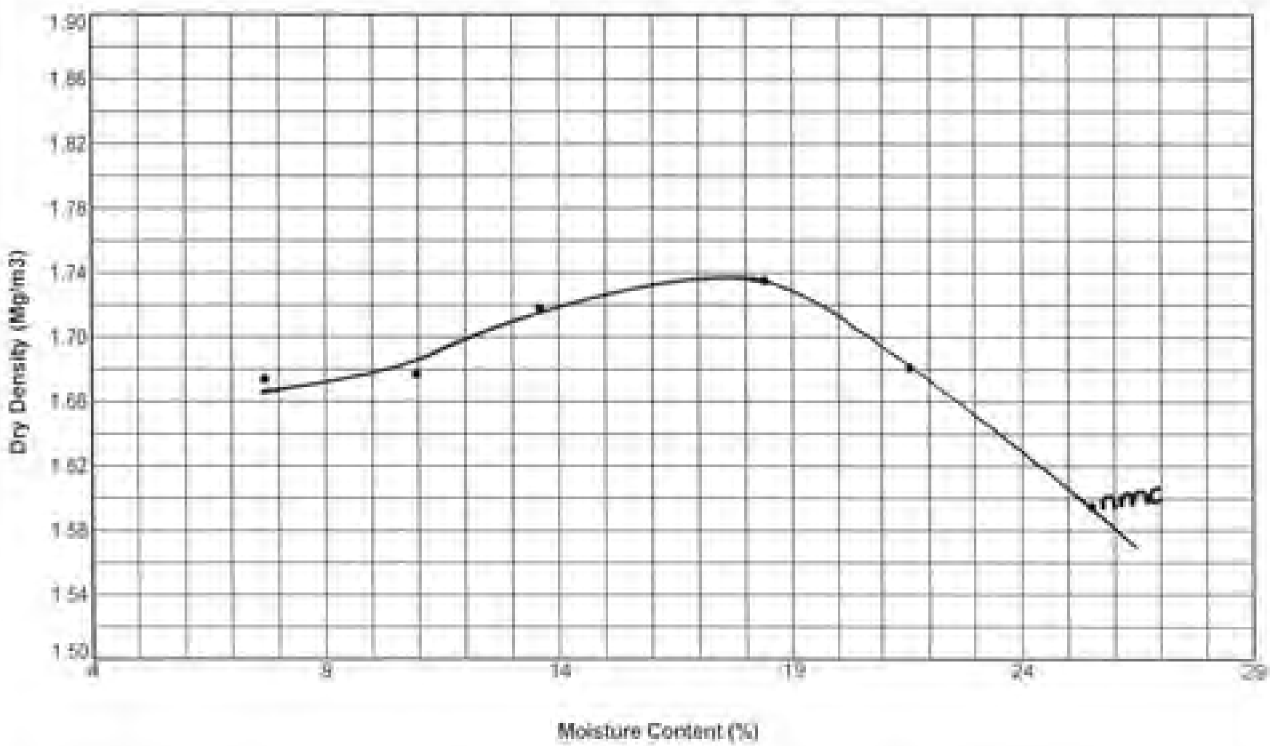
Maximum Dry Density (Mg/m3) = **1.74**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **29/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP
BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP178** Depth (m) :- **0.60** Sample Type & No :- **B2**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **21.7**

Particle Density (Assumed) = **2.00**

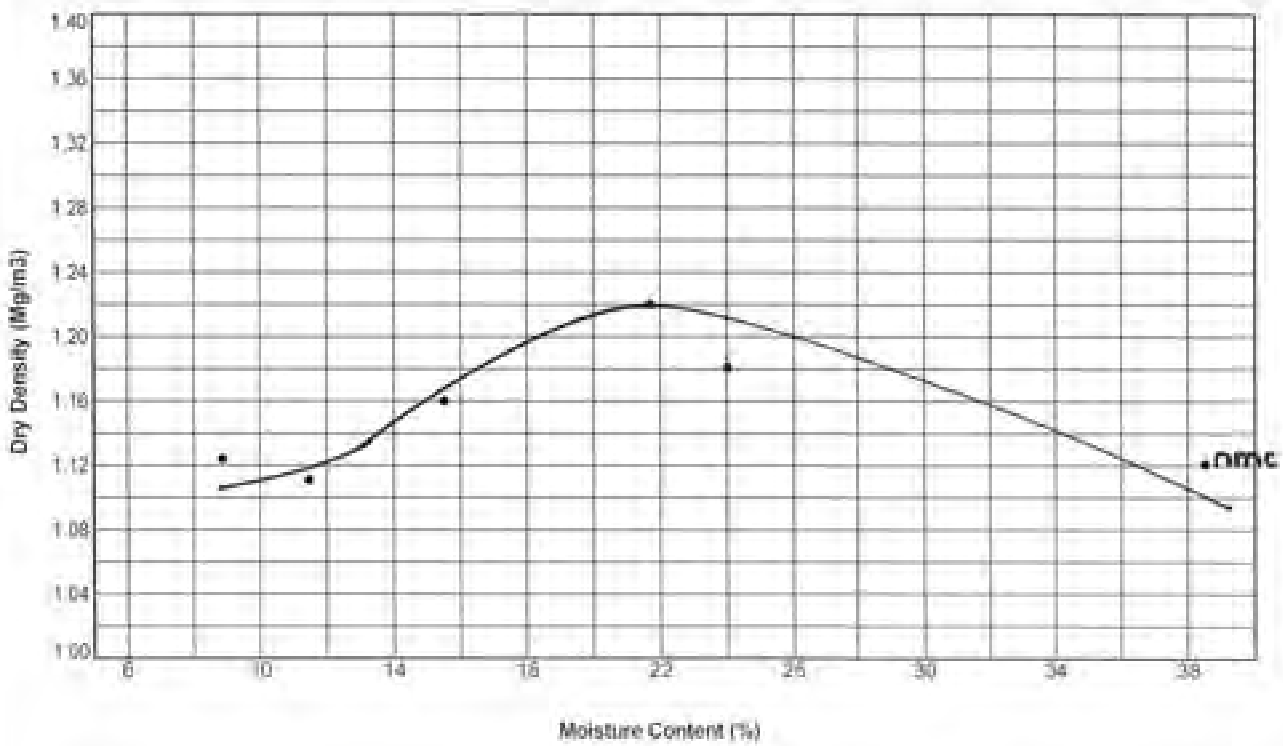
Maximum Dry Density (Mg/m3) = **1.22**

Retained on 20mm Sieve (%) = **11.0**

Date Tested = **05/10/2020**

Retained on 37.5mm Sieve (%) = **5.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP178** Depth (m) :- **1.60** Sample Type & No :- **B5**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **24.0**

Particle Density (Assumed) = **2.40**

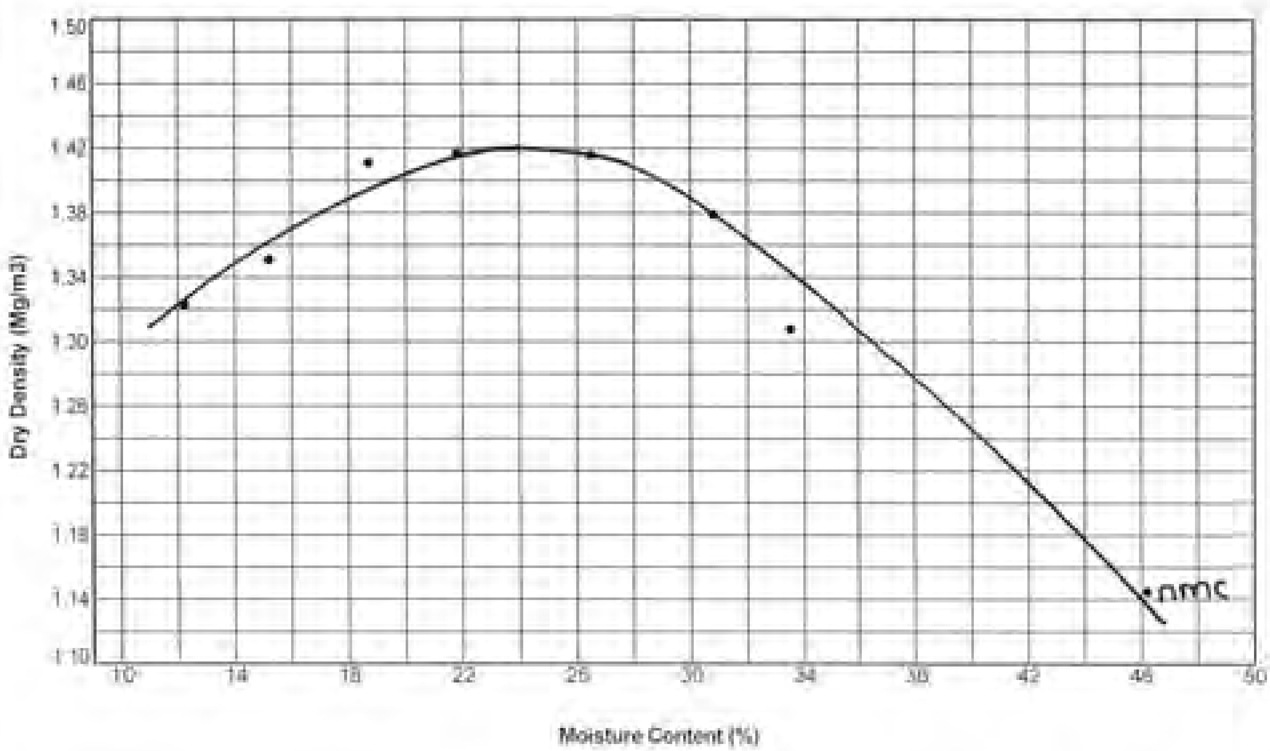
Maximum Dry Density (Mg/m3) = **1.42**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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Prairie Site Ground Investigation Works	South Tees Development Corporation

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UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 Part 4 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP179** Depth (m) :- **0.40** Sample Type & No :- **B2**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **16.0**

Particle Density (Assumed) = **2.05**

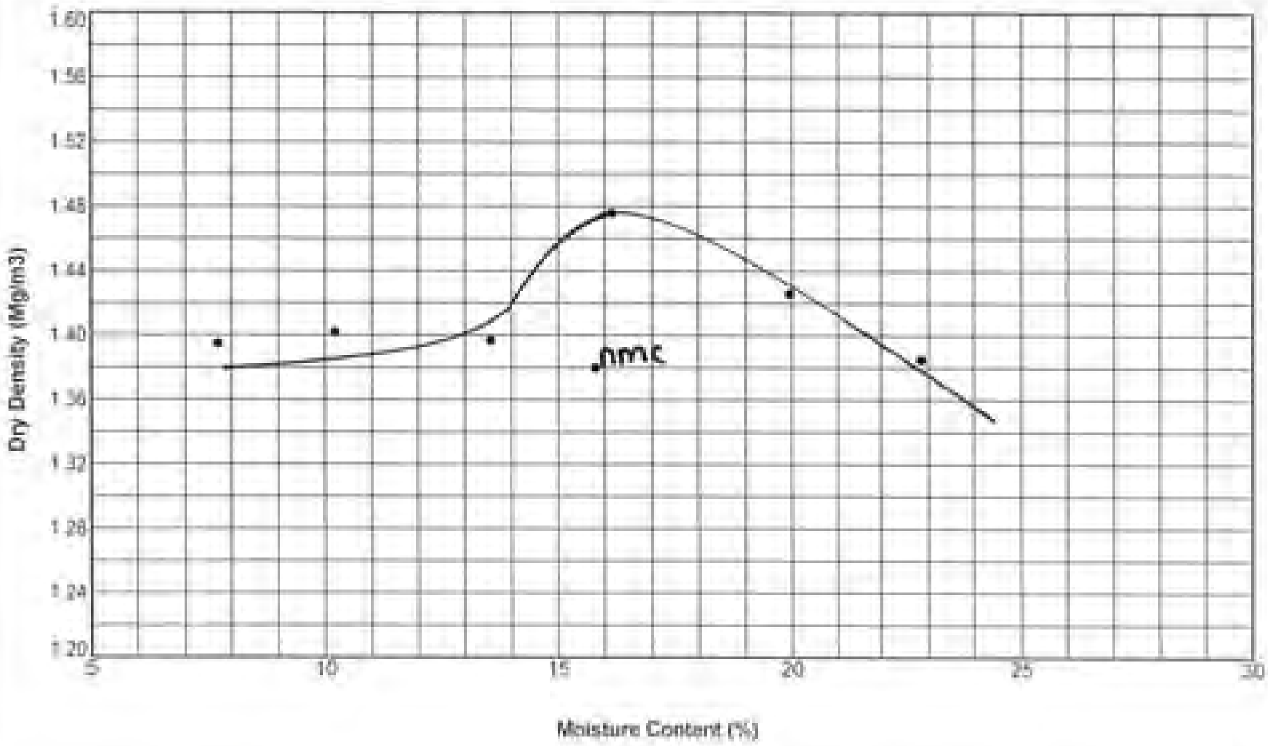
Maximum Dry Density (Mg/m3) = **1.48**

Retained on 20mm Sieve (%) = **19.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **10.0**

Remarks ::



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :- msene

Name :-

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Date of issue :- 02/11/2020

Certificate No :- COMP/4251/1

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP182** Depth (m) :- **0.60** Sample Type & No :- **B2**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **17.5**

Particle Density (Assumed) = **1.95**

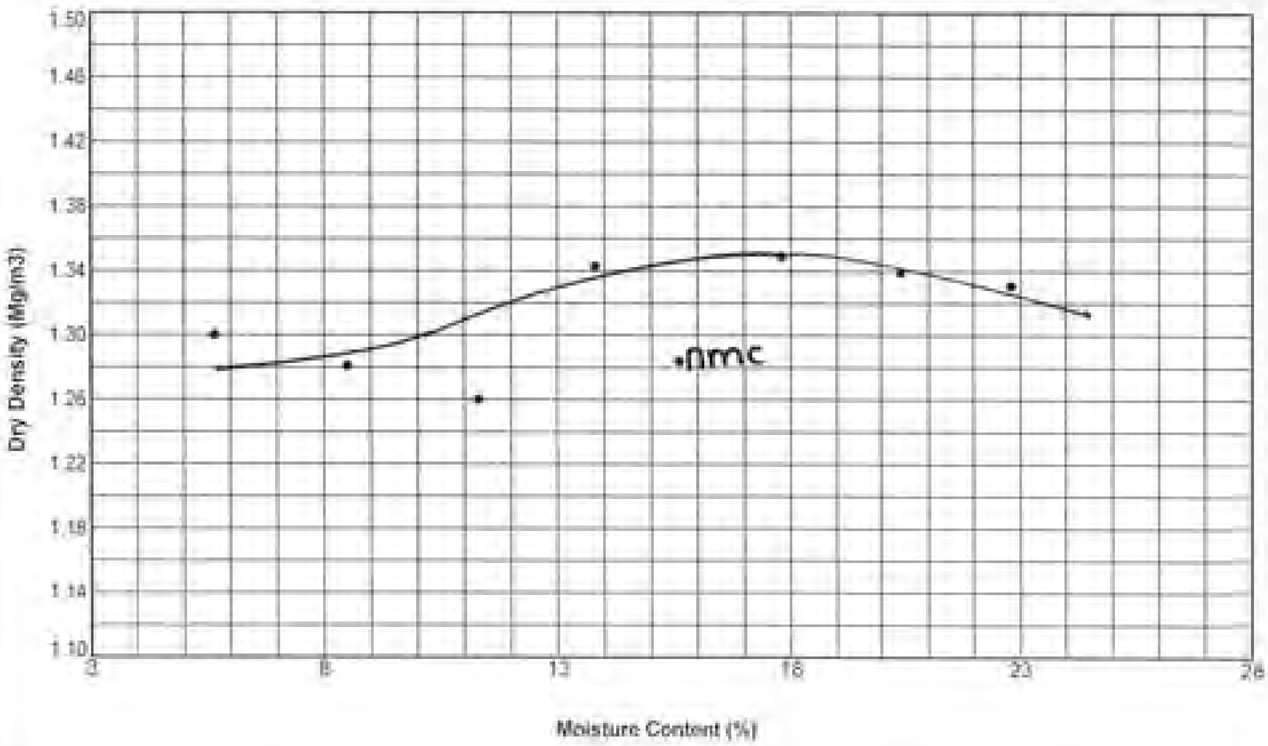
Maximum Dry Density (Mg/m3) = **1.35**

Retained on 20mm Sieve (%) = **17.0**

Date Tested = **28/09/2020**

Retained on 37.5mm Sieve (%) = **3.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP189** Depth (m) :- **1.50** Sample Type & No :- **B4**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **21.0**

Particle Density (Assumed) = **2.65**

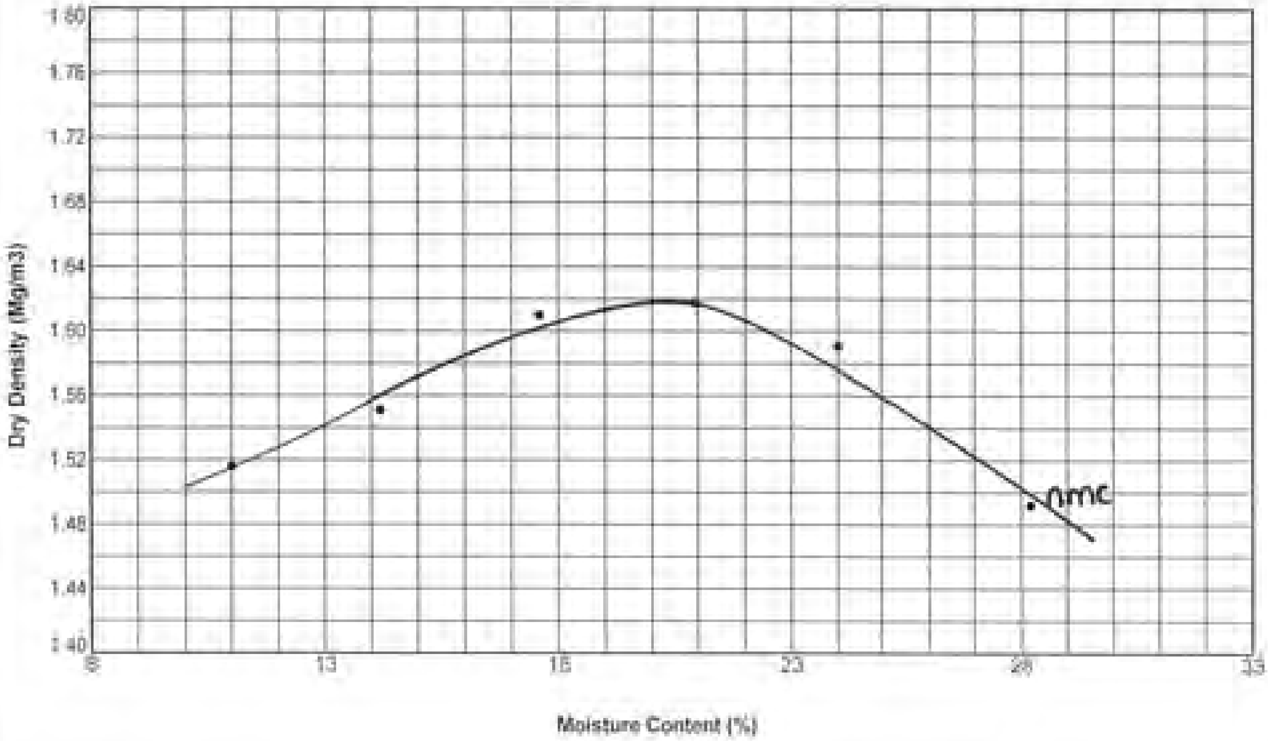
Maximum Dry Density (Mg/m3) = **1.62**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

MOISTURE CONTENT/DRY DENSITY RELATIONSHIP

BS 1377 : Part 4 : 1990

Specimen Identification

Exploratory Hole No :- **PRAIRIE_AUK_TP189** Depth (m) :- **2.90** Sample Type & No :- **B6**

Test Method 2.5kg Compaction Single Sample

Test Results

Optimum Moisture Content (%) = **21.5**

Particle Density (Assumed) = **2.70**

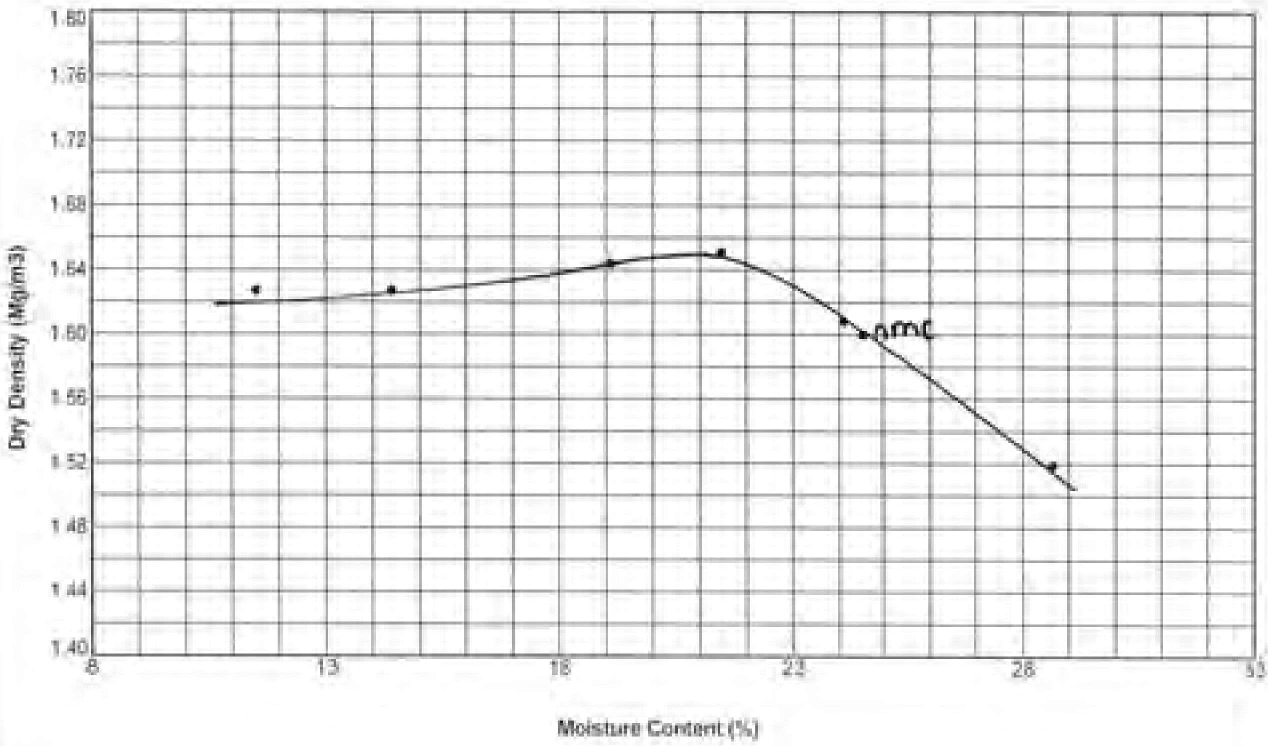
Maximum Dry Density (Mg/m3) = **1.65**

Retained on 20mm Sieve (%) = **0.0**

Date Tested = **30/09/2020**

Retained on 37.5mm Sieve (%) = **0.0**

Remarks :



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

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Date of Issue :- 02/11/2020	Certificate No :- COMP/4251/1	AEG Contract No :- 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ATTEMPTED AND ABORTED TESTING

Exploratory Hole No.	Sample Depth (m)	Sample ID	Test Type	Retained on 20mm (%)	Retained on 37.5mm (%)	Remarks
PRAIRIE_AUK_TP109	0.90	B4	2.5kg Compaction	55.0	45.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP110	1.00	B2	2.5kg Compaction	29.0	15.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP111	1.60	B5	2.5kg Compaction	48.0	37.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP113	1.80	B6	2.5kg Compaction	86.0	40.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP114	0.40	B4	2.5kg Compaction	23.0	12.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP117	2.00	B5	2.5kg Compaction	65.0	39.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP132	2.00	B6	2.5kg Compaction	57.0	37.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP137	1.00	B4	2.5kg Compaction	38.0	6.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP155A	0.70	B4	2.5kg Compaction	82.0	81.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP164	1.80	B5	4.5kg Compaction	64.0	51.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP169	0.80	B2	4.5kg Compaction	25.0	20.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP172	0.60	B2	2.5kg Compaction	97.0	96.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP177	1.80	B7	2.5kg Compaction	98.0	97.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP181	0.50	B2	2.5kg Compaction	25.0	16.0	Test Unsuitable due to excessive coarse material.
PRAIRIE_AUK_TP188	0.60	B2	2.5kg Compaction	39.0	8.0	Test Unsuitable due to excessive coarse material.

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed :-

Name :-

Date of issue :- 03/11/2020

Certificate No :- USCR/4251/1

AEG Contract No :- 4251

UKAS TESTING 1367

LABORATORY TESTING ENCLOSURE 7

Determination of California Bearing Ratio

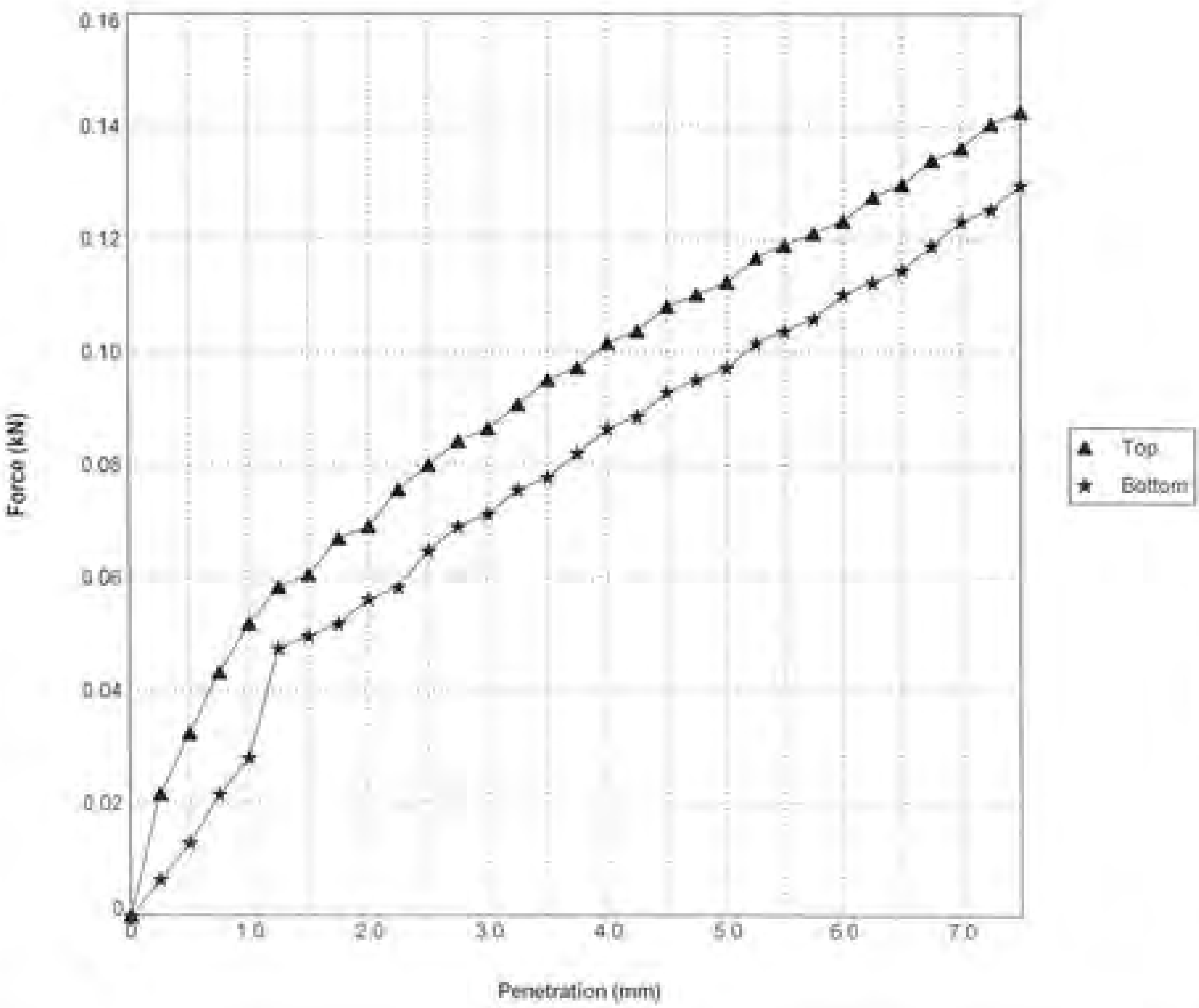
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_BH107** Sample No.- **B5** Depth (m)- **4.00**

"As Received" Moisture Content (%) :	27.4	Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 27.1 / Bottom 27.7
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	1.96
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.54
Date Tested :	14/07/2020	CBR Value (%) :	Top 0.6 / Bottom 0.5
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :- M. SELKIRK	Page 1 of 1
Date of issue :- 31/07/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_BH107/B5/4.00/1	AEG Contract No :- 4251

UKAS TESTING 1367

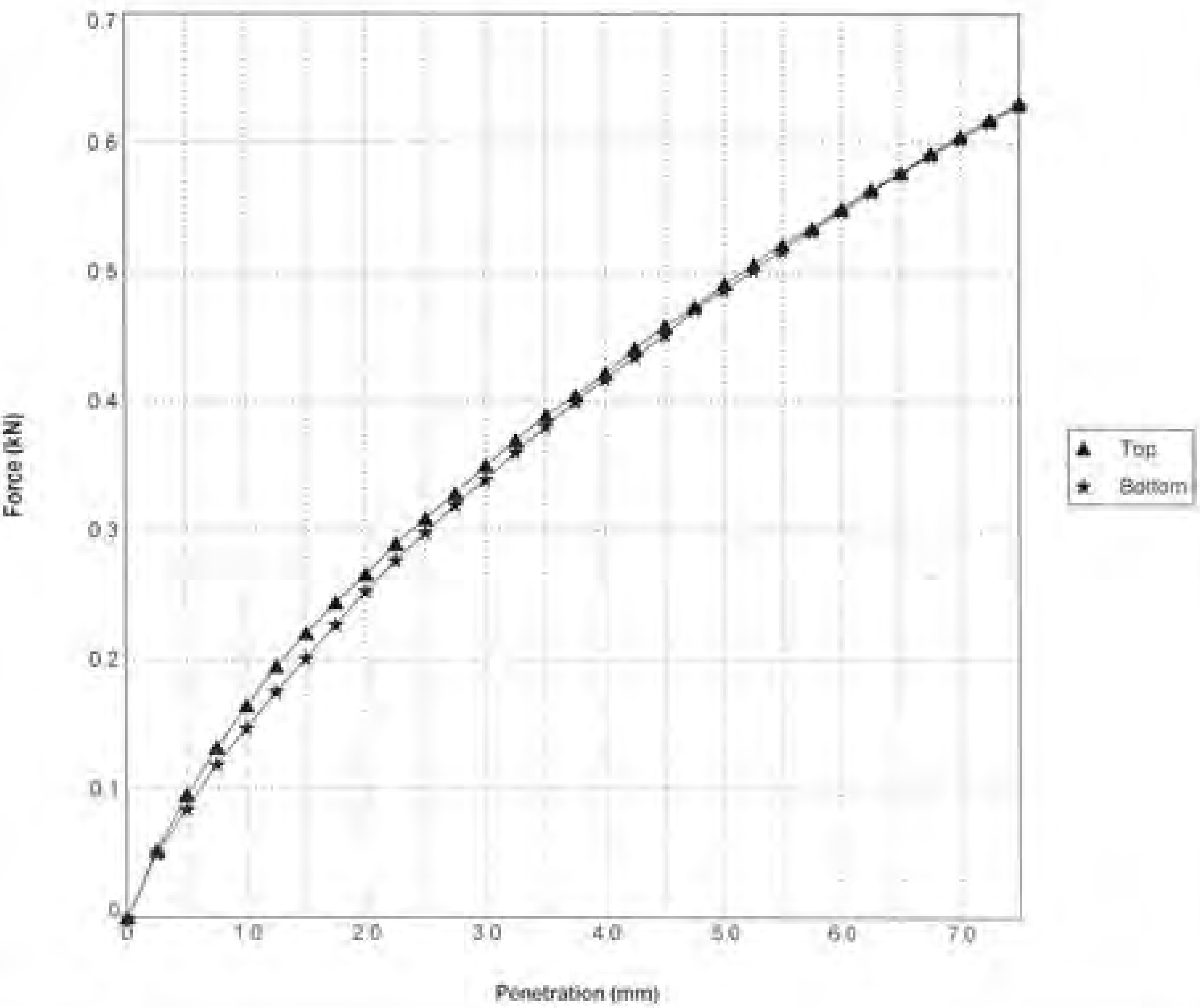
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_BH109** Sample No.- **B4** Depth (m)- **0.50**

"As Received" Moisture Content (%) :	23.8	Surcharge (Kg) :	6
Retained on 20mm (%) :	1.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 23.3 / Bottom 24.2
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	2.00
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.61
Date Tested :	14/07/2020	CBR Value (%) :	Top 2.5 / Bottom 2.4
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed :-	Name :-		Page 1 of 1
Date of Issue :- 31/07/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_BH109/B4/0.50/1	AEG Contract No :- 4251	UKAS TESTING 1367

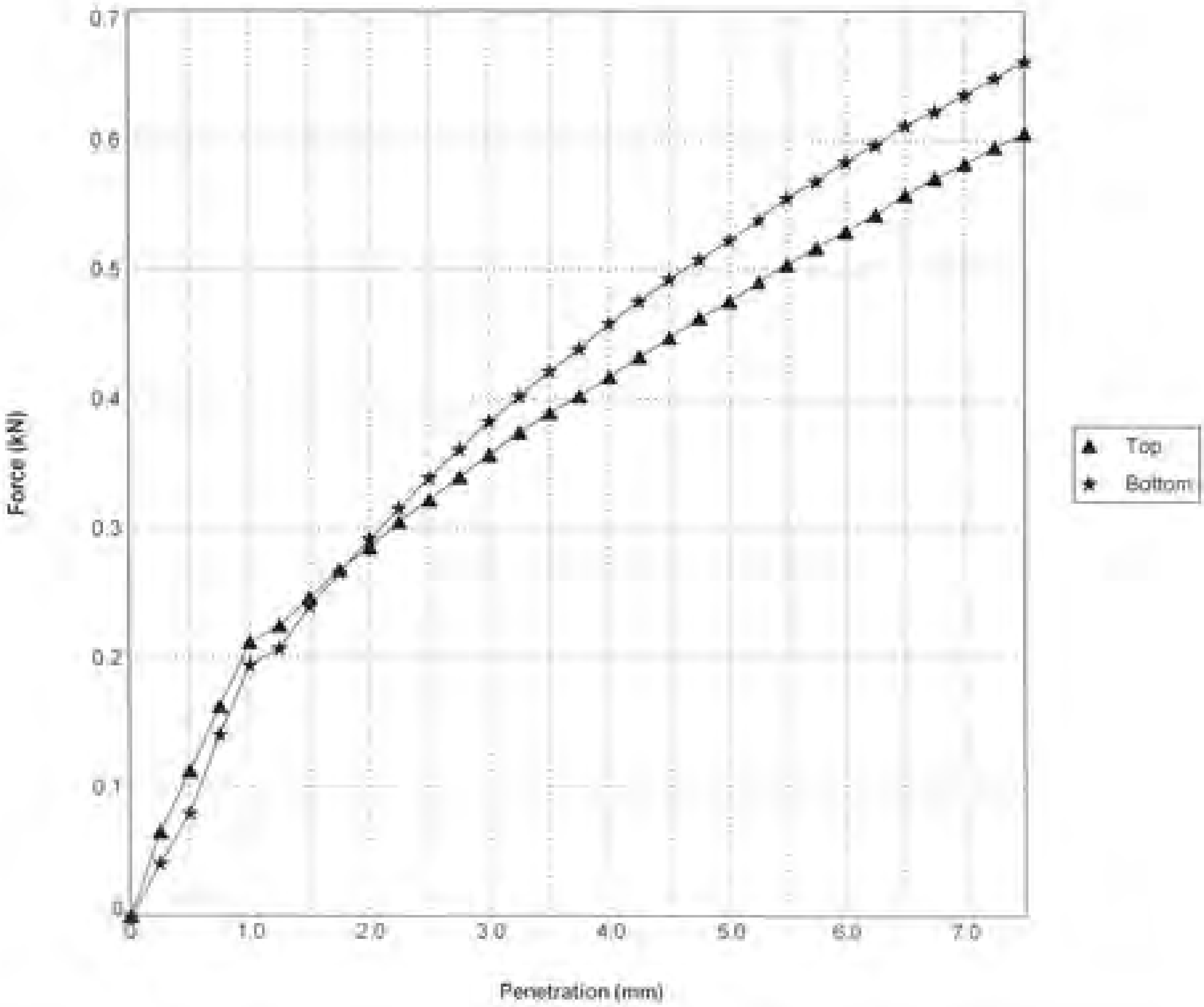
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_BH109** Sample No.- **B10** Depth (m)- **2.00**

"As Received" Moisture Content (%) :	24.5	Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 24.9 / Bottom 24.0
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	2.00
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.60
Date Tested :	14/07/2020	CBR Value (%) :	Top 2.4 / Bottom 2.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :- msone	Name :-	Page 1 of 1	UKAS TESTING 1367
Date of issue :- 31/07/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_BH109/B10/2.00/1	AEG Contract No :- 4251	

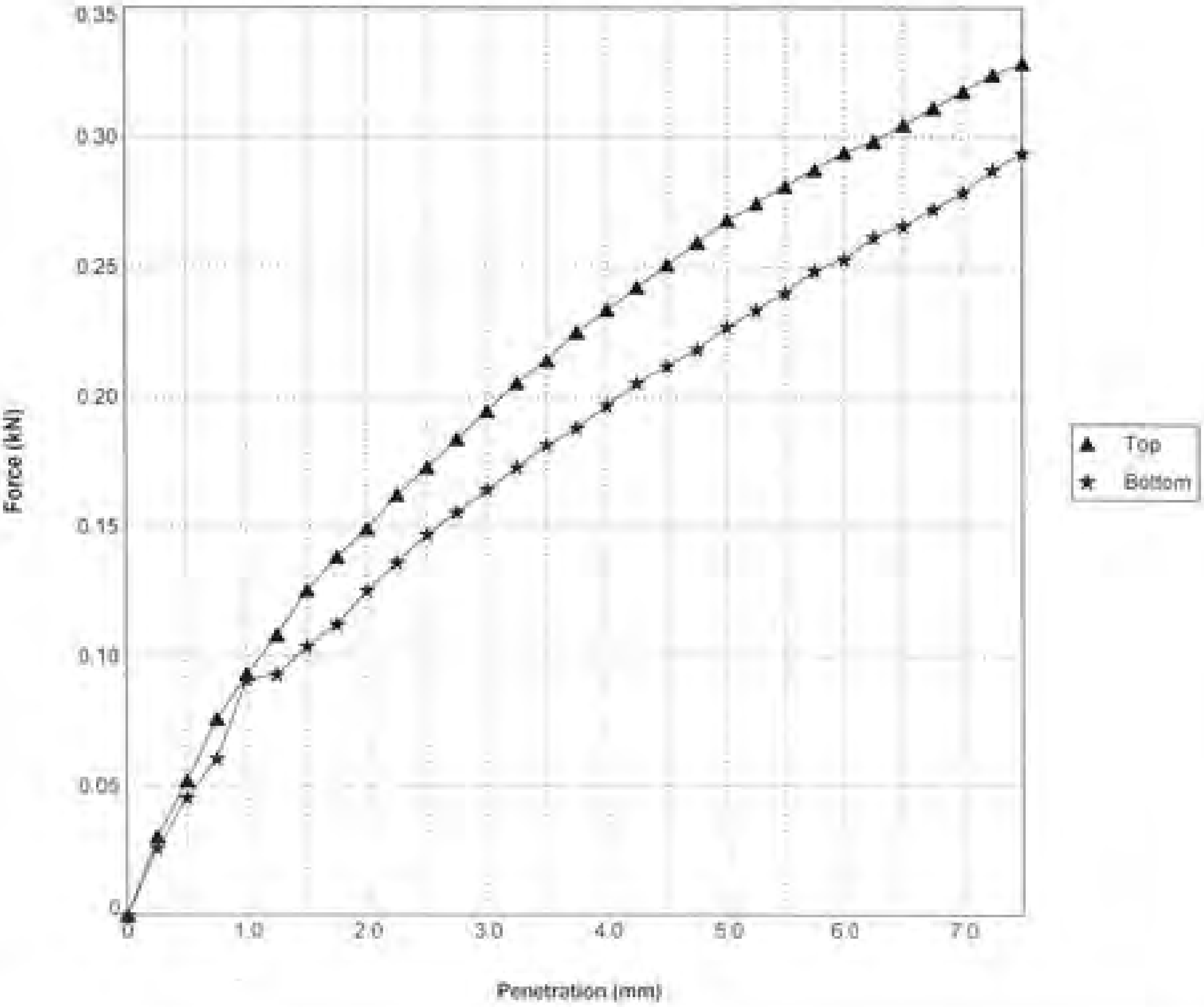
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_BH110** Sample No.- **B10** Depth (m)- **6.50**

"As Received" Moisture Content (%) :	25.9	Surcharge (Kg) :	5
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 25.6 / Bottom 26.2
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	1.97
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.57
Date Tested :	14/07/2020	CBR Value (%) :	Top 1.3 / Bottom 1.1
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1	1367
Date of issue :- 31/07/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_BH110/B10/6.50/1	AEG Contract No. :- 4251	

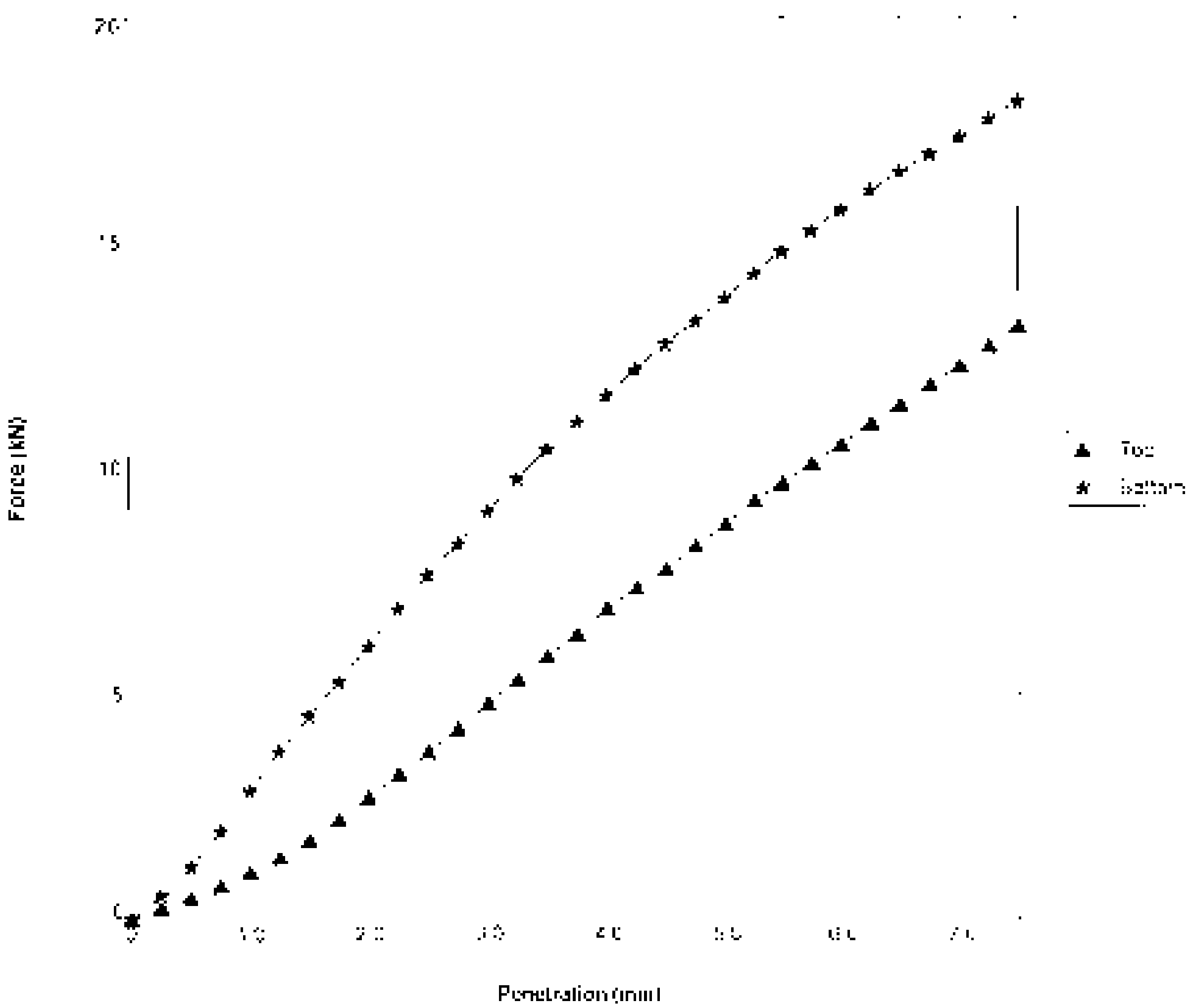
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP101** Sample No - **B4** Depth (m) - **0.90**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	32.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 17 / Bottom 16
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.94
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.67
Date Tested	01/10/2020	CBR Value (%)	Top 44 / Bottom 69
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed: msone

Name:

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AEG Contract No: 4251

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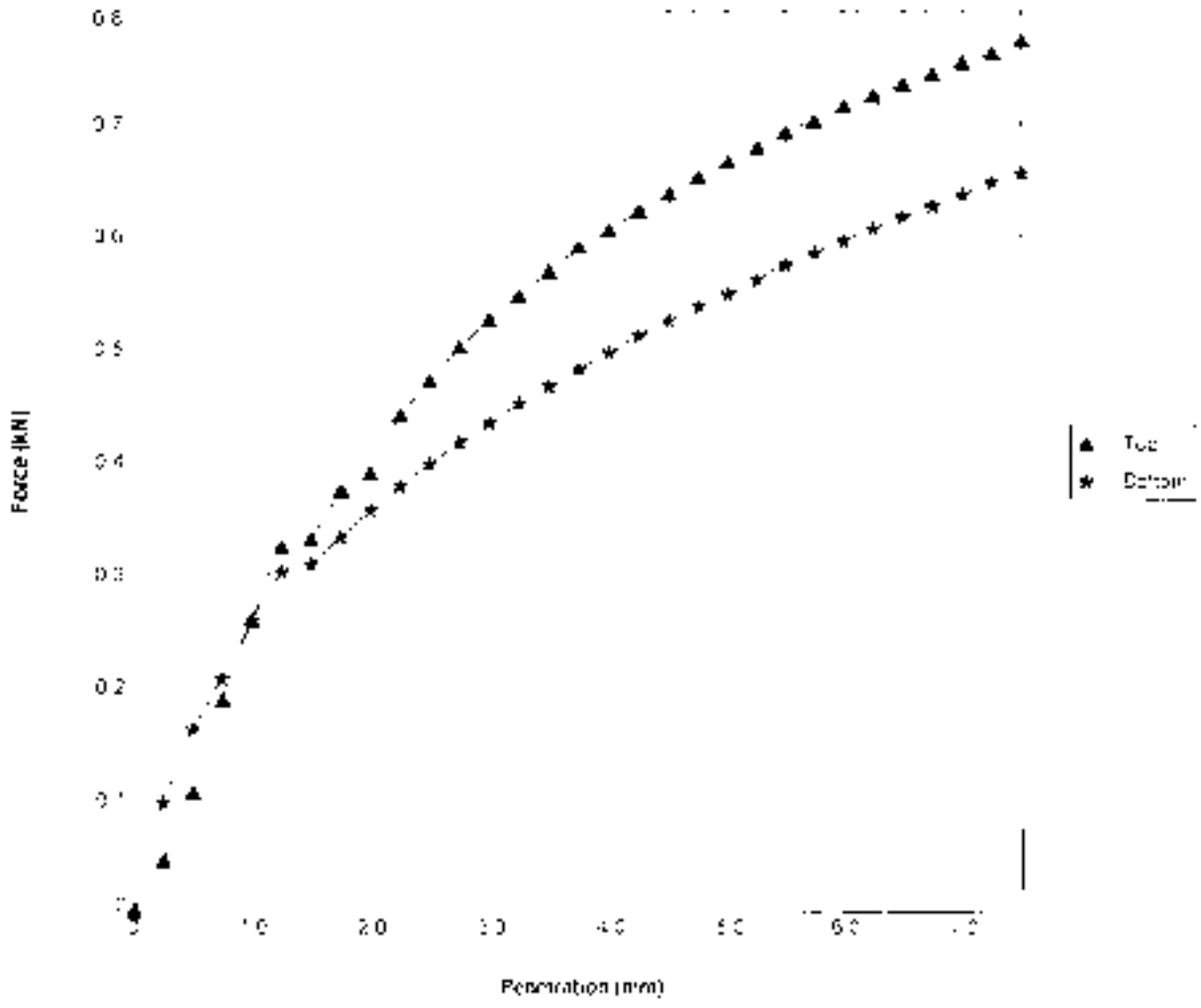
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.6 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP101** Sample No - **B11** Depth (m)- **3.00**

"As Received" Moisture Content (%)		Surcharge (Kg)	9
Retained on 20mm (%)	0.2	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 29 / Bottom 29
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.95
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.52
Date Tested	30/09/2020	CBR Value (%)	Top 3.6 / Bottom 3.0
Preparation Method	2.5kg Compaction		
Remarks			



For details of sample history refer to the Laboratory Summary Sheet

Contract Title

Prairie Site Ground Investigation Works

Client

South Tees Development Corporation

Signature

Name

Position

Date of Issue

Approved Signatory

4251

1367

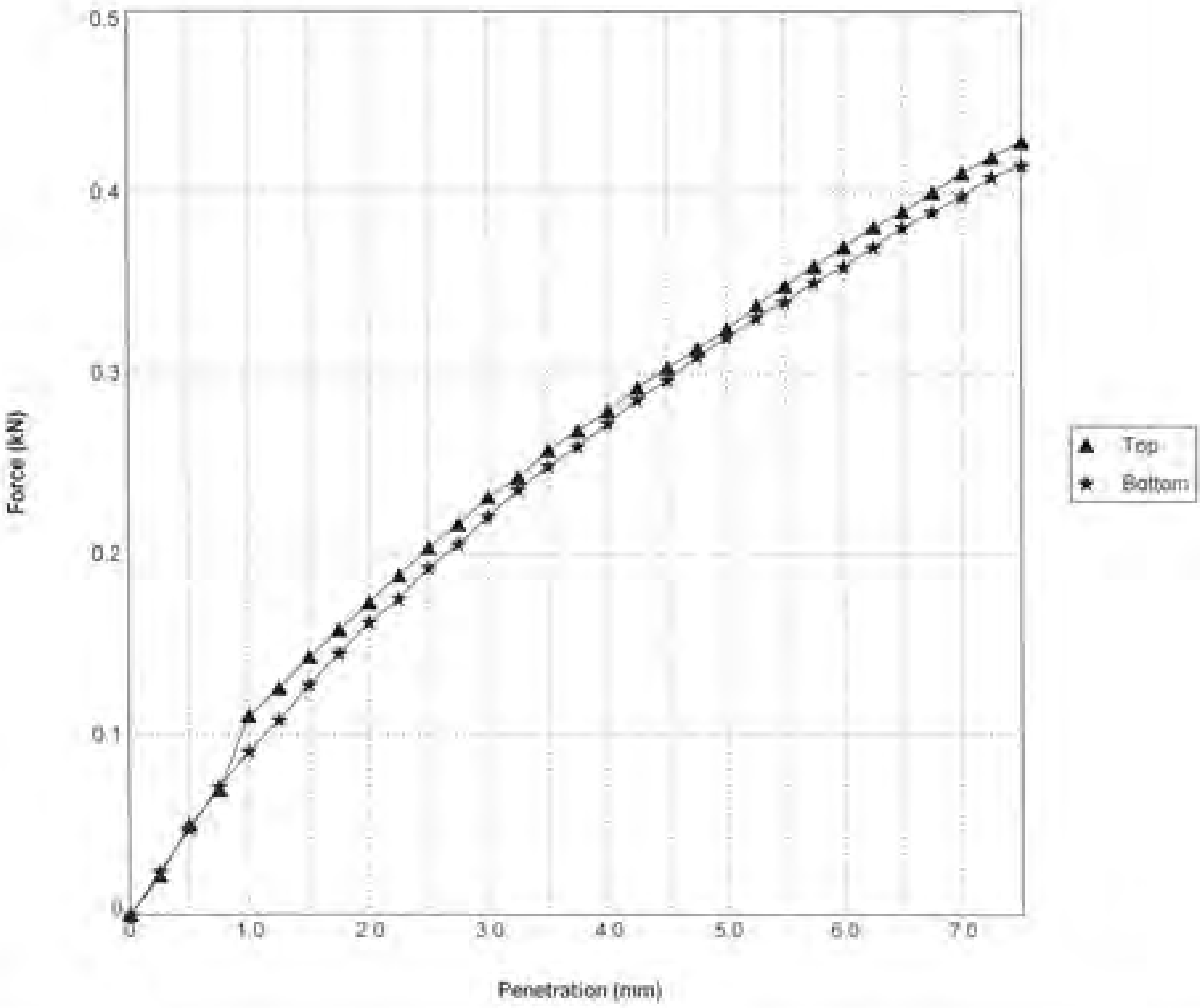
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP102** Sample No.- **B8** Depth (m)- **2.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	5.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 22 / Bottom 23
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	2.02
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.65
Date Tested :	19/10/2020	CBR Value (%) :	Top 1.6 / Bottom 1.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP102/B8/2.00/1	AEG Contract No :- **4251**

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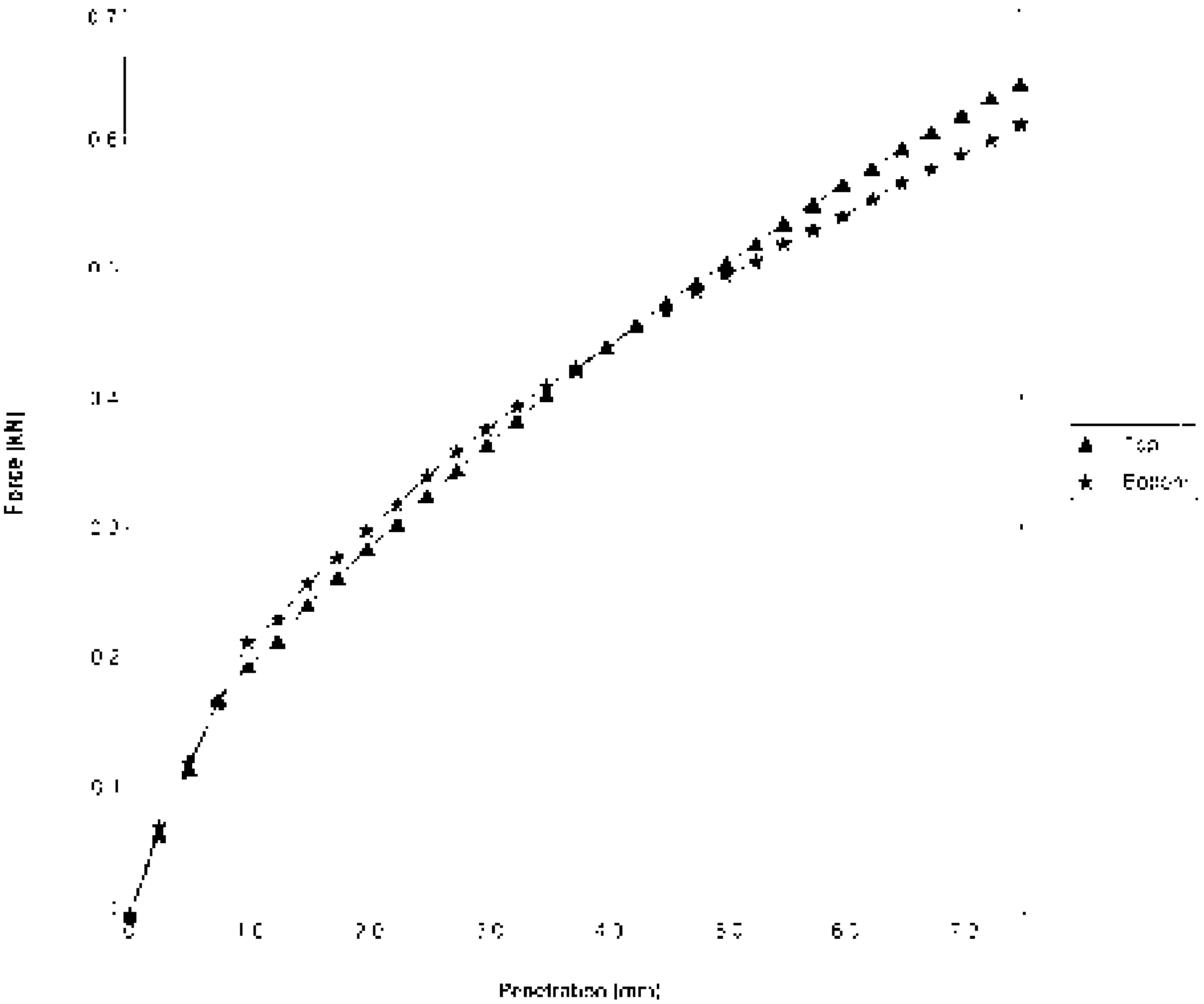
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP105** Sample No **B5** Depth (m)- **2.00**

'As Received' Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	2.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 27 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.95
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.53
Date Tested	30/09/2020	CBR Value (%)	Top 2.5 / Bottom 2.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Issued: msow

Name:

Page 1 of 1

Date of Issue: 02/10/2020

Contract No.: CBR 4 PROPRAIRIE AUK TP105 B5

AGS Contract No.: **4251**

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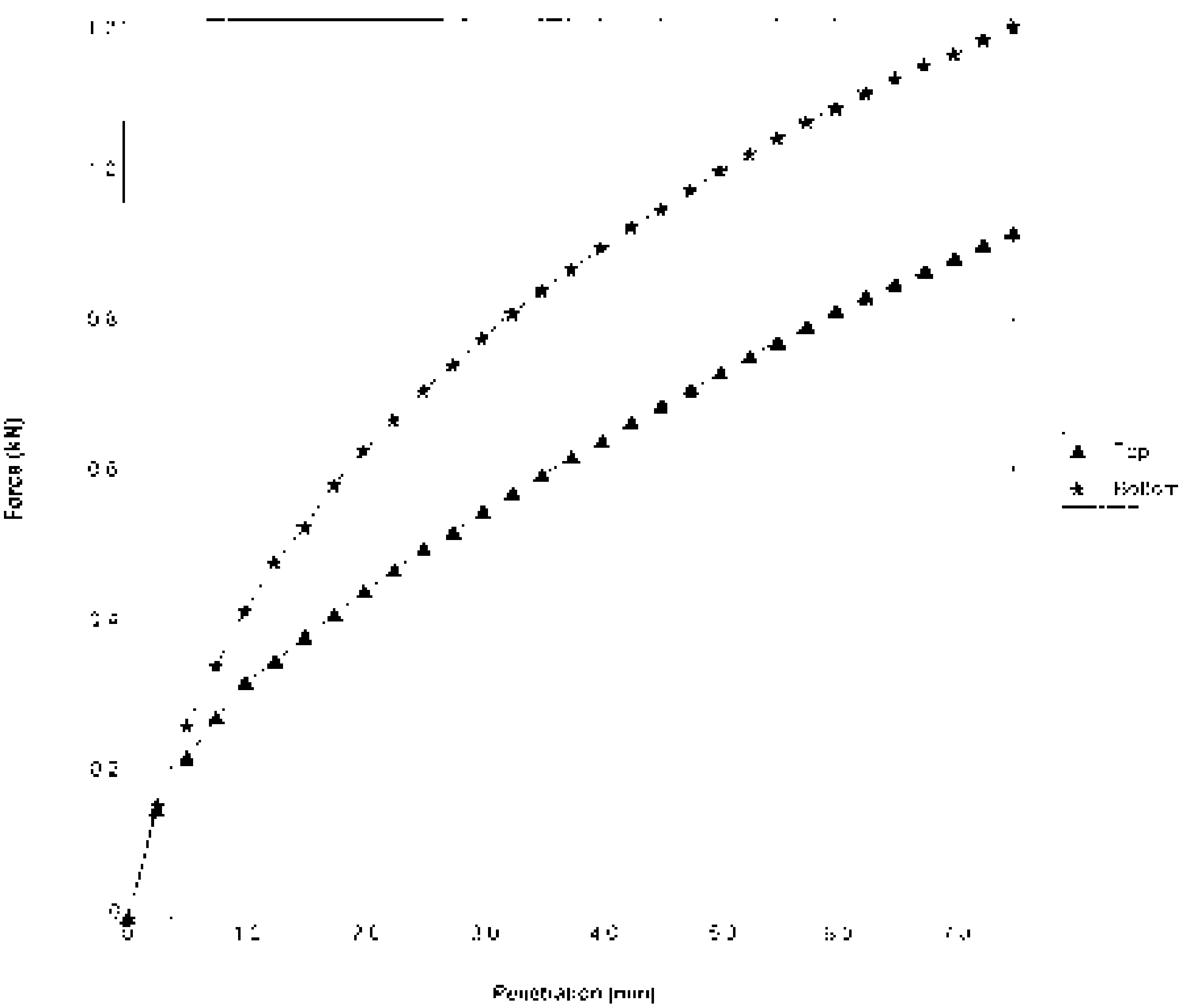
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP107** Sample No - **B4** Depth (m) - **1.00**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	5.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 25 / Bottom 24
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	2.00
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.61
Date Tested	30/09/2020	CBR Value (%)	Top 3.7 / Bottom 5.3
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed:

Name:

Page 1 of 1

Date of Issue:

Certificate No: CER-4251-PRAIRIE_AUK_TP107-B4-1.00

AEG Contract No: 4251

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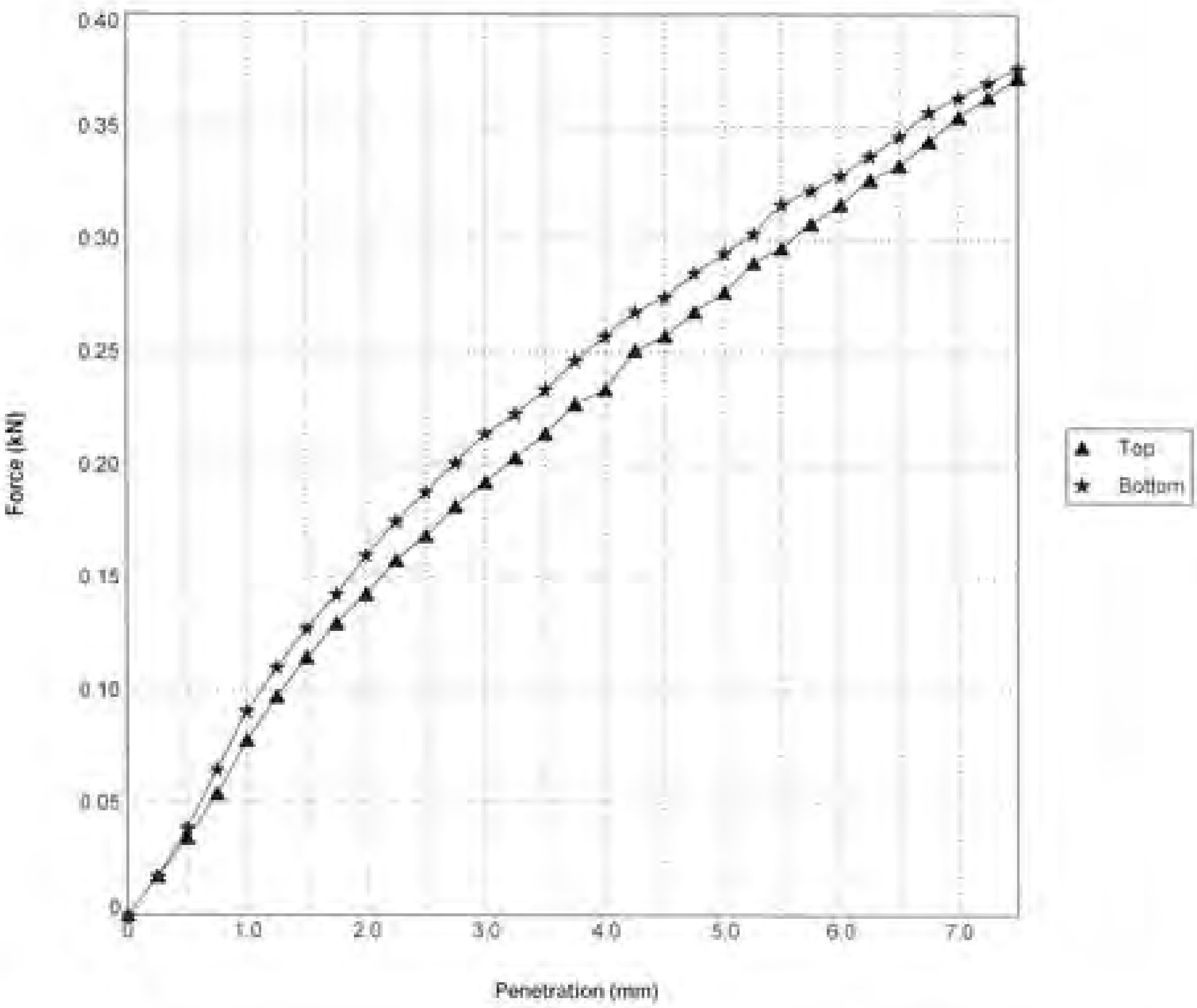
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP110** Sample No.- **B8** Depth (m)- **3.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 31 / Bottom 31
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	2.27
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.73
Date Tested :	16/10/2020	CBR Value (%) :	Top 1.4 / Bottom 1.5
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :-	Client :-
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP110/B8/3.00/1	AEG Contract No :- 4251

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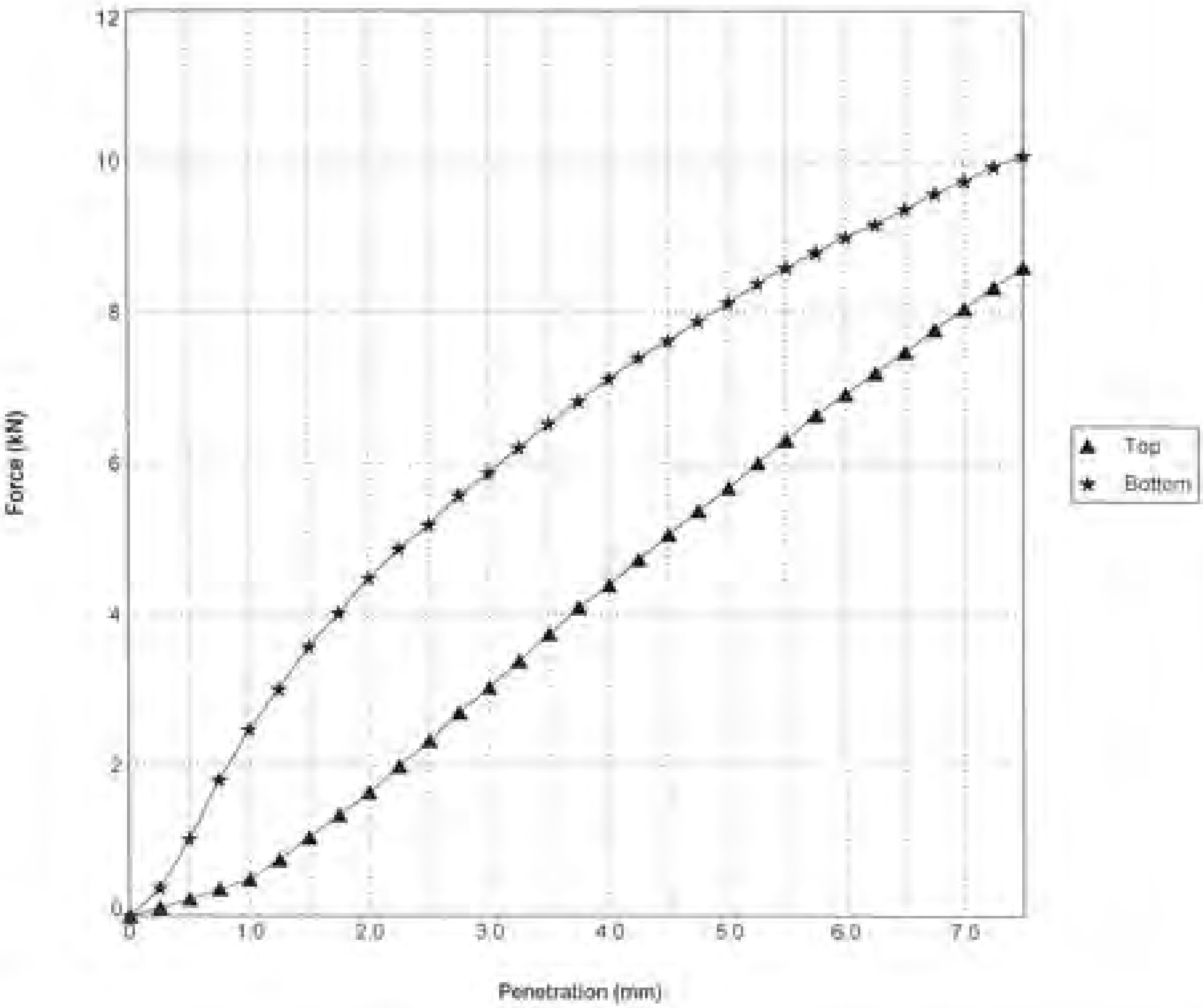
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP112** Sample No.- **B5** Depth (m)- **1.70**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	28.0	Seating Load (N) :	Top 250 / Bottom 250
Correction Needed :	No	Test Moisture Content (%) :	Top 20 / Bottom 18
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	1.65
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.39
Date Tested :	19/10/2020	CBR Value (%) :	Top 28 / Bottom 41
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-		Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP112/B5/1.70/1	AEG Contract No :- **4251**	1367

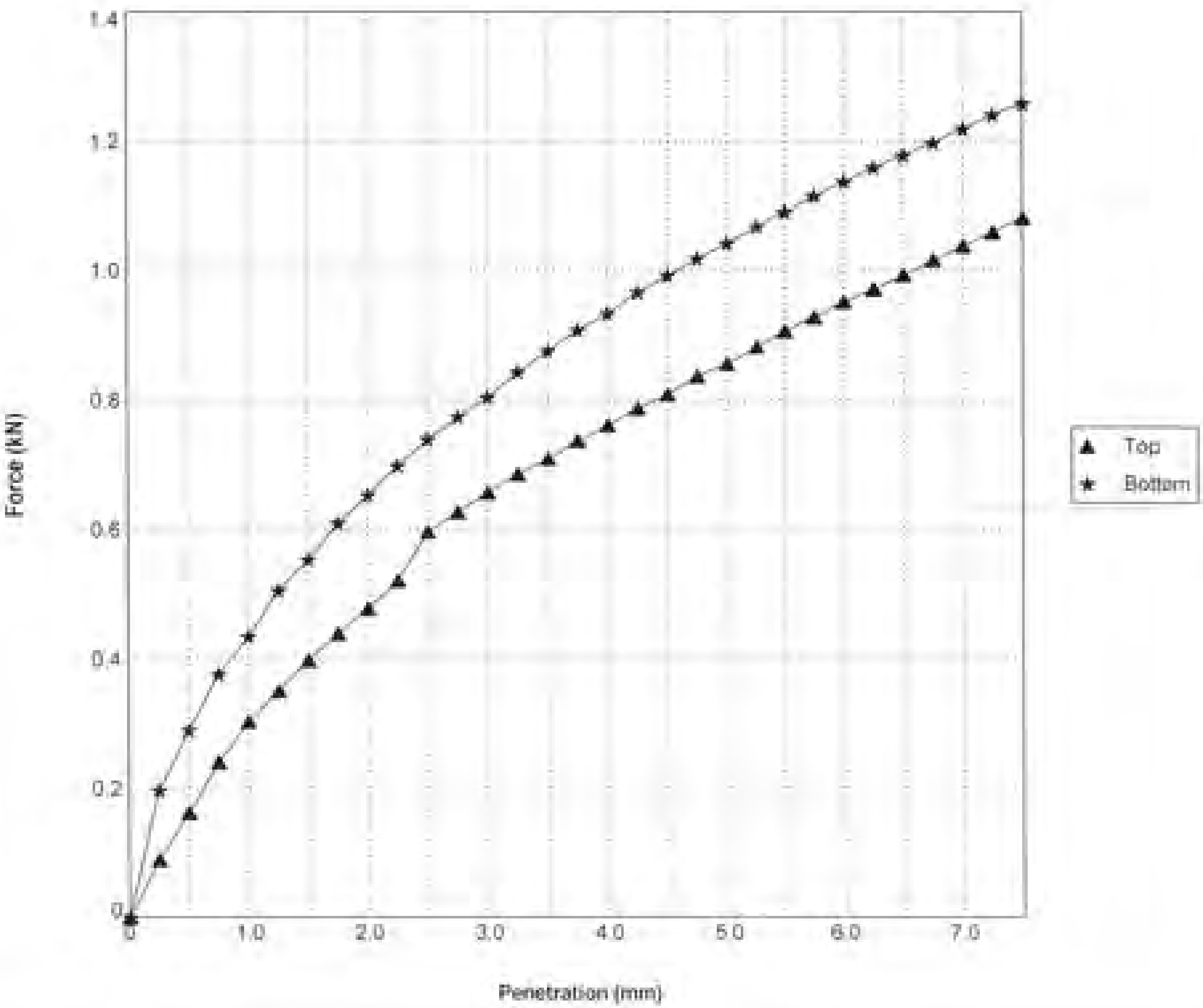
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP116** Sample No.- **B8** Depth (m)- **2.50**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 50 / Bottom 50
Correction Needed :	No	Test Moisture Content (%) :	Top 24 / Bottom 24
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	1.98
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.60
Date Tested :	16/10/2020	CBR Value (%) :	Top 4.5 / Bottom 5.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :- msone	Name :-	Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP116/B8/2.50/1	AEG Contract No :- 4251

UKAS TESTING 1367

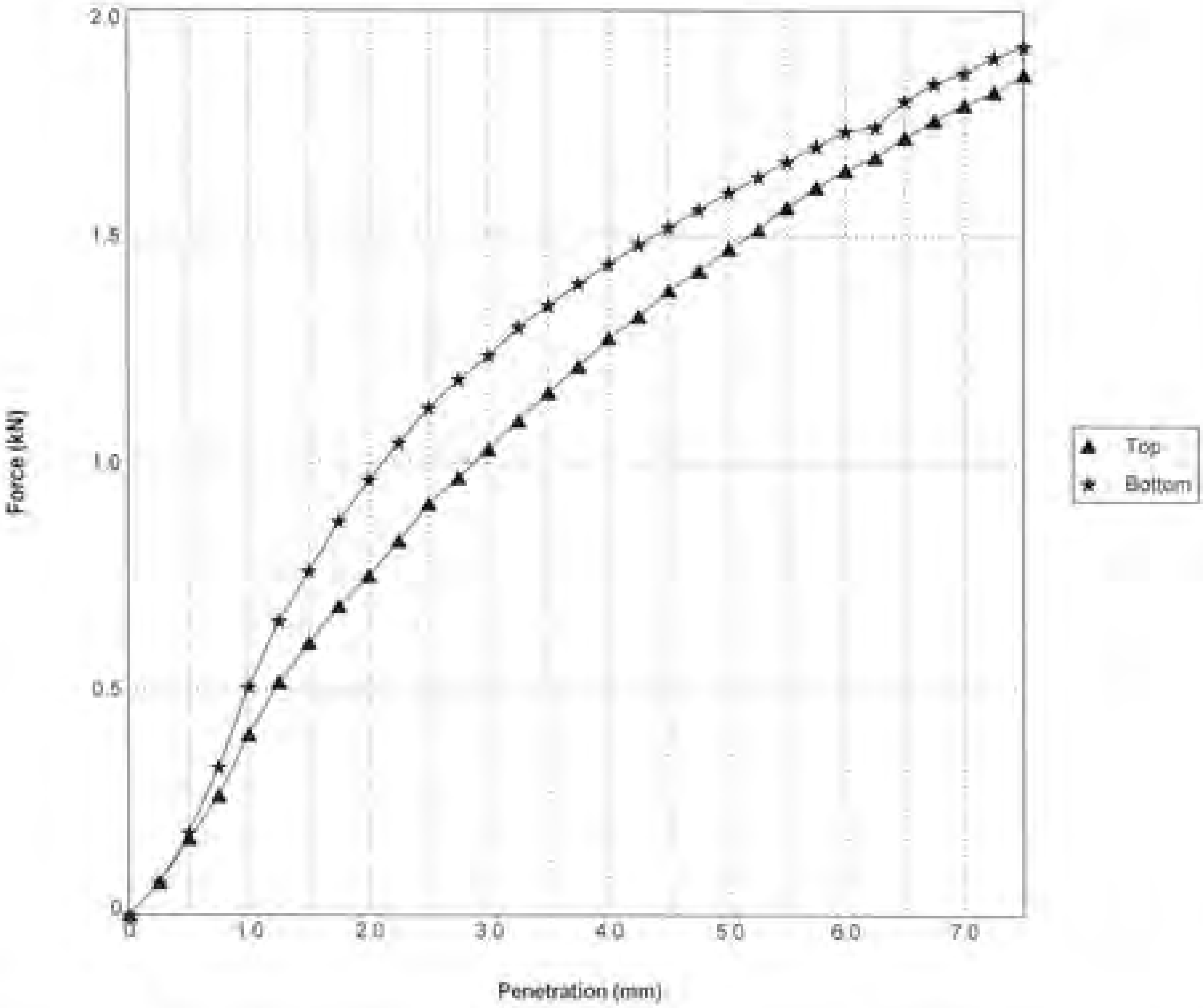
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP116** Sample No.- **B10** Depth (m)- **3.50**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	3.2	Seating Load (N) :	Top 50 / Bottom 50
Correction Needed :	No	Test Moisture Content (%) :	Top 17 / Bottom 17
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	2.12
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.81
Date Tested :	19/10/2020	CBR Value (%) :	Top 7.4 / Bottom 8.5
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-		Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP116/B10/3.50/1	AEG Contract No :- **4251**	UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

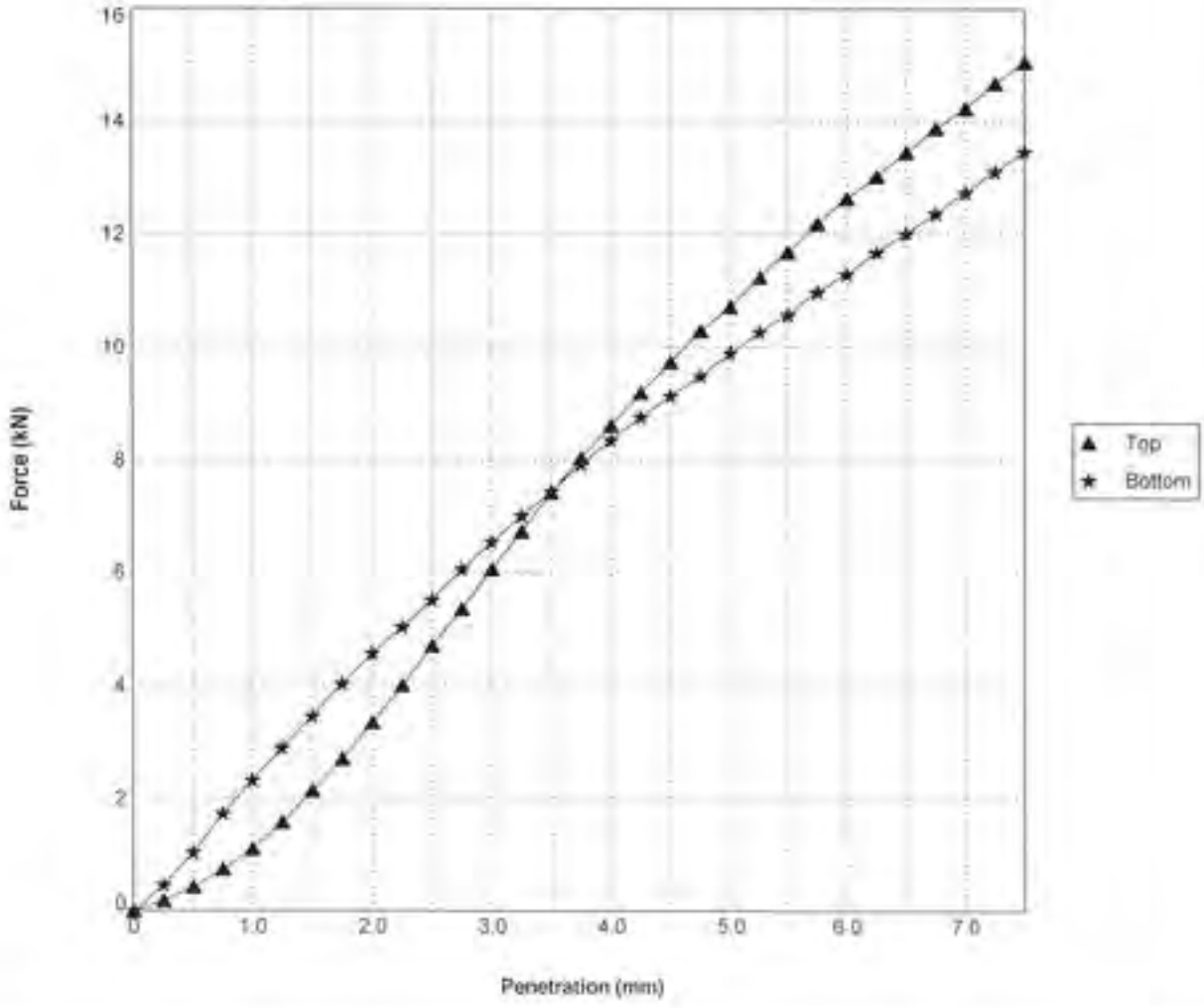
Head Office: Unit 20 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG. - Tel: 0191 492 4700 Fax: 0191 387 4773
Regional Office: Unit 20, Business Development Centre, Station Wharf, Blackburn, BB1 1BL. - Tel: 01772 735 300 Fax: 01772 735 999

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP119** Sample No.- **B5** Depth (m)- **2.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	17.0	Seating Load (N) :	Top 250 / Bottom 250
Correction Needed :	No	Test Moisture Content (%) :	Top 11 / Bottom 12
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	1.90
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.71
Date Tested :	19/10/2020	CBR Value (%) :	Top 54 / Bottom 50
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1	UKAS TESTING 1367
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP119/B5/2.00/1	AEG Contract No :- 4251	

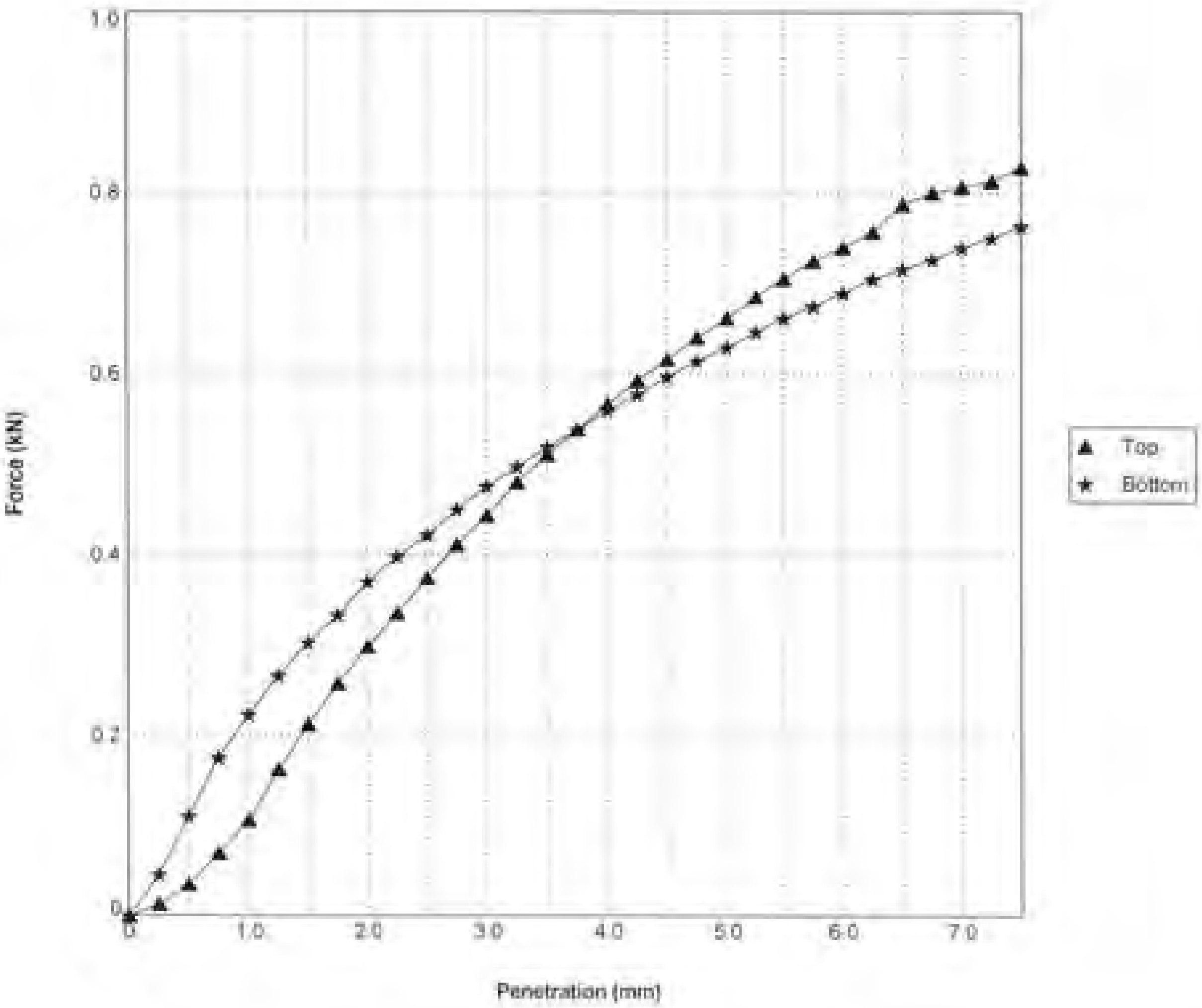
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP119** Sample No.- **B8** Depth (m)- **3.00**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	Yes	Test Moisture Content (%) :	Top 28 / Bottom 29
Soaking Time (Days) :	N/A	Bulk Density (Mg/m^3) :	1.93
Swelling (mm) :	N/A	Dry Density (Mg/m^3) :	1.50
Date Tested :	16/10/2020	CBR Value (%) :	Top 3.5 / Bottom 3.2
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-		Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP119/B8/3.00/1	AEG Contract No. :- 4251	UKAS TESTING 1367

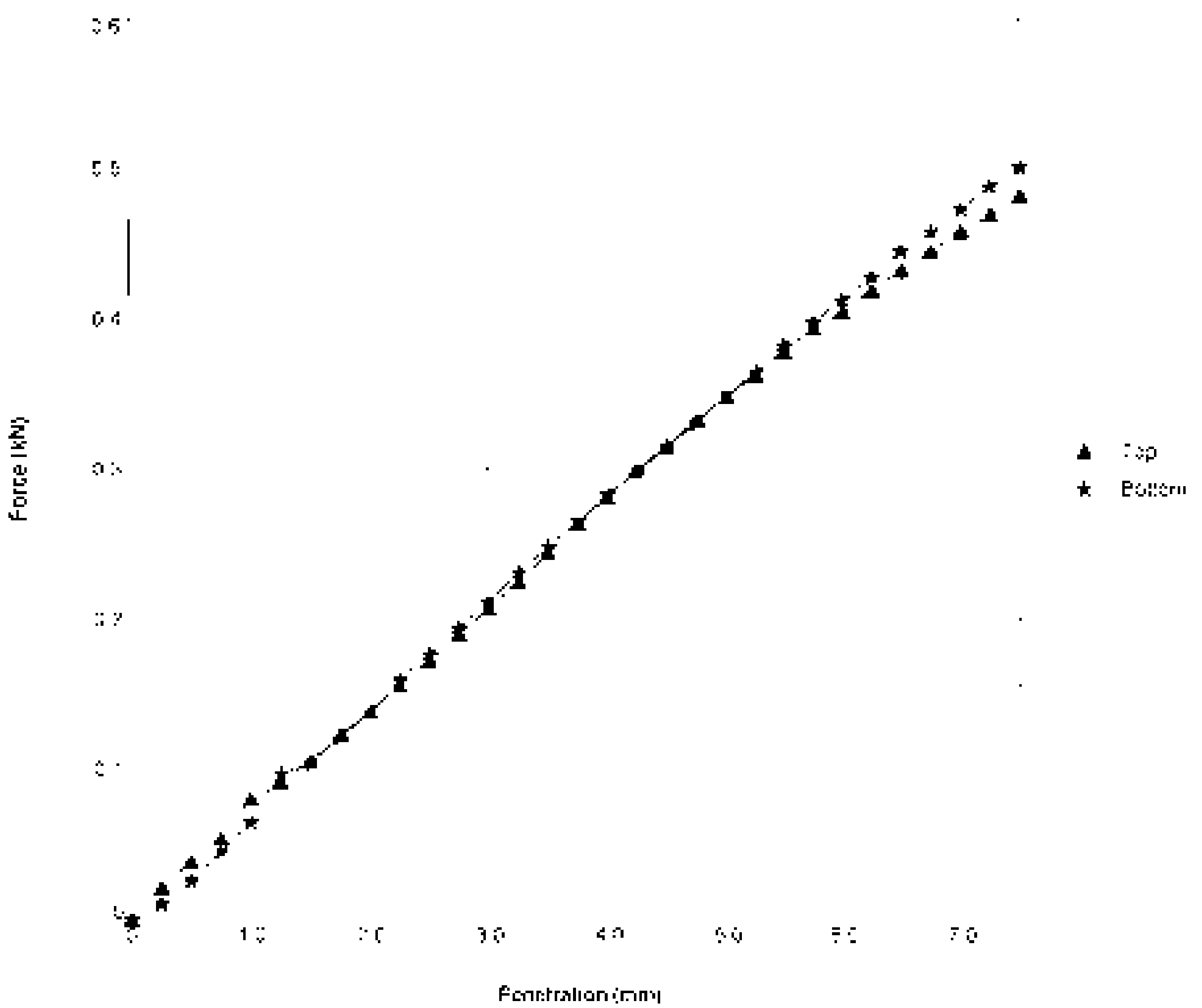
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUX_TP120A** Sample No - **B5** Depth (m) - **1.80**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 26 / Bottom 25
Soaking Time (Days)	N/A	Bulk Density (Mg/m^3)	1.96
Swelling (mm)	N/A	Dry Density (Mg/m^3)	1.57
Date Tested	15/10/2020	CBR Value (%)	Top 1.7 / Bottom 1.8
Preparation Method	2.5kg Compaction		
Remarks			



For description of the sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed : Name : Page 1 of 1

Date Checked : Checksheet Ref : AEG Contract No : **4251**

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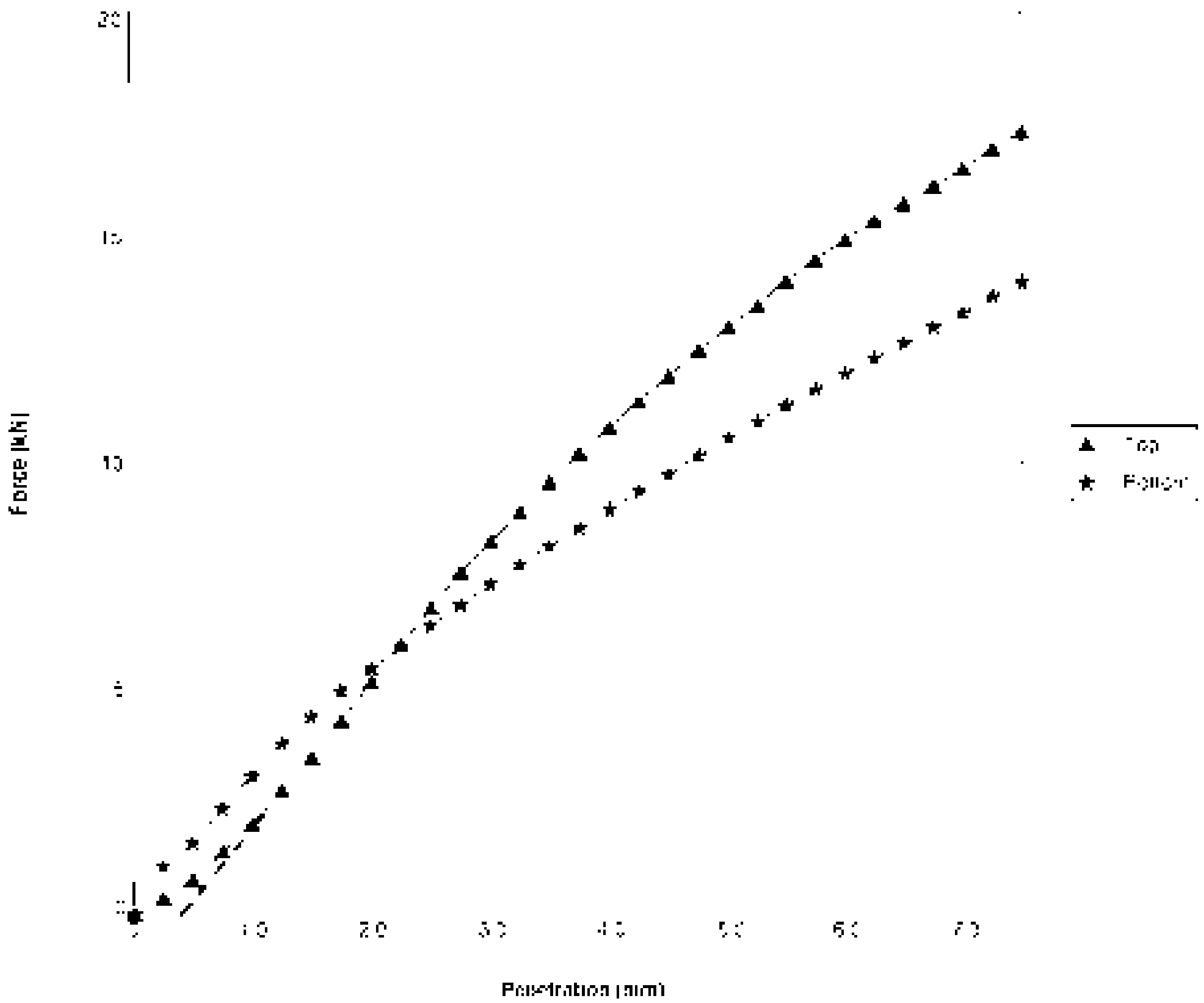
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP121** Sample No - **B2** Depth (m)- **0.80**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	1.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	Yes	Test Moisture Content (%)	Top 14 / Bottom 15
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	2.04
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.78
Date Tested	01/10/2020	CBR Value (%)	Top 70 / Bottom 53
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title : Prairie Site Ground Investigation Works

Client : South Tees Development Corporation

Signed : MSOR

Status :

Page 1 of 1

Date Issued : 20/10/2020

Client Ref No :

AGS Contract No : **4251**

UKAS 1367

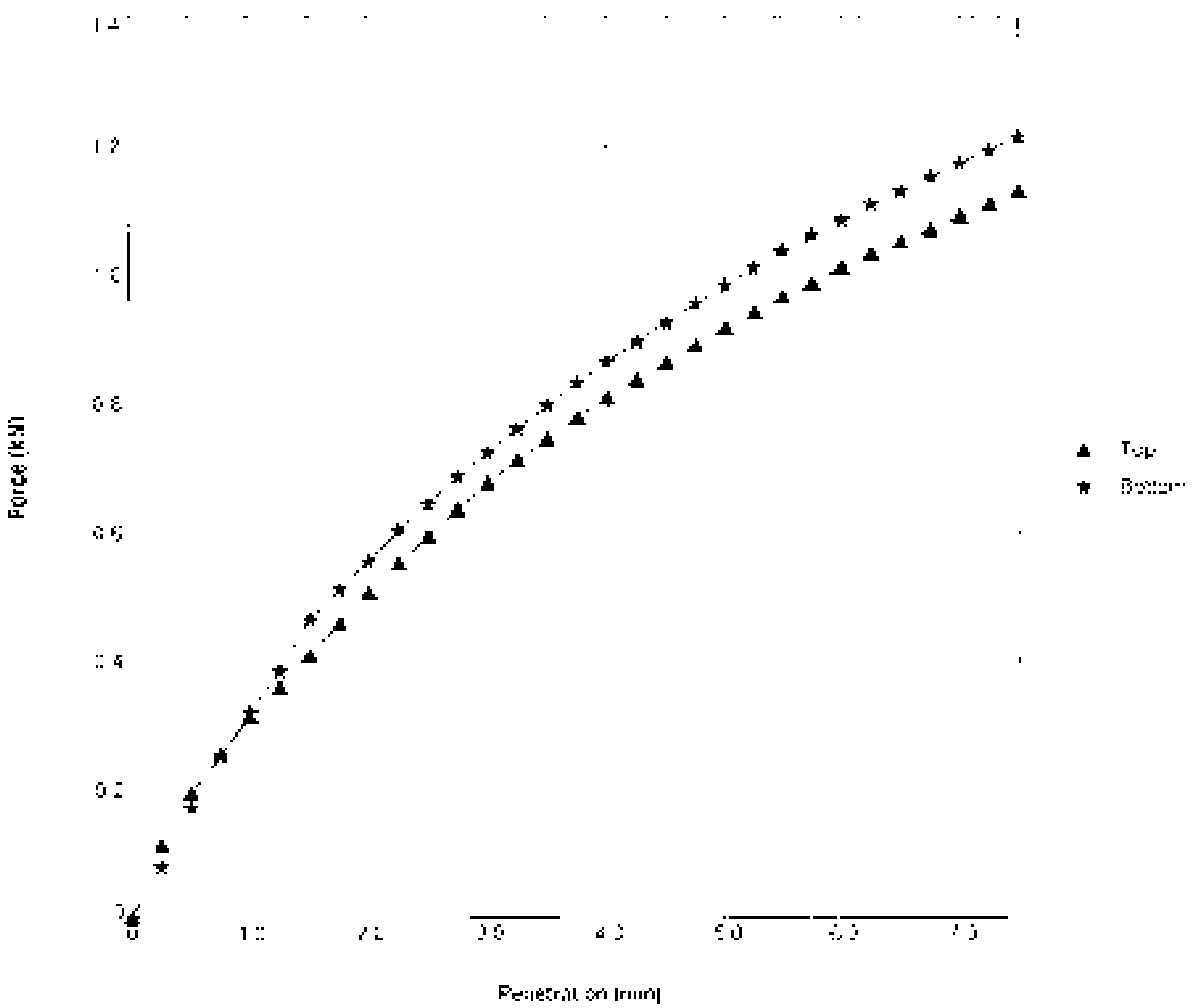
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP131** Sample No - **B10** Depth (m) - **3.60**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 28 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.93
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.52
Date Tested	01/10/2020	CBR Value (%)	Top 4.6 / Bottom 4.9
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed

Name

Page 1 of 1

AEG Contract No: **4251**

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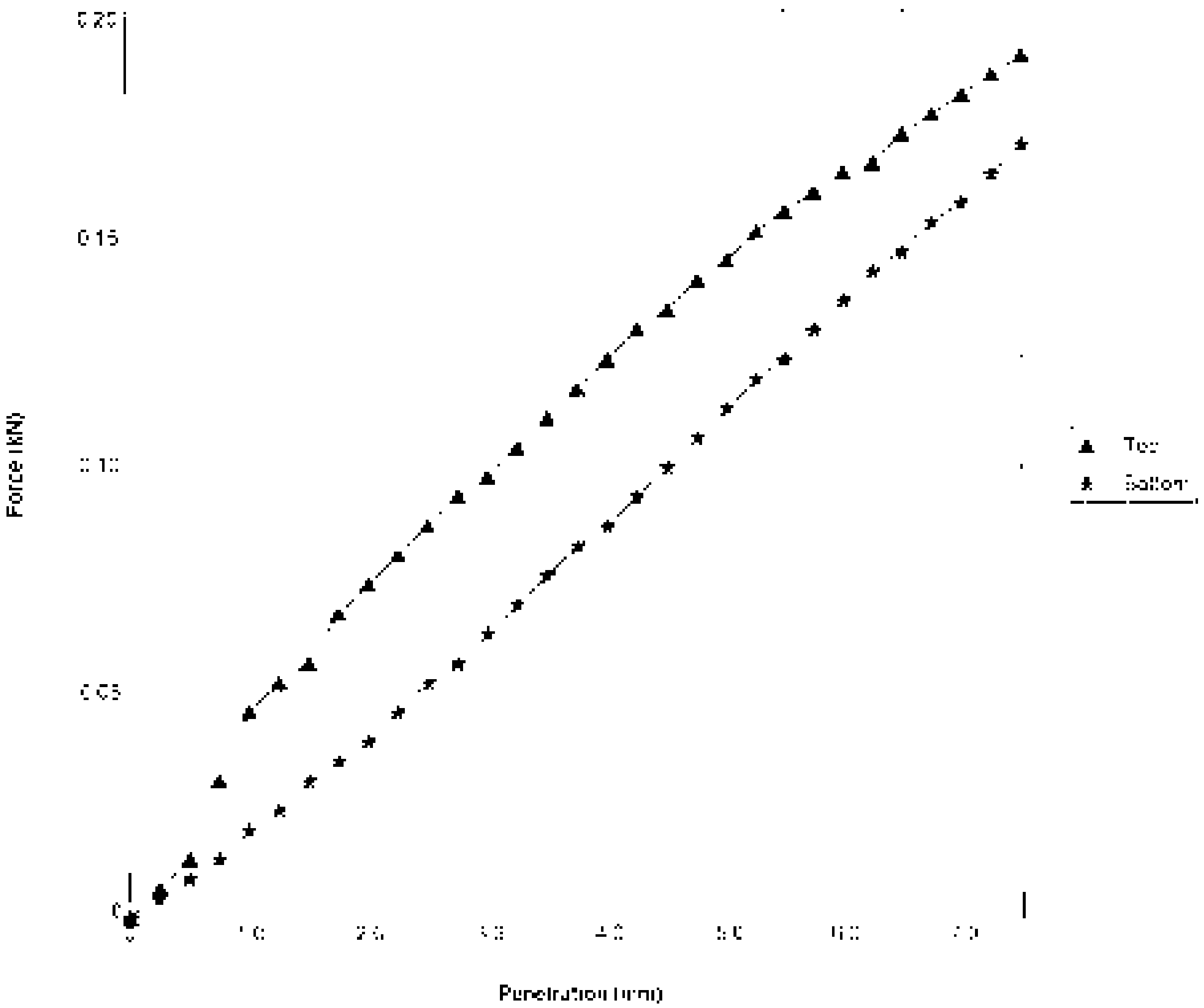
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP137** Sample No - **B7** Depth (m) - **2.00**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 26 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.92
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.51
Date Tested	15/10/2020	CBR Value (%)	Top 0.72 / Bottom 0.56
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Name: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed: [signature] Name: Page 1 of 1

Date Checked: Contract No: AEG Contract No: **4251**

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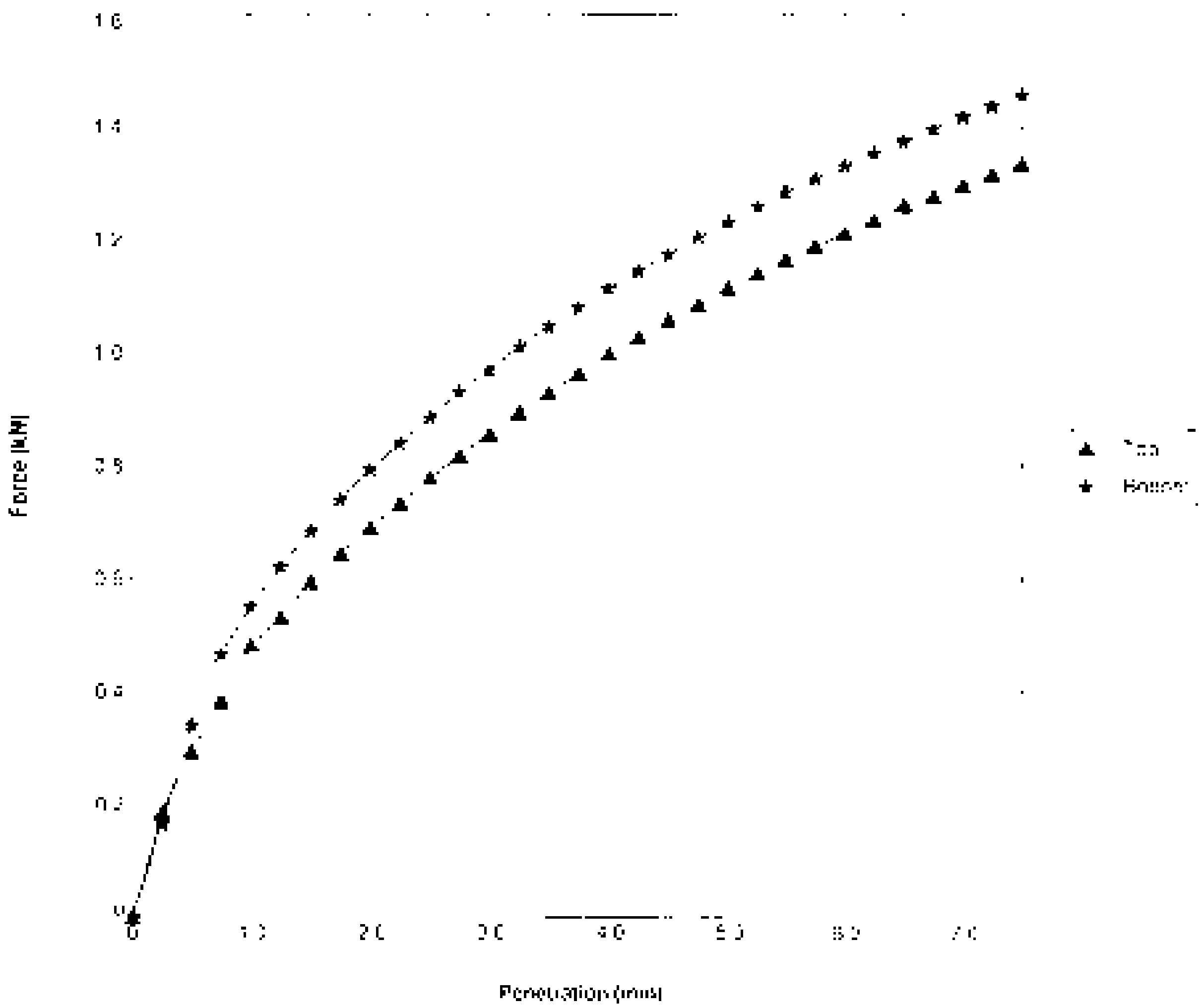
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No: **PRAIRIE_AUK TP145** Sample No - **B6** Depth (m) - **2.40**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 24 / Bottom 25
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	2.09
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.68
Date Tested	30/09/2020	CBR Value (%)	Top 5.9 / Bottom 6.7
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample preparation refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed: Name:

Page 1 of 1

Date of Issue: 23/10/2020

Certificate No: 20/4251 PRAIRIE_AUK TP145 B6 2.40

UKAS Certificate No: **4251**

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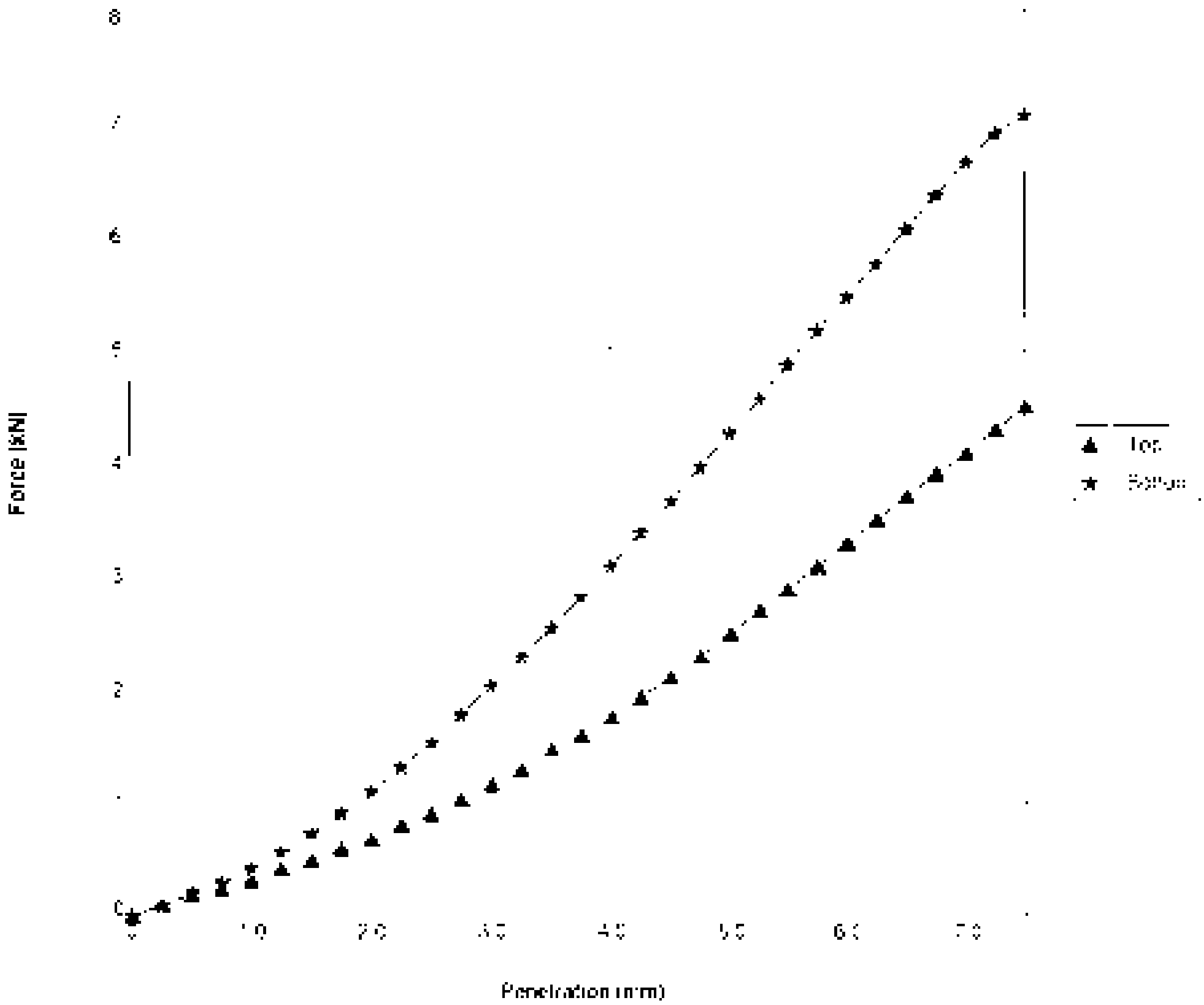
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP146C** Sample No - **B6** Depth (m):- **1.30**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	14.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 24 / Bottom 24
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.98
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.60
Date Tested	02/10/2020	CBR Value (%)	Top 13 / Bottom 21
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed: [signature]

Name:

Page 1 of 1

Date Issued: 09/10/2020

Certificate No:

AEG Contract No: **4251**

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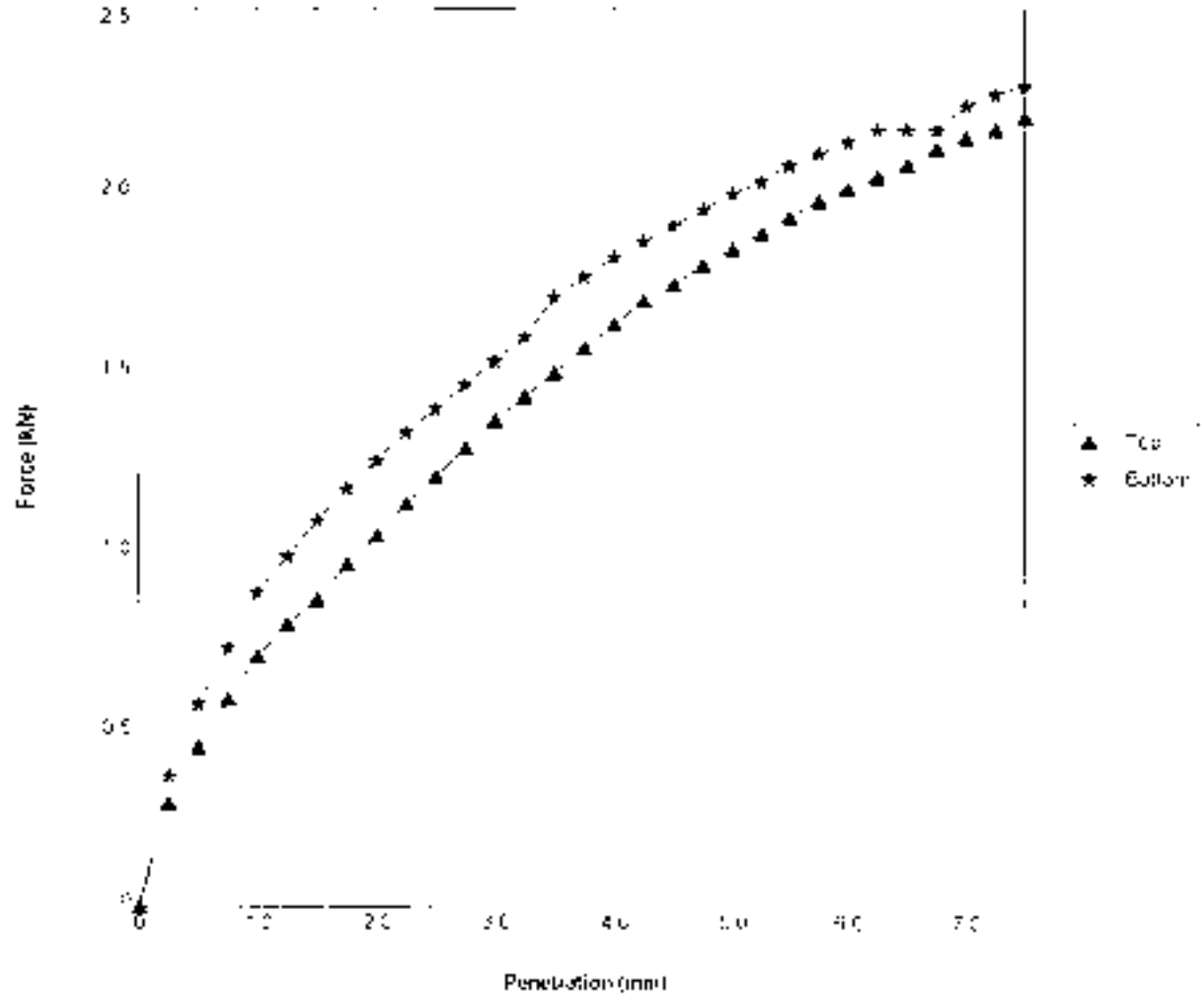
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No : **PRAIRIE AUK TP145C** Sample No - **B8** Depth (m) : **2.30**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 50 / Bottom 50
Correction Needed	No	Test Moisture Content (%)	Top 23 / Bottom 23
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	2.00
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.63
Date Tested	01/10/2020	CBR Value (%)	Top 9.2 / Bottom 10
Preparation Method	2.5kg Compaction		
Remarks			



For detailed description please refer to the accompanying Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Trees Development Corporation

Signed: MSow

Date Checked: 23.10.2020

Certificate No: 4251

UKAS 1367

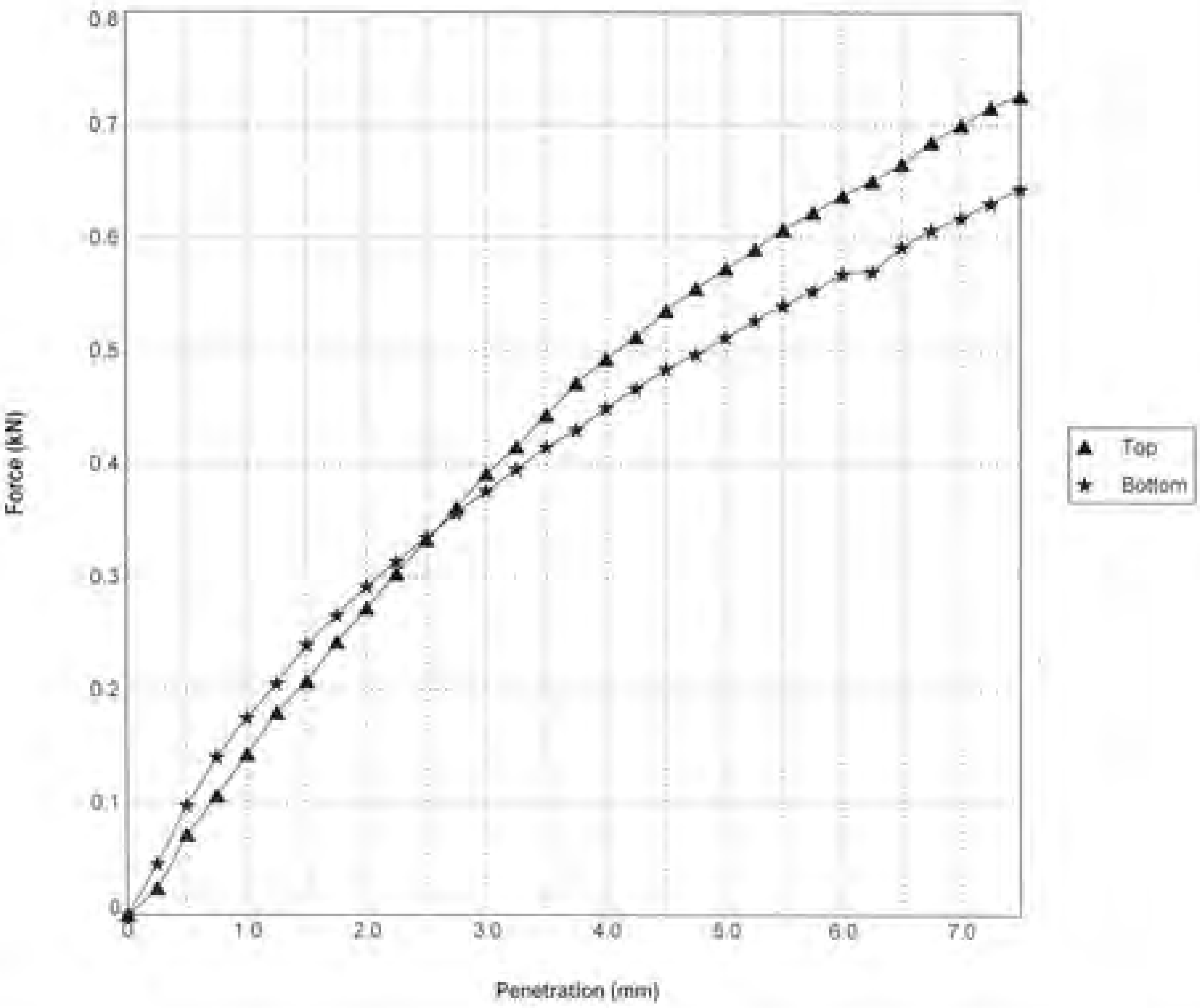
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No.- **PRAIRIE_AUK_TP149** Sample No.- **B5** Depth (m)- **2.20**

"As Received" Moisture Content (%) :		Surcharge (Kg) :	6
Retained on 20mm (%) :	0.0	Seating Load (N) :	Top 10 / Bottom 10
Correction Needed :	No	Test Moisture Content (%) :	Top 29 / Bottom 30
Soaking Time (Days) :	N/A	Bulk Density (Mg/m³) :	1.92
Swelling (mm) :	N/A	Dry Density (Mg/m³) :	1.49
Date Tested :	16/10/2020	CBR Value (%) :	Top 2.9 / Bottom 2.6
Preparation Method :	2.5kg Compaction		
Remarks :			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-		Page 1 of 1
Date of issue :- 30/10/2020	Certificate No :- CBR/4251/PRAIRIE_AUK_TP149/B5/2.20/1	AEG Contract No. :- 4251	UKAS TESTING 1367

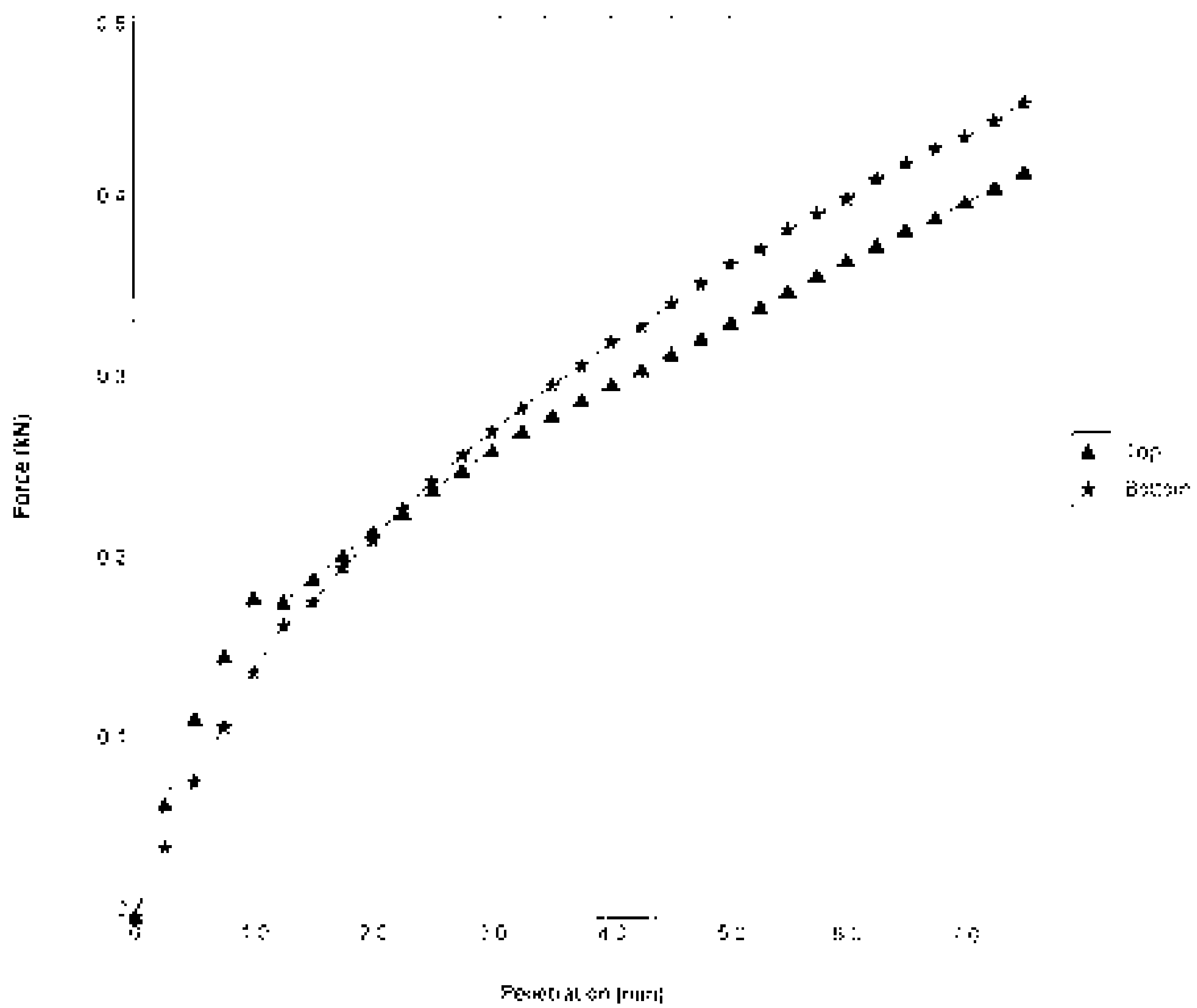
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP162** Sample No - **B6** Depth (m)- **2.50**

"As Received" Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 31 / Bottom 30
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.90
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.45
Date Tested	29/09/2020	CBR Value (%)	Top 1.8 / Bottom 1.8
Preparation Method	2.5kg Compaction		
Remarks			



Contract Title :- Prairie Site Ground Investigation Works

Client :- South Tees Development Corporation

Signed:

Date of Issue :-

Certificate No :-

4251

1367

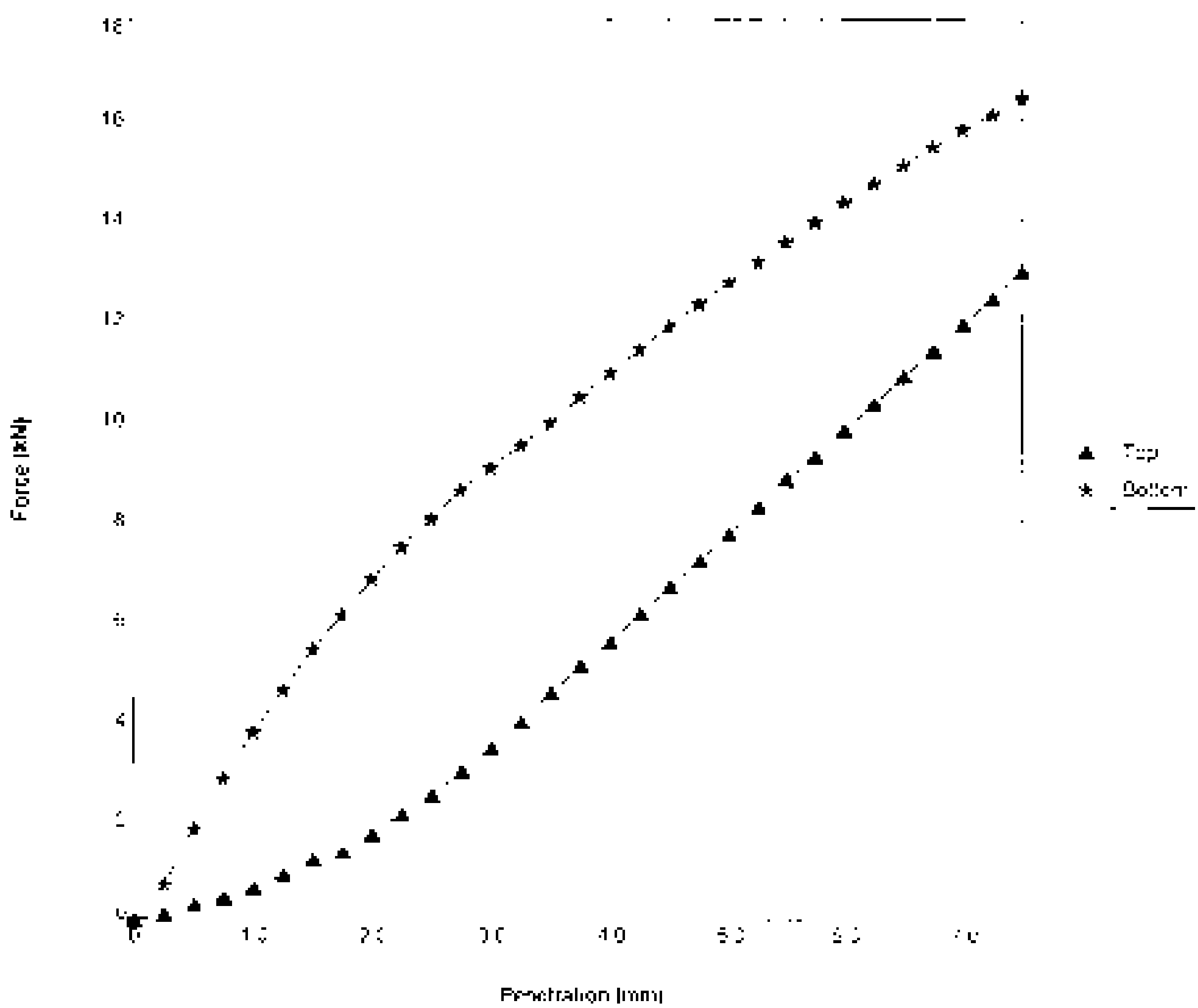
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP153** Sample No - B2 Depth (m)- 0.80

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	14.0	Seating Load (N)	Top 50 / Bottom 50
Correction Needed	No	Test Moisture Content (%)	Top 14 / Bottom 14
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.37
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.20
Date Tested	05/10/2020	CBR Value (%)	Top 39 / Bottom 64
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title:
Prairie Site Ground Investigation Works

Client:
South Tees Development Corporation

Signed: Name: Page 1 of 1

Date of Issue: 21/10/2020 Certificate No: CBR 4251 PRAIRIE_AUK_TP153 B2 0.80 AEG Contract No: **4251**

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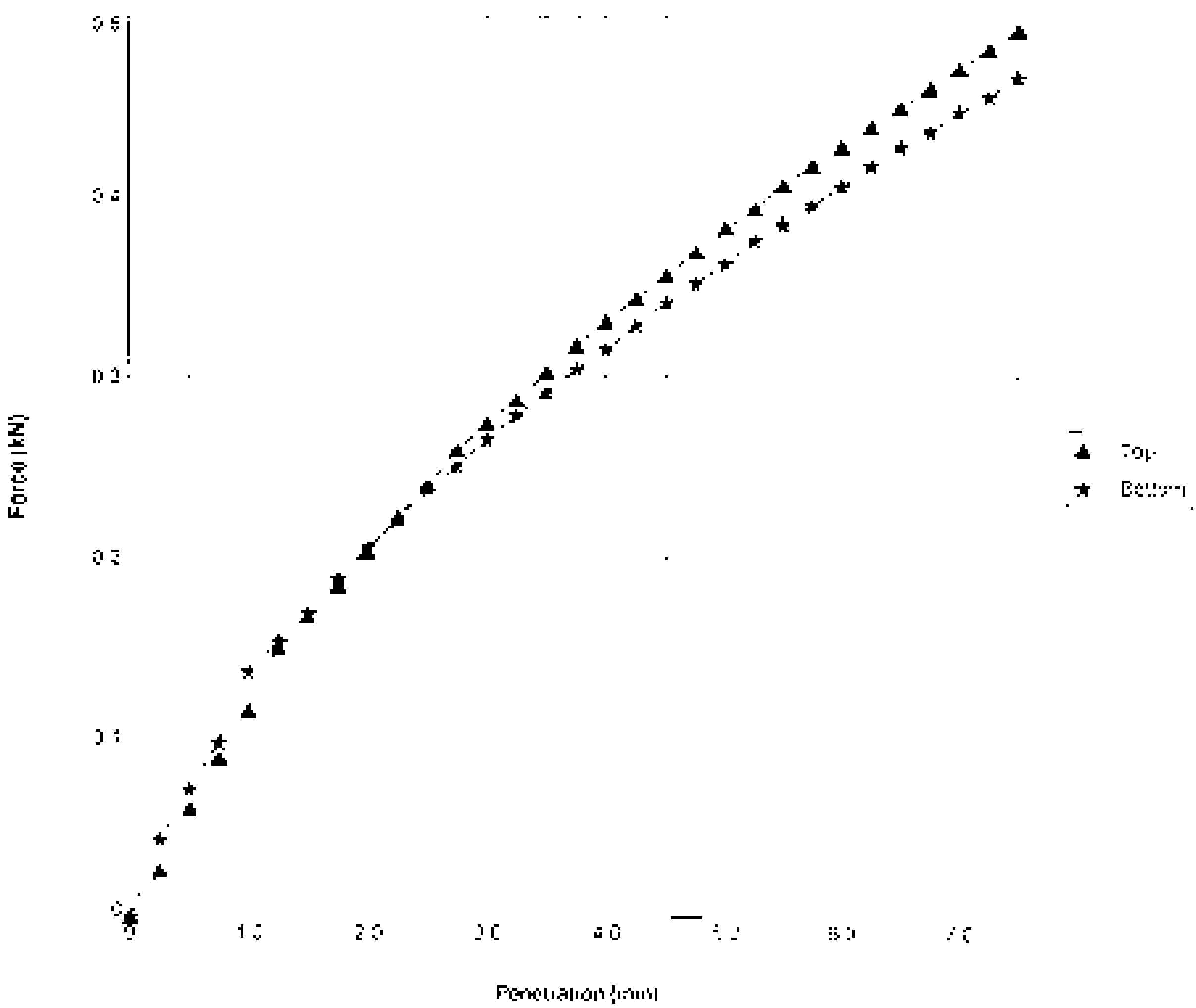
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP163** Sample No - **B5** Depth (m)- **1.70**

As Received Moisture Content (%)		Surcharge (Kg)	5
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 27 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.99
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.57
Date Tested	01/10/2020	CBR Value (%)	Top 1.9 / Bottom 1.8
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed:

Date Checked:

Certificate No:

AEG Contract No: 4251

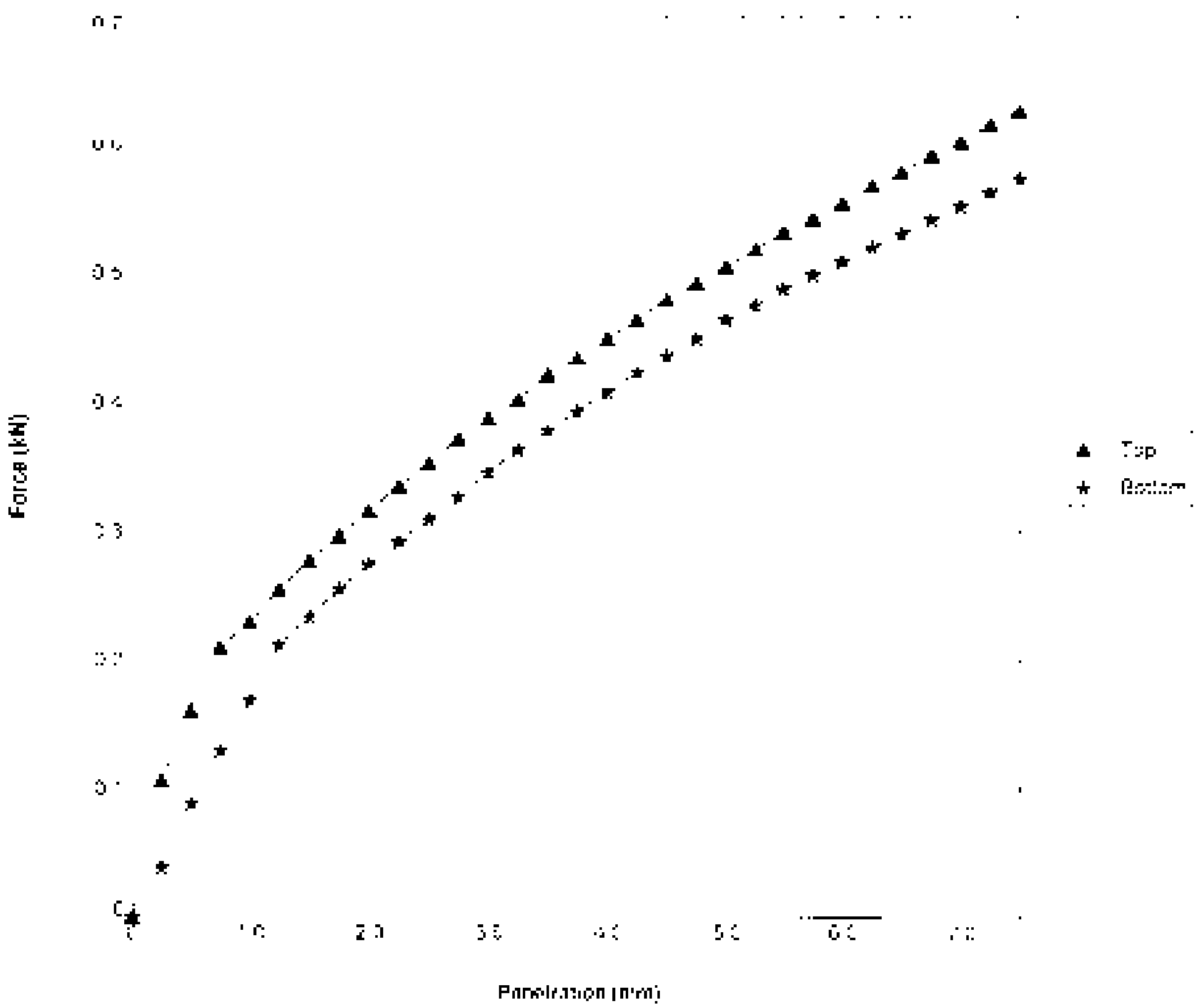
UKAS TESTING 1367

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP168** Sample No - **B7** Depth (m)- **1.60**

*As Received Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 29 / Bottom 30
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.92
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.48
Date Tested	30/09/2020	CBR Value (%)	Top 2.7 / Bottom 2.3
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description sheet

Contract Title - Prairie Site Ground Investigation Works

Client - South Tees Development Corporation

Signed: [signature] Name:

Date:

Contract No - Contract Ref - PRAIRIE_AUK_TP168 B7

AEG Contract No: 4251

UKAS 1367

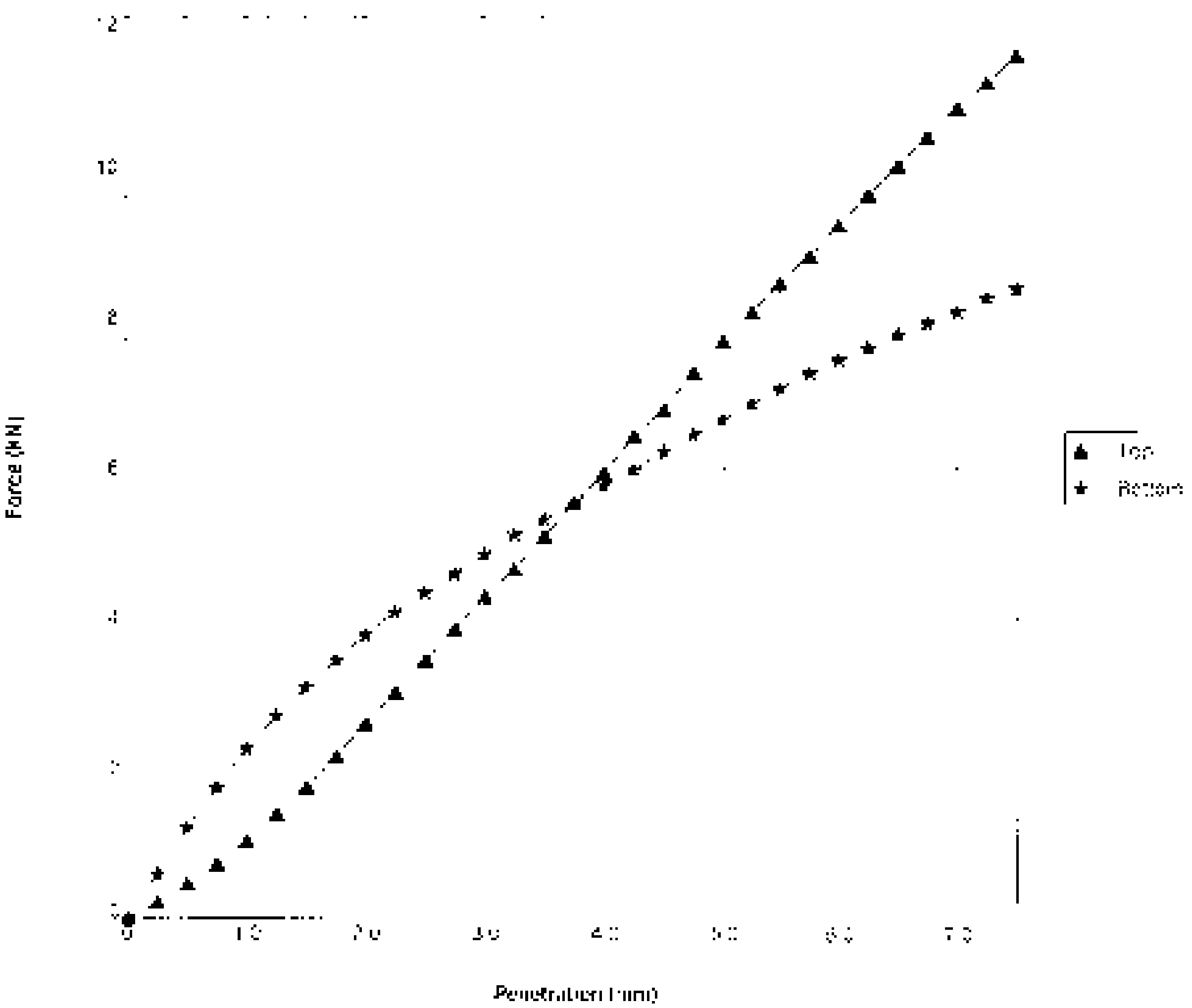
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE AUX TP173** Sample No - **B2** Depth (m) - **0.80**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	22.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 20 / Bottom 20
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.77
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.48
Date Tested :	30/09/2020	CBR Value (%)	Top 39 / Bottom 33
Preparation Method	2.5kg Compaction		
Remarks			



For a description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed:

Name:

Page 1 of 1

Date of Issue: 02/10/2020

Our Job/File No: CBR 4251 PRAIRIE AUX TP173 B2 0.80

AEG Contract No: 4251

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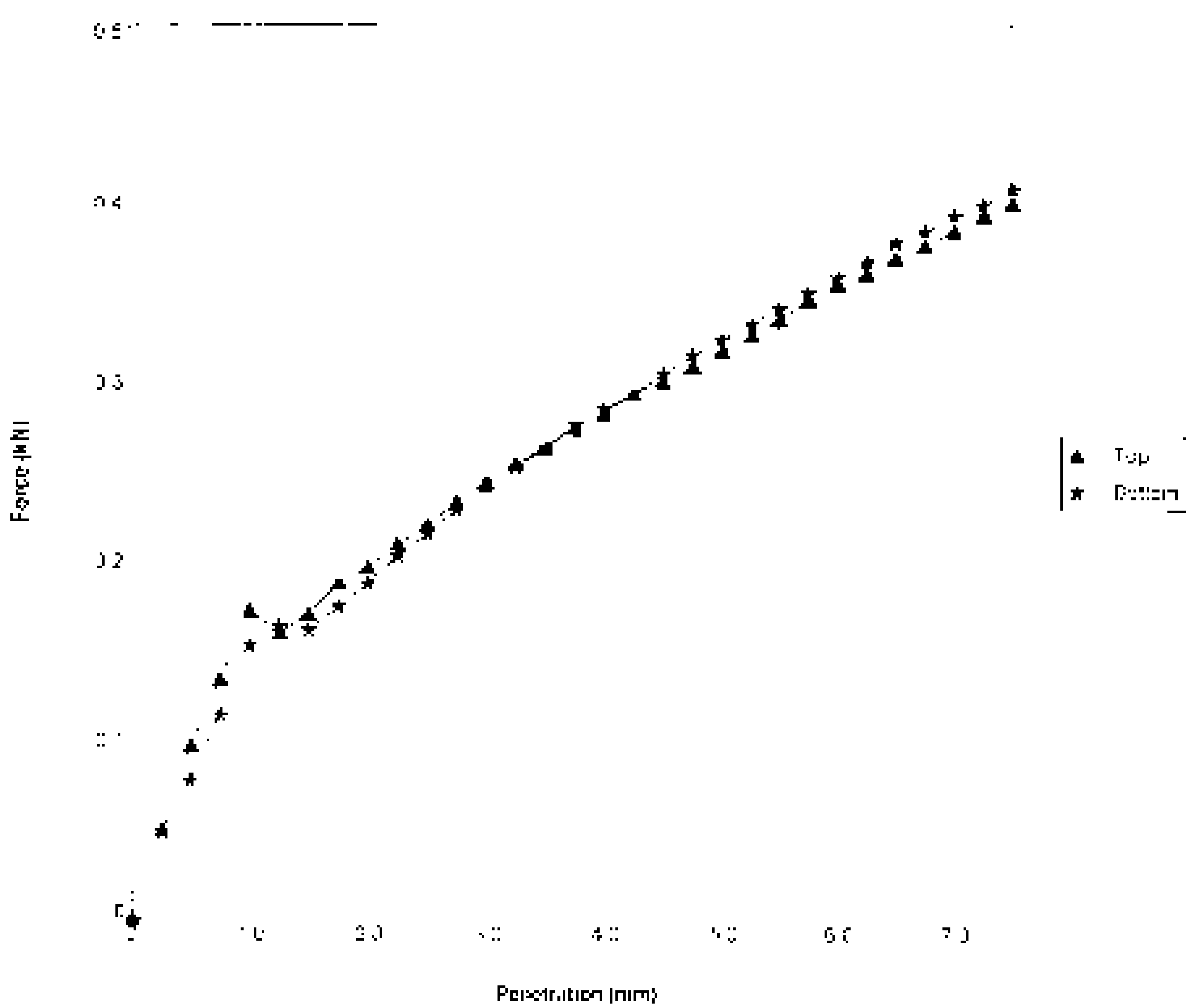
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No :- **PRAIRIE_AUK_TP176** Sample No :- **B5** Depth (m):- **2.00**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%) :	0.0	Seating Load (N)	Top 10 / Bottom 10
Correction Needed	No	Test Moisture Content (%)	Top 26 / Bottom 25
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.97
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.56
Date Tested	29/09/2020	CBR Value (%)	Top 1.7 / Bottom 1.6
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title : Prairie Site Ground Investigation Works

Client : South Tees Development Corporation

Signed : Name :

Page 1 of 1

Date of Issue : Certificate No : AEG Contract No : **4251**

UKAS TESTING 1357

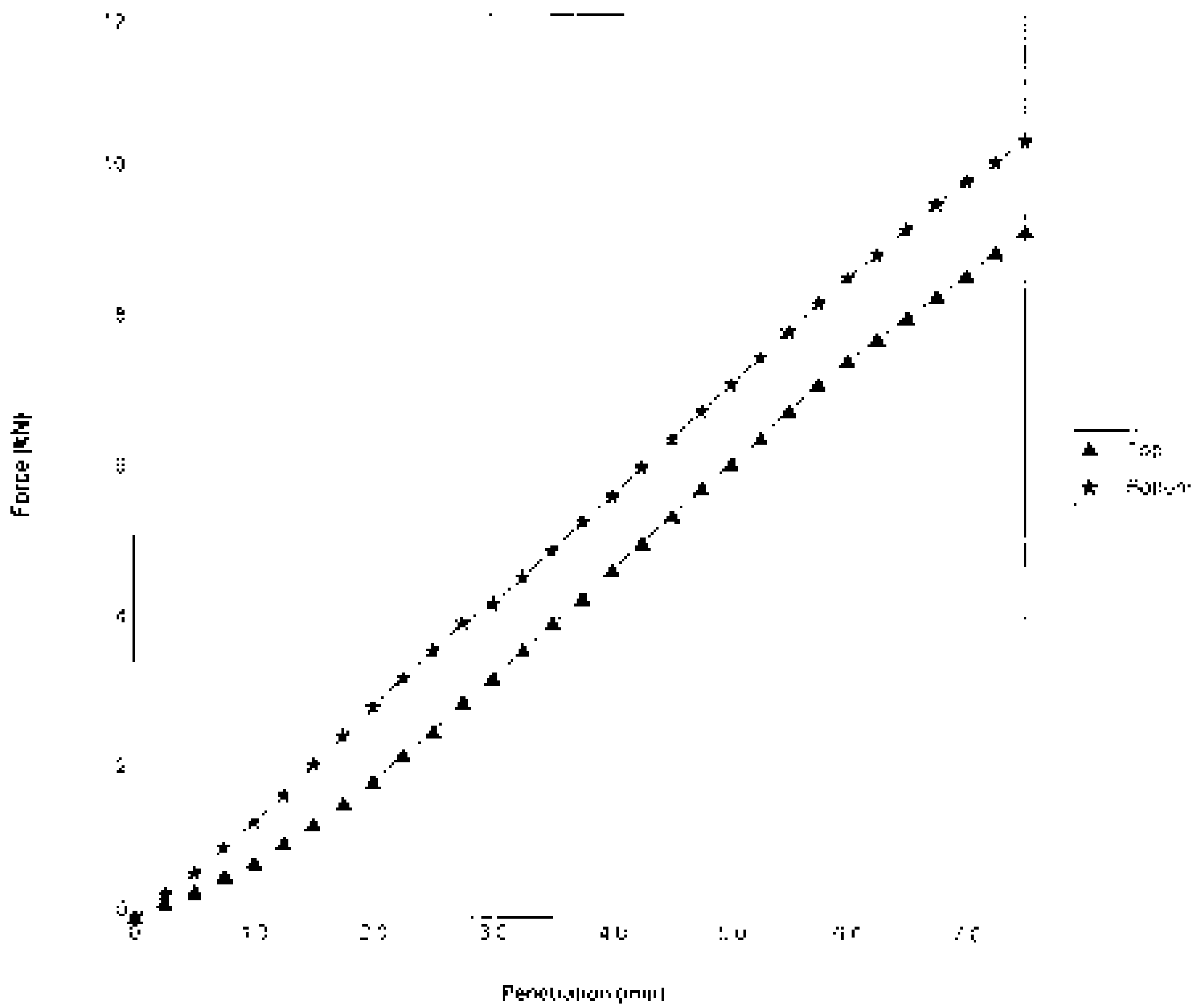
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP178** Sample No - B2 Depth (m) - **0.60**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	11.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 33 / Bottom 34
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.57
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.22
Date Tested	05/10/2020	CBR Value (%)	Top 30 / Bottom 35
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title : Prairie Site Ground Investigation Works

Client : South Fens Development Corporation

Signed :

Approved :

Page 1 of 1

Date of Issue :

Certificate No :

Accredited Testing : 4251

1367

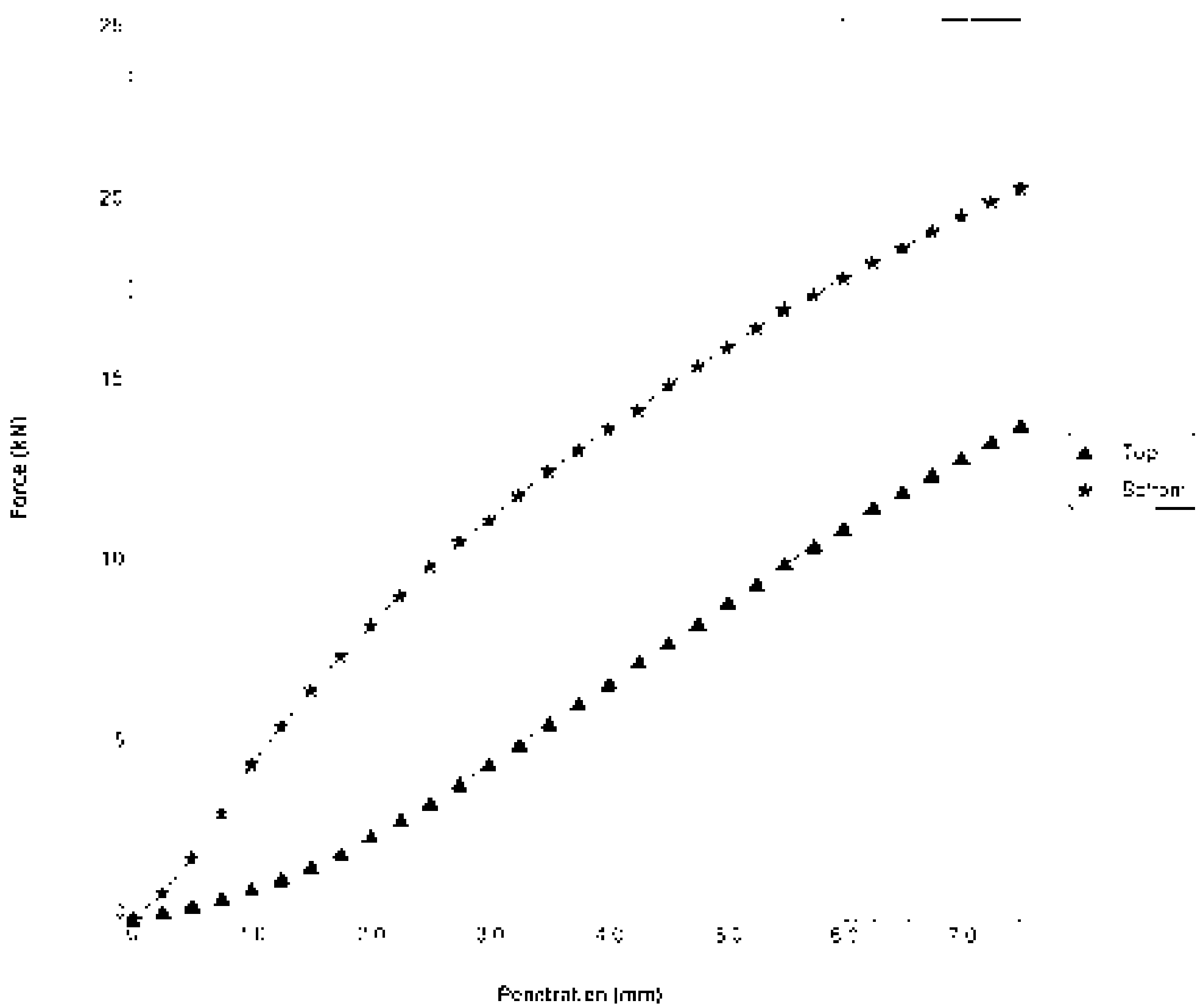
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No : **PRAIRIE_AUK_TP181** Sample No : **B2** Depth (m) : **0.50**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	25.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 15 / Bottom 15
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.75
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.52
Date Tested	02/10/2020	CBR Value (%)	Top 44 / Bottom 80
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed: Date of Issue: Checked: Checked by / Report No: Page 1 of 1

AEG Contract No: **4251**

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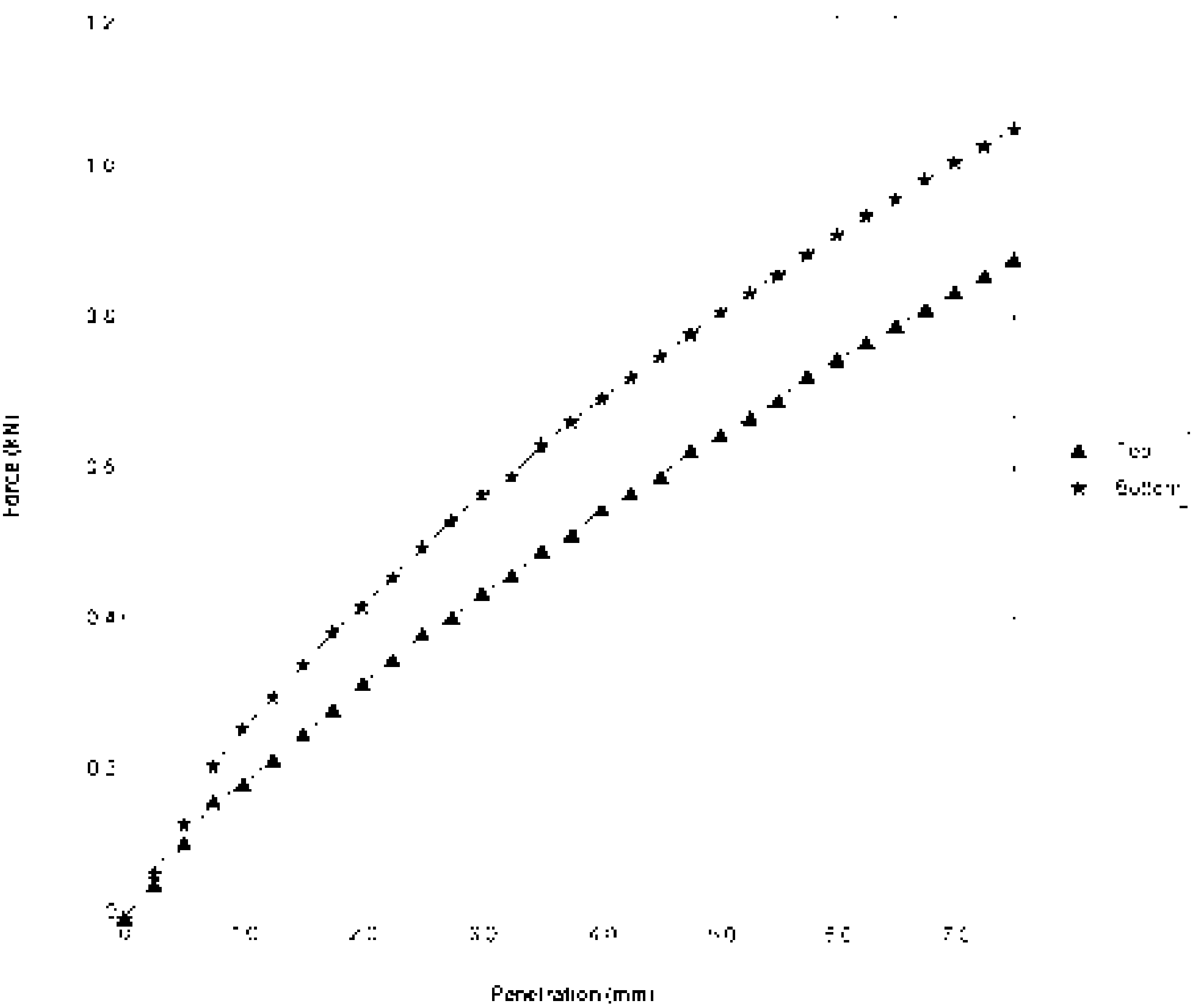
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP181** Sample No - **B6** Depth (m) - **2.00**

"As Received" Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 50 / Bottom 50
Correction Needed	No	Test Moisture Content (%)	Top 23 / Bottom 23
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	2.04
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.65
Date Tested	02/10/2020	CBR Value (%)	Top 3.2 / Bottom 4.0
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

Signed:

Date Checked:

AEG Contract No: **4251**

1367

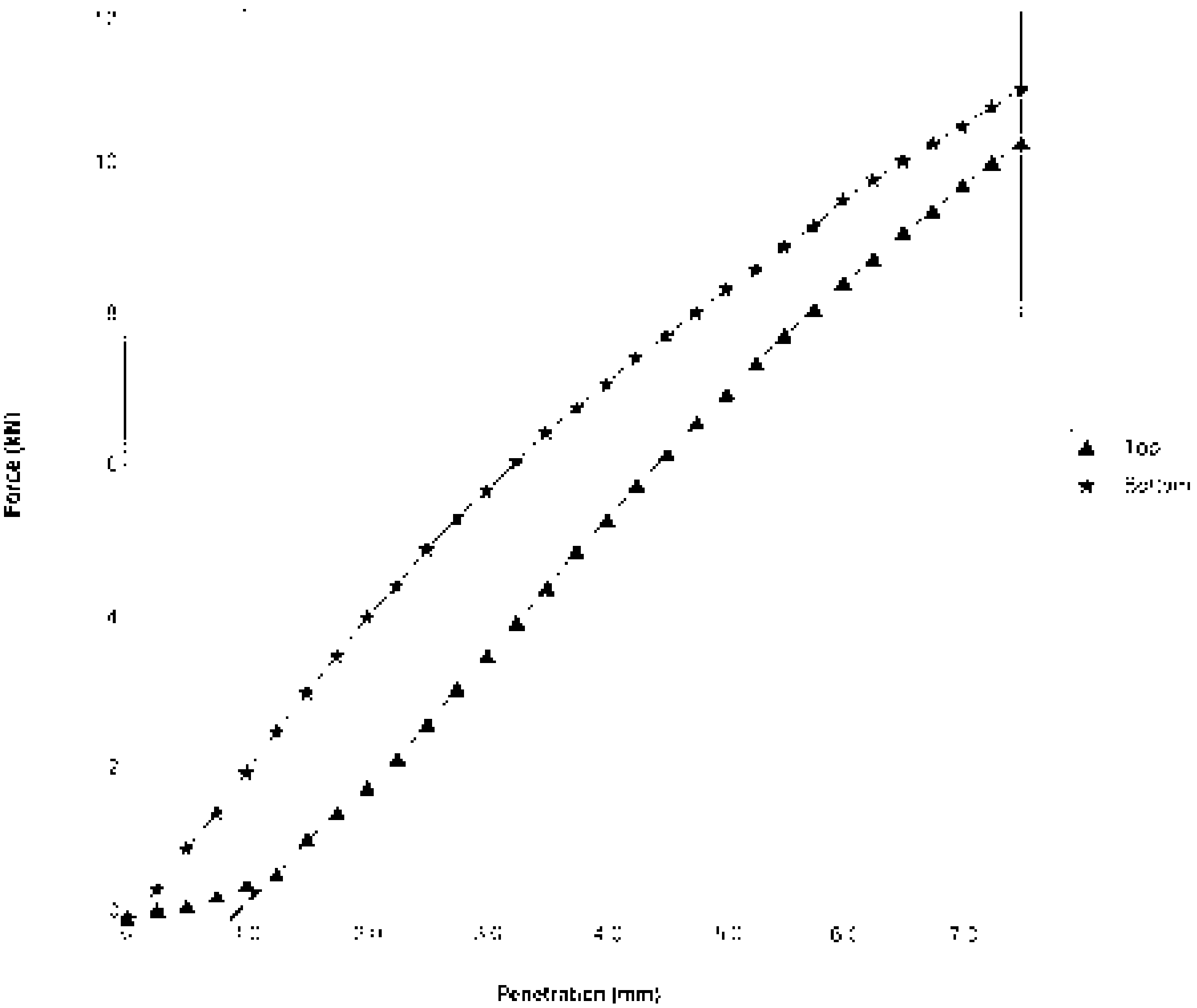
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - **PRAIRIE_AUK_TP182** Sample No - **B2** Depth (m)- **0.60**

"As Received" Moisture Content (%)		Surcharge (Kg)	10
Retained on 20mm (%)	17.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	Yes	Test Moisture Content (%) :	Top 16 / Bottom 16
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.49
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.28
Date Tested	25/09/2020	CBR Value (%)	Top 40 / Bottom 42
Preparation Method	2.5kg Compaction		
Remarks			



For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title : Prairie Site Ground Investigation Works

Client : South Tees Development Corporation

Signed : [signature]

Name :

Page 1 of 1

Date of Issue :

Certificate No : CBR ... PRAIRIE_AUK_TP182 ...

AEG Contract No : 4251

1367

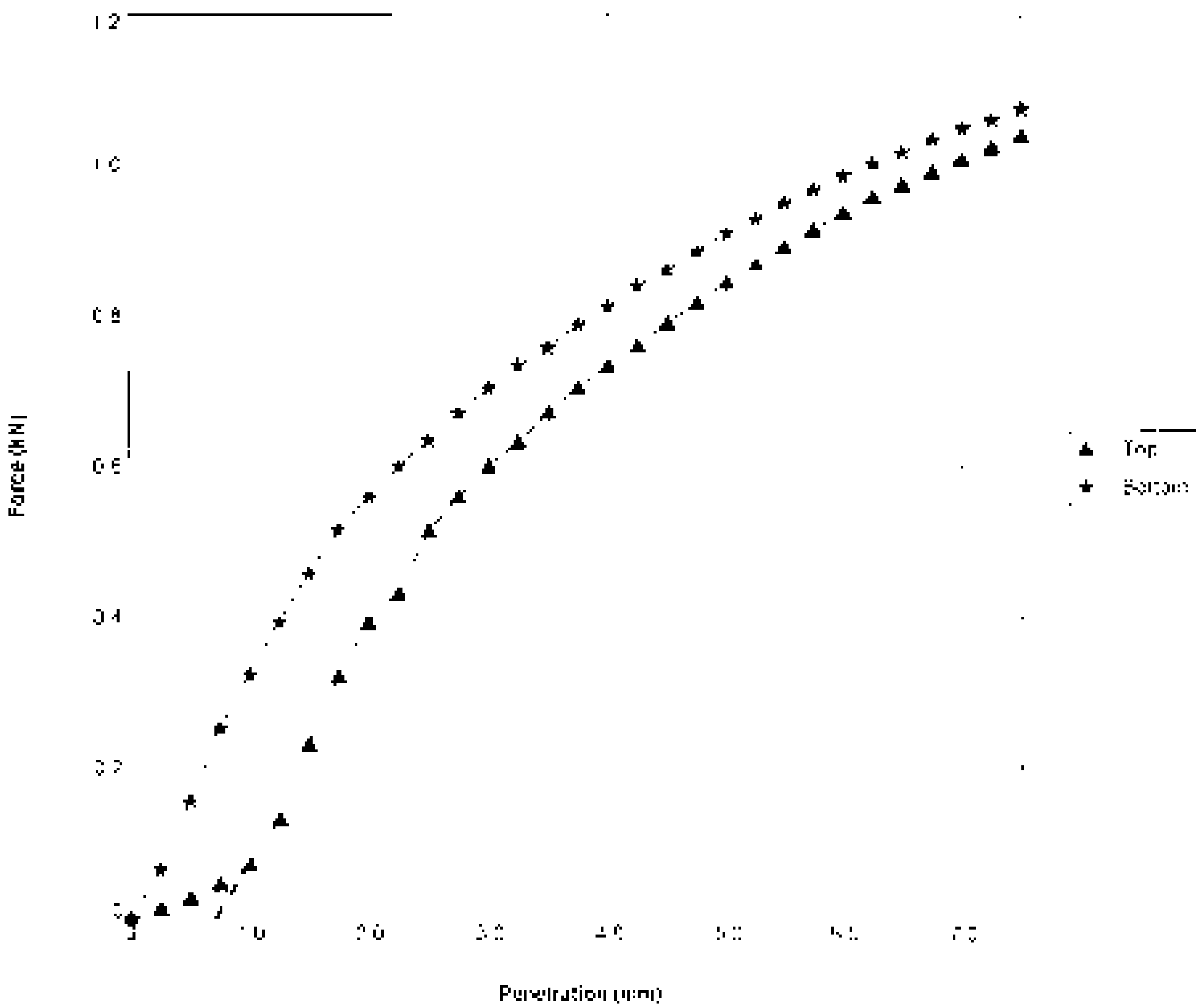
ALLIED EXPLORATION & GEOTECHNICS LIMITED

DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - PRAIRIE_AUK_TP182 Sample No - B5 Depth (m) - 1.60

'As Received' Moisture Content (%)		Surcharge (Kg)	6
Retained on 20mm (%)	0.0	Seating Load (N)	Top 10 / Bottom 50
Correction Needed	Yes	Test Moisture Content (%)	Top 28 / Bottom 27
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	1.94
Swelling (mm)	N/A	Dry Density (Mg/m³)	1.52
Date Tested	16/10/2020	CBR Value (%)	Top 4.6 / Bottom 4.8
Preparation Method	2.5kg Compaction		
Remarks			



Contract Title: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

4251

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ALLIED EXPLORATION & GEOTECHNICS LIMITED

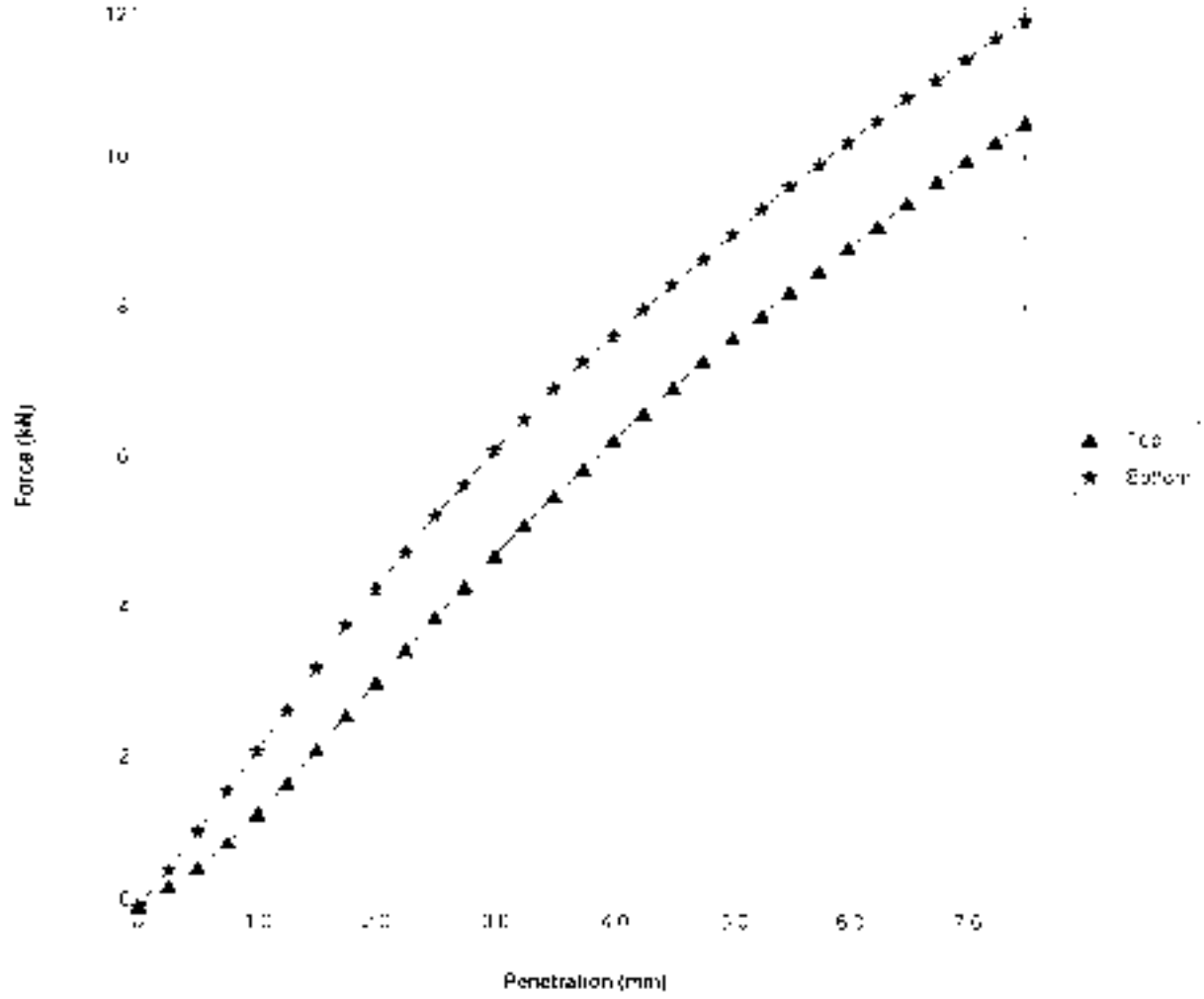
DETERMINATION OF THE CALIFORNIA BEARING RATIO

BS 1377 : Part 4 : 1990 and Part 2 : Clause 3.2 : 1990

Exploratory Hole No - PRAIRIE_AUK_TP189 Sample No - **B2** Depth (m) **0.50**

"As Received" Moisture Content (%)		Surcharge (Kg)	8
Retained on 20mm (%)	6.0	Seating Load (N)	Top 250 / Bottom 250
Correction Needed	No	Test Moisture Content (%)	Top 17 / Bottom 17
Soaking Time (Days)	N/A	Bulk Density (Mg/m³)	2.55
Swelling (mm)	N/A	Dry Density (Mg/m³)	2.18
Date Tested	01/10/2020	CBR Value (%)	Top 38 / Bottom 45
Preparation Method	2.5kg Compaction		

Remarks



Prairie Site Ground Investigation Works

South Tees Development Corporation

4251

1067

LABORATORY TESTING ENCLOSURE 8

Determination of One Dimensional Consolidation Properties

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ONE DIMENSIONAL CONSOLIDATION PROPERTIES

BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH103	**Sample**	**U2**	**Depth (m)**	**2.50m**
Specimen Type	**Undisturbed**	**Orientation**	**Vertical**	**Specific Depth (m)**	**2.55m**

	INITIAL	FINAL			
Height	18.7	16.4	mm	Particle Density (Assumed)	2.70
Diameter	74.74	74.74	mm		
Moisture Content	30.0	25.6	%	Degree of Saturation (%)	98.2
Wet Density	1.92	2.07	Mg/m^3		
Dry Density	1.48	1.65	Mg/m^3	Test Duration (Days)	6
				Date Tested	07/10/2020

Square Root of Time Fitting Method

Pressure Range kN/m2	Mv m2/MN	Cv m2/yr	Temp C	Vn.ss Ratio
Initial				0.825
0 - 50	0.828	.	21	0.749
50 - 100	0.438	2.25	21	0.711
100 - 50	0.056	Swelling	20	0.716
50 - 100	0.056	3.34	20	0.710
100 - 200	0.289	2.16	20	0.651
200 - 400	0.191	1.57	20	0.598

For sample description please refer to the Laboratory Sample Description Sheet

Contract Title: **Prairie Site Ground Investigation Works**

Client: **South Tees Development Corporation**

Signed: mselr

Name: M. SELKIRK

Date of Issue: 08.10.2020

Certificate No: 4251/A

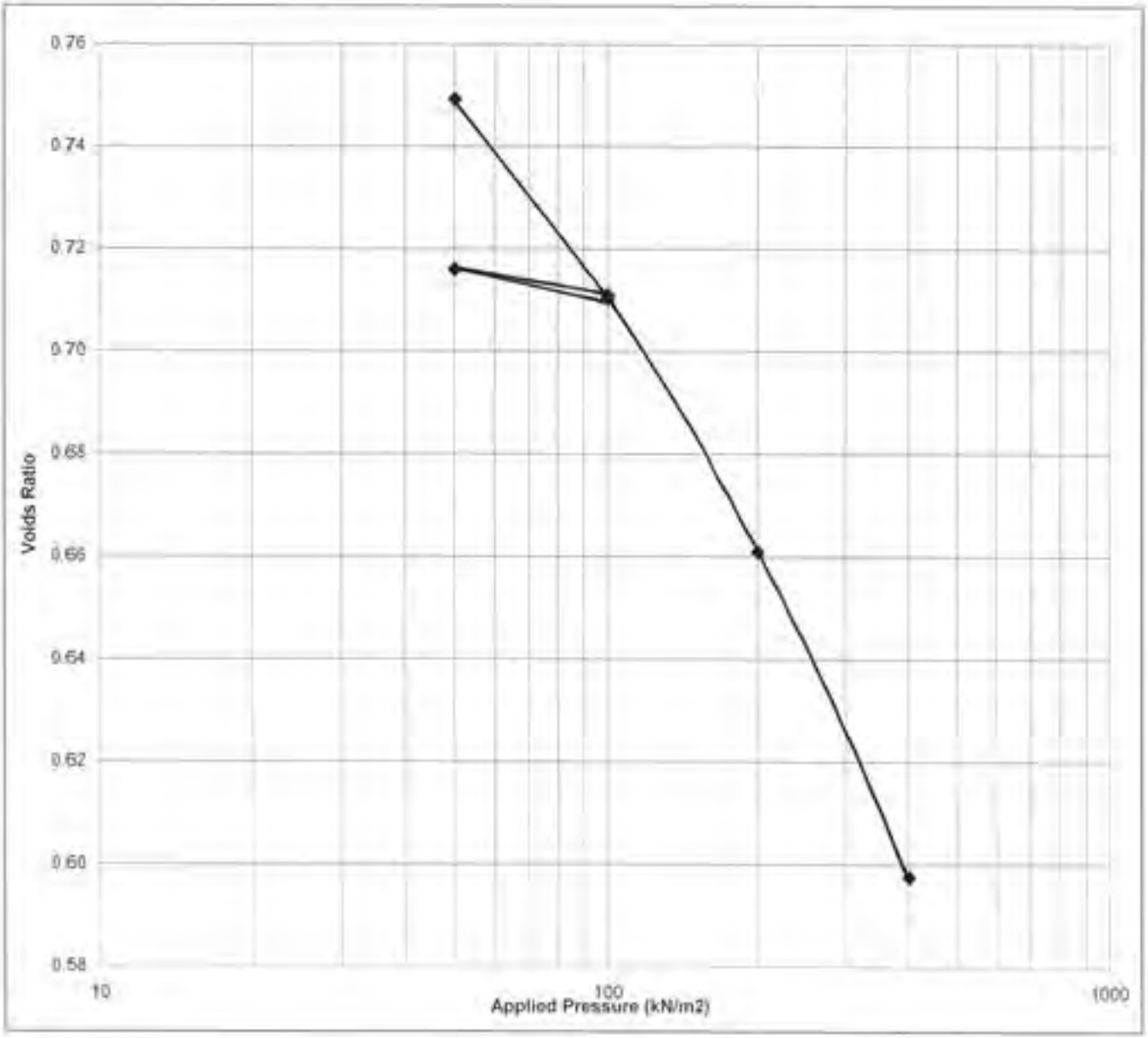
AEG Contract No: 4251

UKAS 1387

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ONE DIMENSIONAL CONSOLIDATION PROPERTIES
BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH103	**Sample**	**U2**	**Depth (m)**	**2.50m**
Specimen Type	**Undisturbed**	**Orientation**	**Vertical**	**Specific Depth (m)**	**2.55m**



Contract Title:	Client:
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed:	Name: M. SELKIRK	Page 2 of 2	
Date of issue: 16/10/2020	Certificate No: 4251/A	AEG Contract No: 4251	UKAS 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ONE DIMENSIONAL CONSOLIDATION PROPERTIES

BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH106	**Sample**	**U2**	**Depth (m)**	**5.50m**
Specimen Type	**Undisturbed**	**Orientation**	**Vertical**	**Specific Depth (m)**	**5.50m**

	INITIAL	FINAL			
Height	18 6	16 7	mm	Particle Density (Assumed)	2 70
Diameter	74 91	74 91	mm		
Moisture Content	22 4	18 5	%	Degree of Saturation (%)	99 5
Wet Density	2 06	2 24	Mg/m^3		
Dry Density	1 68	1 89	Mg/m^3	Test Duration (Days)	6
				Date Tested	07/10/2020

Square Root of Time Fitting Method

Pressure Range kN/m2	Mv m2/MN	Cv m2/yr	Temp C	Voids Ratio
Initial				0 603
0 - 100	0 374	,	21	0 549
100 - 200	0 120	7 80	21	0 520
200 - 100	0 012	Swelling	20	0 522
100 - 200	0 018	13 47	20	0 519
200 - 400	0 119	6 40	20	0 483
400 - 800	0 070	8 83	20	0 441

For sample description please refer to the Laboratory Sample Description Sheet

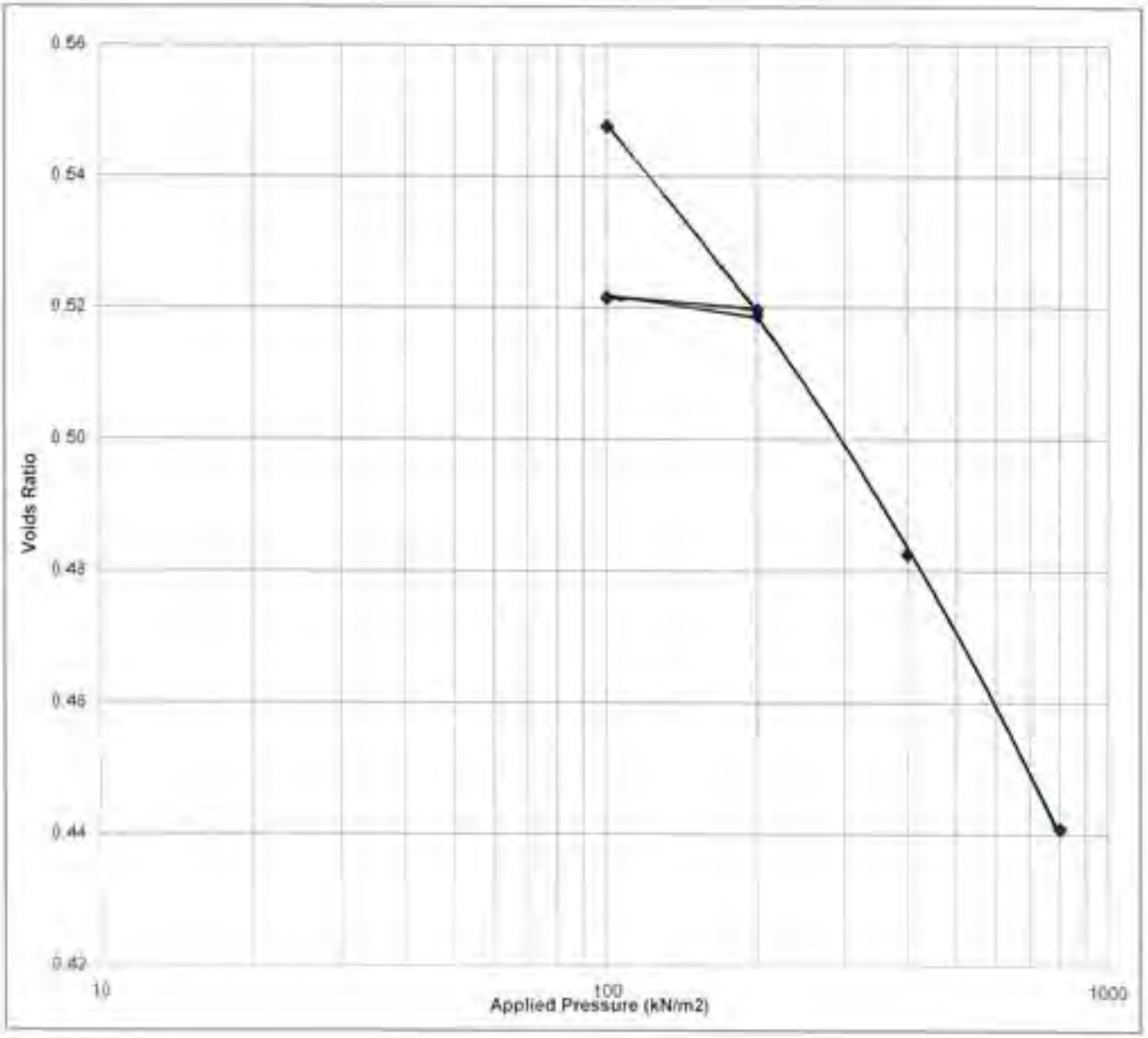
Contract Title	Client
Prairie Site Ground Investigation Works	**South Tees Development Corporation**

Signed	Name		
	M SELKIRK	Page 1 of 2	
Date of Issue	Certificate No	AGS Company No	
7/10/2020	4251/B	4251	1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

ONE DIMENSIONAL CONSOLIDATION PROPERTIES
BS 1377 : PART 5 : 1990 : CLAUSE 3

Exploratory Hole No	PRAIRIE_AUK_BH106	Sample	U2	Depth (m)	5.50m
Specimen Type	Undisturbed	Orientation	Vertical	Specific Depth (m)	5.50m



Contract Title:	Client:
Prairie Site Ground Investigation Works	South Tees Development Corporation

Signed	Name:	Page 2 of 2
	M. SELKIRK	

Date of Issue:	Certificate No:	AEG Contract No:
18/10/2020	4251/B	4251

UKAS TESTING
1367

LABORATORY TESTING ENCLOSURE 9

Shear Strength by Hand Vane

ALLIED EXPLORATION & GEOTECHNICS LIMITED

[illegible]

DETERMINATION OF SHEAR STRENGTH BY HAND VANE

Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	Vane Shear Strength (kPa)	Remarks
PRAIRE_AUK_BH104	8.50	U8	8.50	>130	Reading exceeded apparatus limits
PRAIRE_AUK_BH104	8.50	U8	8.95	>130	Reading exceeded apparatus limits
PRAIRE_AUK_BH103	2.50	U2	2.50	109	
PRAIRE_AUK_BH103	2.50	U2	2.95	94	
PRAIRE_AUK_BH107	4.50	U7	4.50	65	
PRAIRE_AUK_BH108	4.50	U7	4.95	87	
PRAIRE_AUK_BH103	1.20	U6	1.20	41	
PRAIRE_AUK_BH103	1.20	U6	1.65	>130	Reading exceeded apparatus limits
PRAIRE_AUK_BH102	5.00	U19	5.00	42	
PRAIRE_AUK_BH109	5.00	U19	5.45	82	

For description of sample please refer to the Laboratory Sample Description Sheet

Contract Title :- Prairie Site Ground Investigation Works	Client :- South Tees Development Corporation

Signed :-	Name :-	Page 1 of 1
Date of issue :- 03/11/2020	Certificate No :- HSV/4251/1	AEG Contract No :- 4251

LABORATORY TESTING ENCLOSURE 10

Undrained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement

ALLIED EXPLORATION & GEOTECHNICS LIMITED

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

BS 1377 : Part 7 : Clauses 8 & 9 : 1990 Part 2 Clause 3.2

Exploratory Hole	Sample ID Depth (m)	Sample ID Type	Specific Depth (m)	Diameter (mm)	Length (mm)	Prep Method	Stage No.	Initial Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Membrane Thickness (mm)	Membrane Correction (kPa)	Cell Pressure (kPa)	Corrected Deviator Stress (kPa)	Failure Strain (%)	Mode of Failure	cu (kPa)	Date Tested
PRAIRIE_AUK_BH101	3.00	U2	3.02	103.6	209.5	UNDISTURBED	1	32.7	1.95	1.47	0.3	1.10	60	52	20.0	P	26	17/06/2020
PRAIRIE_AUK_BH101	5.00	U7	5.18	104.0	211.0	UNDISTURBED	1	32.9	1.93	1.46	0.3	0.79	80	63	13.0	P	32	17/06/2020
PRAIRIE_AUK_BH101	8.00	U12	8.01	103.0	210.0	UNDISTURBED	1	27.3	1.98	1.55	0.4	0.94	110	87	11.0	BR	43	17/06/2020
PRAIRIE_AUK_BH101	11.00	U18	11.01	104.7	210.7	UNDISTURBED	1	16.1	2.19	1.89	0.9	0.85	140	251	14.5	P	125	17/06/2020
PRAIRIE_AUK_BH103	2.50	U2	2.80	103.5	210.4	UNDISTURBED	1	31.1	1.94	1.48	0.3	1.10	50	84	20.0	P	42	06/10/2020
PRAIRIE_AUK_BH103	4.50	U6	4.56	103.7	211.0	UNDISTURBED	1	26.4	1.97	1.56	0.4	0.88	100	147	10.0	C	74	06/10/2020
PRAIRIE_AUK_BH103	7.00	U14	7.02	102.9	210.8	UNDISTURBED	1	27.4	1.97	1.55	0.3	0.43	150	106	6.0	BR	53	06/10/2020
PRAIRIE_AUK_BH103	10.00	U21	10.25	103.5	211.7	UNDISTURBED	1	17.2	2.07	1.77	0.3	0.92	200	185	16.0	C	93	06/10/2020
PRAIRIE_AUK_BH104	5.50	U2	5.53	101.8	211.5	UNDISTURBED	1	25.8	1.92	1.53	0.4	0.58	110	230	6.0	BR	115	06/10/2020
PRAIRIE_AUK_BH106	5.50	U2	5.57	103.3	210.1	UNDISTURBED	1	23.0	2.06	1.68	0.3	1.08	110	136	19.5	C	68	06/10/2020
PRAIRIE_AUK_BH106	8.50	U6	8.60	104.6	211.2	UNDISTURBED	1	14.3	2.25	1.97	0.4	1.24	175	502	16.5	C	251	06/10/2020
PRAIRIE_AUK_BH107	3.00	U2	3.00	102.6	212.7	UNDISTURBED	1	29.9	1.95	1.50	0.4	1.36	60	51	18.0	P	25	10/07/2020
PRAIRIE_AUK_BH107	6.00	U7	6.06	103.4	211.1	UNDISTURBED	1	23.6	2.05	1.66	0.3	1.01	100	134	18.0	BR	67	13/07/2020
PRAIRIE_AUK_BH109	3.00	U13	3.05	103.2	211.2	UNDISTURBED	1	23.6	2.04	1.65	0.3	0.82	60	142	13.5	BR	71	13/07/2020
PRAIRIE_AUK_BH110	3.00	U2	3.03	103.1	211.1	UNDISTURBED	1	30.4	1.91	1.47	0.3	0.66	60	71	10.0	BR	36	13/07/2020

For description of sample please refer to the Laboratory Sample Description Sheet. Please note the rate of strain was 2% per minute and the orientation of the test specimen was vertical. Latex membrane used.

Date of issue - 23/10/2020	Certificate No - TXL/4251/1	Signed -	Name -	Page 1 of 2
Client - South Tees Development Corporation	Contract Title - Prairie Site Ground Investigation Works			AEG Contract No - 4251

UKAS TESTING 1367

ALLIED EXPLORATION & GEOTECHNICS LIMITED

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION WITHOUT MEASUREMENT OF PORE PRESSURE

BS 1377 : Part 7 : Clauses 8 & 9 : 1990 Part 7 Clause 3.2

Exploratory Hole	Sample ID		Specimen Depth (m)	Diameter (mm)	Length (mm)	Prep Method	Stage No	Initial Venturi Corrected (kPa)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Membrane Thickness (mm)	Membrane Correction (kPa)	Cell Pressure (kPa)	Corrected Deviator Stress (kPa)	Failure Strain (%)	Mode of Failure	cu (kPa)	Date Tested
[illegible]	[illegible]	[illegible]	6.10	100.7	210.6	[illegible]	1	94.2	2.04	1.54	0.3	0.60	100	105	12.5	C	52	10/07/2020
[illegible]	[illegible]	[illegible]	8.05	101.6	212.2	[illegible]	1	90.1	2.15	1.79	0.3	1.09	160	144	19.5	C	72	10/07/2020
[illegible]	[illegible]	[illegible]	11.03	101.3	211.0	[illegible]	1	104	2.33	2.09	0.7	2.54	220	782	20.0	C	391	10/07/2020

For test procedure please refer to the Laboratory Sample Description Sheet. Please note the rate of strain was 2% per minute and the orientation of the test specimen was vertical. Latex membrane used.

LABORATORY TESTING ENCLOSURE 11

Determination of Point Load Index

ALLIED EXPLORATION & GEOTECHNICS LIMITED

POINT LOAD STRENGTH INDEX

ISRM : 1985

Exploratory Hole No	Depth (m)	Type/ Orientation	Width (mm)	Platen Separation (mm)+	Failure Load (kN)*	De^2 (mm^2)	Point Load (IS) (MPa)	Size Factor	Point Load Index (IS50) (MPa)	Type	Date Tested
PRAIRIE_AUK_BH10	7.70	Axial	85.6	58.4	0.4	6365.0	0.06	1.23	0.078	Sandstone	17/06/2020

NOTES :- +Tested specimen measured using calibrated vernier calipers #-Invalid Failure (Did not pass through both points) !-Too soft to register a reading

Date of issue :- 25/06/2020	Certificate No :- PL/4251/1	Signed :-	Name :-	Page 1 of 1
Client :- South Tees Development Corporation	Contract Title :- Prairie Site Ground Investigation Works			AEG Contract No :- 4251

UKAS TESTING 1367

LABORATORY TESTING ENCLOSURE 12

Determination of Unconfined Compressive Strength

(Tested Externally)

LABORATORY TEST CERTIFICATE

10 Queenslie Point
Queenslie Industrial Estate
120 Stepps Road
Glasgow
G33 3NQ

Tel: 0141 774 4032

email: info@mattest.org
Website: www.mattest.org

Certificate No : **20/504 - 01**

To : **Michelle Selkirk**

Client : **Allied Exploration & Geotechnics Ltd.**
Unit 25 Stella Gill Industrial Estate
Pelton Fell
Chester-le-Street
County Durham
DH2 2RG

Dear Sirs,

LABORATORY TESTING OF ROCK

Introduction

We refer to samples taken from Prairie Site Ground Investigation Works and delivered to our laboratory on 18th June 2020.

Material & Source

Sample Reference	:	See Report Plate
Sampled By	:	Client
Sampling Certificate	:	Not Supplied
Location	:	See Report Plate
Description	:	Rock Cores
Date Sampled	:	Not Supplied
Date Tested	:	18th June 2020 Onwards
Source	:	4251 - Prairie Site Ground Investigation Works

Test Results;

As Detailed On Page 2

Comments;

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
This report should not be reproduced except in full without the written approval of the laboratory
All remaining samples for this project will be disposed of 28 days after issue of this test certificate

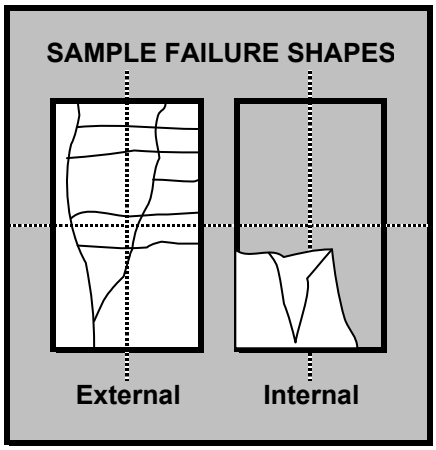
Remarks;

Approved for Issue

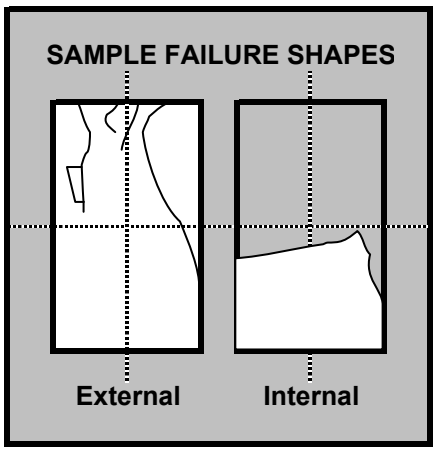
T McLelland (Director)

Date 10/11/2020

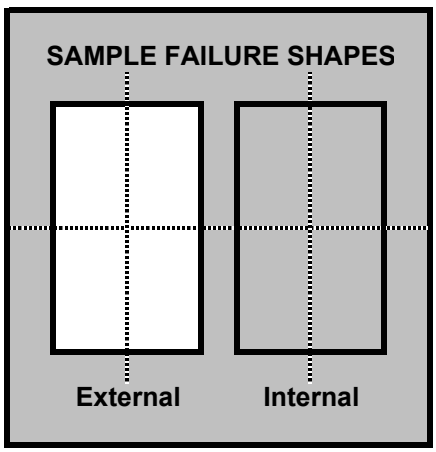
BOREHOLE		PRAIRIE_AUK_BH109
SAMPLE		C
DEPTH	m	9.00
SAMPLE DIAMETER	mm	81.64
SAMPLE HEIGHT	mm	169.33
TEST CONDITION		As Received
RATE OF LOADING	kN/s	0.4
TEST DURATION	min.sec	4.37
DATE OF TESTING		22/06/2020
LOAD FRAME USED		2000kN
LOAD DIRECTION WITH RESPECT TO LITHOLOGY		Unknown
FAILURE LOAD	kN	105.9
UNCONFINED COMPRESSIVE STRENGTH	MPa	20.2
WATER CONTENT (ISRM Suggested Methods)	%	3.5
BULK DENSITY (ISRM Suggested Methods)	Mg/m^3	2.60
DRY DENSITY (ISRM Suggested Methods)	Mg/m^3	2.51



BOREHOLE		PRAIRIE_AUK_BH109
SAMPLE		C
DEPTH	m	11.30
SAMPLE DIAMETER	mm	83.10
SAMPLE HEIGHT	mm	186.89
TEST CONDITION		As Received
RATE OF LOADING	kN/s	0.7
TEST DURATION	min.sec	3.28
DATE OF TESTING		22/06/2020
LOAD FRAME USED		2000kN
LOAD DIRECTION WITH RESPECT TO LITHOLOGY		Unknown
FAILURE LOAD	kN	132.2
UNCONFINED COMPRESSIVE STRENGTH	MPa	24.4
WATER CONTENT (ISRM Suggested Methods)	%	1.7
BULK DENSITY (ISRM Suggested Methods)	Mg/m^3	2.58
DRY DENSITY (ISRM Suggested Methods)	Mg/m^3	2.54



BOREHOLE		
SAMPLE		
DEPTH	m	
SAMPLE DIAMETER	mm	
SAMPLE HEIGHT	mm	
TEST CONDITION		
RATE OF LOADING	kN/s	
TEST DURATION	min.sec	
DATE OF TESTING		
LOAD FRAME USED		
LOAD DIRECTION WITH RESPECT TO LITHOLOGY		
FAILURE LOAD	kN	
UNCONFINED COMPRESSIVE STRENGTH	MPa	
WATER CONTENT (ISRM Suggested Methods)	%	
BULK DENSITY (ISRM Suggested Methods)	Mg/m^3	
DRY DENSITY (ISRM Suggested Methods)	Mg/m^3	



Tested in accordance with ASTM D7012 - 14

SUMMARY OF UNCONFINED COMPRESSIVE STRENGTH

LABORATORY TESTING ENCLOSURE 13

Slag Analysis

(Tested Externally)

TRS REPORT

Report Ref: BG0E-F/AEG/PSR/TRS/07/20/RP2
Date Issued: 31 July 2020
TRS Sample Refs: BG0E01-04/BG0F01-02
Order No: LA2343

EXAMINATION OF SIX SAMPLES

FROM

4251 PRAIRIE SITE GROUND INVESTIGATION

WORKS, REDCAR

FOR

ALLIED EXPLORATION & GEOTECHNICS LTD

Thomas Research Services Ltd.
Tel: +44 (0) 1469 532 929
www.slagtest.co.uk
Unit 7, Tattershall Castle Court, Morgan Way, New Holland,
North Lincolnshire, DN19 7PZ, United Kingdom
A Limited Company registered in England. Company Registration No: 2518421

EXAMINATION OF SIX SAMPLES
FROM
4251 PRAIRIE SITE GROUND INVESTIGATION
WORKS, REDCAR
FOR
ALLIED EXPLORATION & GEOTECHNICS LTD

1. BACKGROUND

Four bulk samples were received from the above site on 11th May 2020, with a further two samples arriving on 16th June 2020. Each sample was weighed and allocated a unique TRS reference number, the details of which are recorded below:-

TRS Ref	Site Ref	Depth/m	Mass/kg
BG0E01	TP109 B2	1.0	11.8
BG0E02	TP116 B2	1.0	12.3
BG0E03	TP117 B2	1.0	16.3
BG0E04	TP121 B5	1.8	12.1
BG0F01	TP131 B4	1.5	10.0
BG0F02	TP132 B3	1.0	9.8

There was a delay in processing these samples due to the Coronovirus lockdown.

The purpose of the exercise was to identify the range and relative concentrations of any iron and steelmaking slags present in the samples, and whether there was any potential for volumetric instability from the materials.

2. SAMPLE PREPARATION & PROGRAMME OF ANALYSIS

The samples were primary crushed to reduce particle size down to <50mm, portions then being selected and dried at low temperature to constant weight. The dried material was subjected to a regime of stage crushing and quartering to further reduce particle size down to <5mm. Portions of this <5mm material were made up into resin bound blocks, one face of which was ground flat and polished using diamond pastes. Further portions of the <5mm material were milled to a fine powder. Fractions of material were extracted throughout the preparation procedure to provide the materials necessary for the further tests and analyses required in the programme.

A petrological examination was made of the polished blocks using reflected light microscopy, the complete findings of which are recorded in appendix A. The results of this examination were discussed in our report of 10th July 2020. On the basis of that report, the following tests and analyses were carried out on the samples:-

Samples BG0E01-02 were subjected to the following tests & analyses to assess the potential for expansion of the blast furnace slag.

- Water soluble sulphate (table 1)
- Acid soluble sulphate (table 1)
- Total sulphur (table 1)
- Thermal analysis (table 3)
- TRS accelerated expansion test (table 4)

Samples BG0E04 & BG0F01-02 were subjected to the following tests & analyses to assess the potential for expansion of the basic steel slag.

- Free CaO (table 2)
- Free MgO (table 2)
- Thermal analysis (table 3)
- TRS accelerated expansion test (table 4)

Sample BG0E03 were subjected to the following tests & analyses to assess the potential for expansion of the mixed slag.

- Water soluble sulphate (table 1)
- Acid soluble sulphate (table 1)
- Total sulphur (table 1)
- Free CaO (table 2)
- Free MgO (table 2)
- Thermal analysis (table 3)
- TRS accelerated expansion test (table 4)

3. DISCUSSION OF RESULTS

3.1 Petrology

A petrological examination was made of the six samples using reflected light microscopy. The complete findings of this examination are recorded in appendices A and B.

Blast furnace slag was present in all six samples, with substantial quantities present in samples BG0E01-03 and small amounts in samples BG0E04 & BG0F01-02. The blast furnace slag was predominantly crystalline with only minor amounts of glassy material seen. Secondary alteration due to weathering was moderate, consisting mainly of pore infill and surface rinds. Products of alteration included calcite, with other products being difficult to identify specifically under the microscope. Old weathered blast furnace slag may occasionally contain pockets of potentially expansive material (see appendix C). This potential can only be assessed by direct expansion testing (see sections 3.2-3.5). The unaltered slag consisted predominantly of melilite, along with more minor amounts of larnite, bredigite, spinel, metallic iron and sulphides.

Basic steel slag was present in all six samples. Samples BG0E01-02 contained minor amounts (small/very small), sample BG0E03 contained a medium amount, but samples BG0E04 & BG0F01-02 comprised predominantly of basic steel slag. The slag was extensively altered due to weathering, the secondary phases being difficult to identify specifically under the microscope. The unaltered basic steel slag consisted largely of dicalcium silicate, along with more minor amounts of RO

& R_2O_3 phase, CaF phase, tricalcium silicate, lime phase and periclase. The mineralogy of the basic steel slag would suggest that it may have significant potential for expansion (see appendix C). This potential can only be assessed by direct expansion testing (see sections 3.2-3.5).

Minor amounts (small / very small) of basic refractory material were seen in four of the samples. This material, even in minor amounts, can have significant potential for expansion (see appendix C).

Other constituents seen in the samples in minor concentrations included alumino-silicate brick, quartz, limestone, iron ore, iron ore sinter, cinder, metal, coal, coke and fume. A cementitious material often bound the smaller particles together. This material appeared similar to the slag alteration products.

3.2 Sulphur Species

The following range of analyses were performed on samples BG0E01-03 (These samples contained significant amounts of blast furnace slag). The results are recorded in table 1:-

- Water soluble sulphate
- Acid soluble sulphate
- Total sulphur

Total sulphur values were in the range 0.62 to 1.07 percent. Acid soluble sulphates were in the range 0.30 to 0.87 percent, with corresponding water soluble sulphates of 0.17 to 0.35 g/l. These sulphate and sulphur values were fairly typical for blast furnace slag. However, care should be taken when specifying concrete that may come into contact with the slag. Calculations show that between 19 and 33 percent of the available sulphur is present as sulphate.

3.3 Thermal Analysis

Simultaneous differential thermal analysis (DTA) and thermo-gravimetric analysis (TGA) were performed on all six samples. The results are recorded in table three.

Ettringite was seen in three of the samples examined, at trace levels only. Gypsum was seen in all but one of the samples, at between trace and 3.7 percent. On comparing the gypsum values with the acid soluble sulphates, some of the gypsum values were overstated. This is common in old weathered blast furnace slag, and is usually an indicator of the presence of thaumasite. The presence of ettringite and possibly thaumasite would suggest some past expansion has occurred in the blast furnace slag.

Calcium hydroxide was recorded in four of the samples. at between 0.5 and 2.5 percent. Magnesium hydroxide was measured in three of the samples, at between 0.5 and 1.0 percent. These values were used to correct the free CaO and free MgO analyses recorded in table 2.

Calcite was present in all of the samples examined at between 2.4 and 5.6 percent. This product is an indicator as to the weathered state of the slag.

3.4 Free CaO & Free MgO

Free CaO & free MgO analyses were carried out on samples BG0E03-04 & BG0F01-02 (These samples contained medium or more mounts of basic steel slag). The results are recorded in table 2. Both original and corrected values are recorded. The original values include both the oxide (CaO and MgO) and the hydroxide ($Ca(OH)_2$ and $Mg(OH)_2$) contents. The corrected values report only the oxide content (CaO and MgO) after correction using the hydroxide values

from the thermal analyses. These corrected values are the more significant, as it is only the oxides that are still free to hydrate, i.e. expand.

Free lime was recorded in the samples at between 1.5 and 5.2 percent. Free magnesia was recorded at between 0.3 and 3.3 percent. These corrected free lime and free magnesia levels record oxides that are potentially still free to hydrate (i.e. expand).

3.5 TRS Accelerated Expansion Test

The TRS accelerated expansion test was performed on all six samples. The results are recorded in table four. Note that the test measures potential for future expansion, and is not a measure of expansion that may have taken place in the past.

Samples consisting predominantly of blast furnace slag, with only minor amounts of basic steel slag recorded expansion results of between 0.22 and 0.25 percent. The sample containing mixed blast furnace slag and basic steel slag recorded an expansion result of between 0.50 percent. Samples consisting predominantly of basic steel slag recorded expansion results of between 2.56 and 3.11 percent.

4. CONCLUSIONS & RECOMMENDATIONS

The following conclusions can be drawn:-

- Blast furnace slag was a dominant constituent in three of the samples (BG0E01-03) and a minor constituent in the remaining three. The slag was mainly crystalline although minor amounts of glassy material were seen. The slag showed some alteration due to weathering. Old weathered blast furnace slag may occasionally contain pockets of potentially expansive material. Potential for expansion can only be assessed with direct expansion testing.
- Further testing of samples consisting predominantly of blast furnace slag (with up to medium amounts of basic steel slag) recorded expansion results of between 0.22 and 0.50 percent. Thermal analysis indicated some evidence of past expansion of the blast furnace slag (presence of ettringite and possibly thaumasite). The sulphate values should be taken into consideration when specifying concrete that may come into contact with the slag.
- Basic steel slag was the dominant constituent in samples BG0E4 and BG0F01-02. It was also present in more minor amounts (vs to m) in the remaining three samples. This material is likely to present a significant risk of expansion. Potential for expansion can only be assessed with direct expansion testing.
- Expansion testing of the samples consisting mainly of basic steel slag (BG0E04 & BG0F01-02) recorded expansion results of between 2.56 and 3.11 percent.
- Minor amounts of basic refractory material were seen in four of the six samples examined. This product can be a significant source of expansion, even when present in relatively small amounts.

- Other products were seen in the samples in minor amounts including alumino-silicate brick, quartz, limestone, iron ore, iron ore sinter, cinder, metal, coal, coke and fume.

Note

These conclusions apply only to the samples tested and may not represent the bulk of the material on the site from which they were taken.

Ian D. Thomas

Ian D Thomas BSc(Hons) **31 July 2020**

TABLE 1 SULPHUR SPECIES ANALYSES

TRS Ref	Site Ref	Water Sol. SO_4 (g/l)	Acid Sol. SO_4 (%)	Total S (%)
BG0E01	TP109	0.14	0.87	1.07
BG0E02	TP116	0.17	0.40	0.86
BG0E03	TP117	0.35	0.7	0.62
BG0E04	TP121			-
BG0F01	TP131	-	-	-
BG0F02	TP131	-	-	-

TABLE 2 ANALYSIS FOR FREE CaO AND FREE MgO

TRS Ref	Site Ref	Free CaO Original (%)	Free CaO Corrected (%)	Free MgO Original (%)	Free MgO Corrected (%)
BG0E01	TP109	-	-	-	-
BG0E02	TP116	-	-	-	-
BG0E03	TP117	2	1.5	1.7	1.7
BG0E04	TP121	7.1	5.7	1.1	0.2
BG0F01	TP131	4.9	4.3	1.7	3.7
BG0F02	TP131	5.5	4.6	1.0	0.3

TABLE 3 RESULTS FROM THERMAL ANALYSIS

TRS Ref	Site Ref	Mass % by Thermal Analysis						
		L.O.I.	Ettringite	Gypsum	Calcite	$Ca(OH)_2$	$Mg(OH)_2$	Others
BG0E01	TP109	6.29	trace	1.7	2.4	0.0	0.0	-
BG0E02	TP116	5.95	trace	1.2	4.4	0.0	0.0	clay?
BG0E03	TP117	5.60	0.0	trace	5.4	0.5	0.0	Quartz
BG0E04	TP121	7.08	trace	trace	2.4	2.5	0.5	-
BG0F01	TP131	6.85	0.0	trace	5.5	0.8	0.5	quartz?
BG0F02	TP131	3.67	0.0	0.5	4.4	1.3	1.0	-

TABLE 4 TRS ACCELERATED EXPANSION TEST

TRS Ref	Site Ref	7 day (%)	14 day (%)	21 day (%)	28 day (%)
BG0E01	TP109	0.15	0.22		-
BG0E02	TP116	0.25	0.35	-	-
BG0E03	TP117	0.30	0.45	0.48	0.52
BG0E04	TP121	0.31	1.50	2.11	2.56
BG0F01	TP131	1.54	2.25	3.05	3.11
BG0F02	TP131	1.25	1.93	2.53	2.45

APPENDIX A

PETROLOGICAL REPORT ON SAMPLES BG0E 01-04

A petrological examination has been carried out of four samples BG0E 01 to 04.

Polished blocks were prepared using particulate material crushed to a nominal size of −5mm. Representative material was made up into resin-bonded blocks. One face of each of these was ground flat and polished using diamond pastes. In addition, the surfaces were selectively etched with water and 0.1%N HCl in order to help with the phase identification.

The detailed results are given in the accompanying Table.

Samples 01, 02 and 03 consist largely of blast furnace slag and its alteration products.

Sample 04 is mainly basic steel slag whilst samples 01, 02 and 03 have very small, small and medium amounts respectively. Very little basic refractory material was seen.

Blast furnace slag
The unaltered blast furnace slag consists mainly of melilite (Ca,Mg,Al silicate). It is crystalline with crystals varying up to about 1mm in size. The matrix, the space between the melilite crystals, is partly occupied by silicate glass and partly with other silicates such as larnite (ß-Ca_2SiO_4) and bredigite (Ca_7SiO_4 with some Mg in solid solution). Also, some spinel ($MgAl_2O_4$) occurs as a primary phase. The slag contains minor amounts of iron metal occurring as tiny globules and prills and, also, dendritic crystals of Ca,Mn sulphide. Secondary alteration is moderate. It is mainly restricted to pore infill and the formation of thin rinds and to the replacement of the matrix phases, especially the larnite. The secondary products are mostly finely granular and are difficult to identify specifically under the microscope. Some calcite ($CaCO_3$) its present but no well-crystallised gypsum ($CaSO_4.2H_2O$) was seen.

Basic steel slag
The unaltered basic steel slag consists mainly of dicalcium silicate, tricalcium silicate, RO and R_2O_3 phases (FeO and Fe_2O_3 with some Al, Mn, Mg and Ca in solid solution) and CaF phases (complex Ca alumino-ferrites). Individual particles vary considerably in composition. Lime phase (CaO with some Fe, Mn and Mg in solid solution) is present in substantial amounts. It occurs mainly as granular particles up to about 0,1 mm in size that are often packed together as macro-inclusions. Periclase (MgO with some Fe in solid solution) is uncommon. Some

metal is present as prills. The slag is extensively altered to secondary products that are difficult to identify specifically and are, probably, mainly hydrated silicates but also include some calcite ($CaCO_3$) and, probably, portlandite ($Ca(OH)_2$).

Other constituents

These include rare acid (silicic) slag, quartz, limestone, iron ore, iron ore sinter, metal and associated red (goethitic) rust, coke and fume. The particles are bonded together by cementitious material that is similar to the slag alteration products but probably also includes some clay. It consists mostly of complex hydrates difficult to identify under the optical microscope.

TRS SAMPLES BGDE 01-04

	1	2	3	4
BLAST FURNACE SLAG				
Amount	***L***	***L***	***l***	***s***
Phases present:-				
Metallic	L	L	l	l
Lamine & prediglie	vs	vs	vs	
Matrix & other silicates	s	s	s	-
Ca & Fe sulphides	vs	vs	vs	-
Metallic iron	vs	vs	s	-
Spine	s	s	s	-
Glassy slag	-	vs	s	-
Alteration products	m	m	l	m
Calcite	s	s	-	-
BASIC STEEL SLAG				
Amount	***vs***	***s***	***m***	***L***
Phases present:-				
Dicalcium silicate	-	m	m	m
Tricalcium silicate	-	-	s	-
RO phase	vs	m	m	m
CaF phase	-	s	s	s
R3O4 phase	-	s	s	s
Metal & rust	-	s	s	vs
Lime phase	-	s	s	m
Periclase	vs	s	s	s
Alteration products	L	l		L
BASIC REFRACTORIES				
Amount	***vs***	***vs***	-	-
OTHER CONSTITUENTS				
Quartz, etc	s	vs	s	s
Acid (silicic) slag	vs	-	-	-
Metal, rust scale etc	s	s	s	s
Limestone & dolomite	-	vs	s	-
Iron ore, ironstone etc	vs	vs	-	-
Coke	vs	vs	vs	vs
Cementitious alteration products	s	s	s	s

L = very large, l = large, m = medium, s = small and vs = very small amounts

<u>GENERAL EXPLANATION</u>

L = very large, l = large, m = medium, s = small and vs = very small amounts.

Blast furnace slag. When present this consists mainly of melilite (Ca,Mg,Al silicate ranging in composition between $Ca_2Al_2SiO_7$ and $Ca_2MgSi_2O_7$). Other common phases are merwinite ($Ca_3MgSi_2O_8$). The matrix often consists of some of the above phases, especially melilite, but may also contain other phases such as wollastonite ($CaSiO_3$), anorthite ($CaAl_2Si_2O_8$) and pyroxene ((Ca,Mg)SiO_3). Spinel ($MgAl_2O_4$) may be present. Sulphides and metal usually occur and are mostly finely dispersed, but the metal sometimes occurs as prills and may contain some graphite and Ti carbo-nitride (Ti(C,N)). Material reported as ceramic in appearance is very finely crystalline. The alteration products often include calcite and gypsum but are mostly silicate and/or sulpho-aluminate hydrates that are difficult to identify specifically under the microscope.

Basic steel slag. When present this consists mainly of dicalcium silicate, mostly the β-form (larnite) but sometimes the alpha form. Phosphoric slags may contain nagelschmidtite (Ca_2SiO_4 with $Ca_3P_2O_8$ in solid solution). Other silicate often present in small amounts, unetched by dilute HCl, is probably melilite. RO, R_3O_4 and RF phases are typically present and are mainly FeO and Fe_3O_4 with some Mg, Mn, Ca, etc. in solid solution and complex Ca alumino-ferrites. There may also be some Fe_2O_3 and spinel ((Mg,Fe)Al_2O_4). The slag typically carries minor amounts of periclase (MgO with some Fe in solid solution) and lime phase (CaO with some Fe, Mn & Mg in solid solution). Other possible minor constituents include fluorite (CaF_2) and apatite (Ca fluoro-phosphate), the last present in phosphoric slags. The alteration products are, again, difficult to identify specifically but are probably, mainly, hydrated silicates. Portlandite ($Ca(OH)_2$) may be present.

Basic refractory material. When present, this is mainly magnesian and consists of granular periclase (MgO) with interstitial silicates. Sometimes samples contain chrome-magnesia material with chromite present in addition to the other phases. Hot face material (from close to the furnace) may also occur. The periclase and interstitial silicates show secondary alteration similar to that of the basic steel slag. Brucite ($Mg(OH)_2$) is likely.

Acid steel slag. When present this consists mainly of fayalite ((Fe,Mn)$_2SiO_4$), Fe/Mn oxides and cristobalite (high temperature SiO_2).

Other slags. The 'intermediate slag' (probably primary flush slags from steel furnaces) has a variable phase assemblage, being mainly formed of silicates, particularly dicalcium silicate, melilite, merwinite and a complex olivine phase together with spinel and wustite (FeO). Sometimes it contains significant amounts of periclase, well embedded in the slag. The 'ferrous slag' (probably from foundry operations) has similar silicates but much more substantial content of iron oxides, usually wustite. It is often associated with scale (iron oxides formed on the surface of steel during reheating/cooling). When present, the 'foundry slag' consists of various silicates and silicate glass with Fe oxides, hercynite ($FeAl_2O_4$) and, sometimes, corundum (Al_2O_3). It is usually derived from heating furnaces and is often associated with burnt shale. When present, the 'siliceous clinker' is similar but devoid of iron oxides.

Other constituents The 'alumino-silicate brick' includes a range of refractory firebrick, common brick and alumina-rich refractories. The 'quartz, sandstone, etc.' may include used silica refractory material consisting of quartz and its high temperature forms. Sometimes there is a distinct granular texture and it is derived from siliceous, a kind of chert. Cementitious material may bind the finer particles together. It is similar to the other alteration products consisting mainly of complex hydrates difficult to identify under the microscope. Sometimes some is used Portland cement recognised by the relict texture of the clinker and the embedded quartz sand.

APPENDIX B

PETROLOGICAL REPORT ON SAMPLES BG0F 01 & 02

A petrological examination has been carried out of two samples BG0F 01 and 02.

Polished blocks were prepared using particulate material crushed to a nominal size of –5mm. Representative material was made up into resin-bonded blocks. One face of each of these was ground flat and polished using diamond pastes. In addition, the surfaces were selectively etched with water and 0.1%N HCl in order to help with the phase identification.

The detailed results are given in the accompanying Table.

Both samples consist mainly of basic steel slag with small but significant amounts of basic refractory material.

There are small amounts of blast furnace slag and its alteration products.

Blast furnace slag
The unaltered blast furnace slag consists mainly of melilite (Ca,Mg,Al silicate). It is crystalline with crystals varying up to about 1mm in size. The matrix, the space between the melilite crystals, is partly occupied by silicate glass and partly with other silicates. Also, some spinel ($MgAl_2O_4$) occurs as a primary phase. The slag contains minor amounts of iron metal. Secondary alteration is moderate. It is mainly restricted to pore infill and the formation of thin rinds. The secondary products are mostly finely granular and are difficult to identify specifically under the microscope. Some calcite ($CaCO_3$) is present but no well-crystallised gypsum ($CaSO_4.2H_2O$) was seen.

Basic steel slag
Although the individual particles vary considerably in composition the two samples are broadly similar to one another.

The unaltered basic steel slag consists mainly of dicalcium silicate, tricalcium silicate, RO, R_3O_4 and R_2O_3 phases (FeO, Fe_3O_4 and Fe_2O_3 with some Al, Mn, Mg and Ca in solid solution), and CaF phases (complex Ca alumino-ferrites). Lime phase (CaO with some Fe, Mn and Mg in solid solution) is present in substantial amounts and is widespread. It occurs mainly as granular particles up to about 0.1 mm in size that tends to be packed together as macro-inclusions. Periclase (MgO with some Fe in solid solution) is present in small amounts and like lime phase is widespread. It tends to be present in the grain cores protected by marginal RO phase that is more iron rich. Some metal is present as small prills partly rusted. The slag is extensively altered to secondary products that are

difficult to identify specifically and are, probably, mainly hydrated silicates but also include some calcite ($CaCO_3$).

Basic refractory material

This is mainly magnesian and consists of two types: (a) coarsely crystalline granular periclase (MgO) with bonding by magnesian silicates and (b) finely crystalline material probably seawater magnesia.

Other constituents

These include quartz, alumino-silicate brick, cinder, metal with associated red (goethitic) rust, coke, coal and fume. The particles are bonded together by cementitious material that is similar to the slag alteration products but probably also includes some clay. It consists mostly of complex hydrates difficult to identify under the optical microscope.

TRS SAMPLES BG0F 01 & 02

	1	2
BLAST FURNACE SLAG		
Amount	s	s
Phases present:-		
Melilite	l	l
Matrix & other silicates	s	m
Metallic iron		vs
Spinel	-	s
Glassy slag	s	s
Alteration products	m	m
Calcite	-	s
BASIC STEEL SLAG		
Amount	L	L
Phases present:-		
Dicalcium silicate	l	m
Tricalcium silicate		s
Unleached silicate	-	s
RO phase	m	m
CaF phase	s	s
R3O4 & R2O3 phases	s	s
Metal & rust	s	s
Lime phase	s	s
Periclase	s	s
Alteration products	m	m
BASIC REFRACTORIES		
Amount	s	s
OTHER CONSTITUENTS		
Aluminosilicate brick	s	vs
Quartzite	s	s
Cinders/ slag	vs	-
Fume	vs	vs
Metal, rust, scale, etc	s	s
Coke	s	vs
Coal & char	s	-
Cementitious alteration products	s	s

L = very large, l = large, m = medium, s = small and vs = very small amounts

GENERAL EXPLANATION

L = very large, l = large, m = medium, s = small and vs = very small amounts.

Blast furnace slag. When present this consists mainly of melilite (Ca,Mg,Al silicate ranging in composition between $Ca_2Al_2SiO_7$ and $Ca_2MgSi_2O_7$). Other common phases are merwinite ($Ca_3MgSi_2O_8$). The matrix often consists of some of the above phases, especially melilite, but may also contain other phases such as wollastonite ($CaSiO_3$), anorthite ($CaAl_2Si_2O_8$) and pyroxene ((Ca,Mg)SiO_3). Spinel ($MgAl_2O_4$) may be present. Sulphides and metal usually occur and are mostly finely dispersed, but the metal sometimes occurs as prills and may contain some graphite and Ti carbo-nitride (TiCN). Material reported as ceramic in appearance is very finely crystalline. The alteration products often include calcite and gypsum but are mostly silicate and/or sulpho-aluminate hydrates that are difficult to identify specifically under the microscope.

Basic steel slag. When present this consists mainly of dicalcium silicate, mostly the ß-form (larnite) but sometimes the alpha form. Phosphoric slags may contain nagelschmidtite (Ca_2SiO_4 with $Ca_3P_2O_8$ in solid solution). Other silicate often present in small amounts, unetched by dilute HCl, is probably melilite. RO, R_2O_3 and RF phases are typically present and are mainly FeO and Fe_2O_3 with some Mg, Mn, Ca, etc. in solid solution and complex Ca alumino-ferrites. There may also be some Fe_3O_4 and spinel ((Mg,Fe)Al_2O_4). The slag typically carries minor amounts of periclase (MgO with some Fe in solid solution) and lime phase (CaO with some Fe, Mn & Mg in solid solution). Other possible minor constituents include fluorite (CaF_2) and apatite (Ca fluoro-phosphate), the last present in phosphoric slags. The alteration products are, again, difficult to identify specifically but are probably, mainly, hydrated silicates. Portlandite ($Ca(OH)_2$) may be present.

Basic refractory material. When present, this is mainly magnesian and consists of granular periclase (MgO) with interstitial silicates. Sometimes samples contain chrome-magnesia material with chromite present in addition to the other phases. Hot face material (from close to the furnace) may also occur. The periclase and interstitial silicates show secondary alteration similar to that of the basic steel slag. Brucite ($Mg(OH)_2$) is likely.

Acid steel slag. When present this consists mainly of fayalite ((Fe,Mn)$_2SiO_4$), Fe,Mn oxides and cristobalite (high temperature SiO_2).

Other slags. The 'intermediate slag' (probably primary flush slags from steel furnaces) has a variable phase assemblage, being mainly formed of silicates, particularly dicalcium silicate, melilite, merwinite and a complex olivine phase together with spinel and wustite (FeO). Sometimes it contains significant amounts of periclase, well embedded in the slag. The 'ferrous slag' (probably from foundry operations) has similar silicates but much more substantial content of iron oxides, usually wustite. It is often associated with scale (iron oxides formed on the surface of steel during reheating/rolling). When present, the 'cindery slag' consists of various silicates and silicate glass with Fe oxides, hercynite ($FeAl_2O_4$) and, sometimes, corundum (Al_2O_3). It is usually derived from heating furnaces and is often associated with burnt shale. When present, the 'siliceous cinder' is similar but devoid of iron oxides.

Other constituents. The aluminosilicate brick includes a range of refractory firebrick, common brick and aluminosilicate refractories. The quartz, sandstone, etc. may include used silica refractory material consisting of quartz and its high temperature forms. Sometimes there is a distinct granular texture and it is derived from siliceous, a kind of chert. Cementitious material may bind the loose particles together. This, similar to the other alteration products, consists mostly of complex hydrates difficult to identify under the microscope. Sometimes there is hardened Portland cement, recognised by the relict textures of the clinker and the embedded quartz sand.

APPENDIX C

MECHANISMS OF VOLUMETRIC INSTABILITY IN IRON AND STEEL INDUSTRY SLAGS

Volumetric change with time can occur in some types of iron and steel industry slags. These mechanisms are briefly described in this section.

Blast Furnace Slags

Fresh-make air-cooled, i.e. crystalline, blast furnace slags are almost always volumetrically stable after cooling. The two mechanisms for volumetric instability listed in BS1047:1983 – "Air Cooled Blast furnace Slag for use in Construction" are:-

a) Beta to gamma inversion of dicalcium silicate.

b) Iron unsoundness.

a) Research by G H Thomas on this phase transformation has shown the transformation to be athermal rather than isothermal. In practical terms this means that inversion, and the expansion associated with it, can only occur during the cooling cycle. In fully cooled material there would appear to be no further risk of instability from this mechanism.

b) Iron unsoundness is a very rare form of instability frequently associated with operating problems in the blast furnace. TRS know of only one instance in over 40 years. The mechanism, which is a hydrolysis reaction, is immediately triggered off by the presence of water. Once water has initiated the reaction, the mechanism proceeds to completion. It is impossible to arrest the process once started; at least by methods operating in normal ambient conditions.

It follows that the risk of late expansion from either of these mechanisms in blast furnace slag is remote.

c) Sulphoaluminate Type Activity

Some years ago, G. H. Thomas discovered a third mechanism that may give rise to volumetric instability. The process is possible only in some old blast furnace slag altered by weathering. When the sulphide sulphur in the blast furnace slags is oxidised during

weathering to sulphate, under some circumstances reactions can take place within the slag to produce an 'ettringite' type product. The process is somewhat analogous to sulphatic attack or concrete and has a similar result - expansion of the mass and associated disruption.

For the mechanism to have any significance, the slag needs to have residual potential for this reaction. Evidence of past activity does not necessarily indicate further reaction is possible.

The TRS accelerated expansion test is, we believe, uniquely capable of identifying such slags, as well as instability attributable to free CaO and free MgO in steel slag & etc.

Basic Steel Slags

Basic steel slags commonly contain significant quantities of free CaO and free MgO. These free oxides are well known for the massive expansion associated with their hydration. In practical terms, it is impossible to forecast when hydration will take place, but it can be up to decades after the material was cooled – or placed. The reasons are complex, but include the varying density of the oxides, due to the variation in temperatures at which the products have been held in the furnace. Other factors influencing rate of hydration include:-

- the protection of slags by a reaction product at the oxide interface with the slag.
- the presence of the oxides as lime or magnesia rich solid solutions instead of the pure oxide.

The result is potential future volumetric instability but at an unforeseeable date. Periclase, i.e. free MgO, is relatively much slower than free CaO to hydrate.

Scrap High Magnesia Refractories

These are particularly undesirable components in fill as they commonly result in high concentrations of free MgO. The problems associated with these concentrations are similar to those where periclase is found in basic steel slag.

APPENDIX I

Specialist Chemical Testing

(Tested Externally)

Certificate of Analysis

Certificate Number Combined 4251 Prairie

10-Nov-20

Client Allied Exploration & Geotechnics Limited
Unit 25
Stella Gill Industrial Estate
Pelton Fell
DH2 2RG

Our Reference Combined 4251 Prairie

Client Reference 4251

Order No (not supplied)

Contract Title Prairie Site Ground Investigation Works

Description 120 Soil samples, 24 Leachate samples, 42 Water samples.

Date Received 06-Apr-20

Date Started 06-Apr-20

Date Completed 10-Nov-20

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

2139

Summary of Chemical Analysis
Matrix Descriptions

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
PRAIRIE_AUK_TP132	4	1.3	1663605	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP131	5	1.8	1663606	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP101	5	1	1663734	05/08/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRAIRIE_AUK_TP101	9	2.2	1663735	05/08/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP104	5	1.5	1663736	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP105	11	2.5	1663737	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_BH104	1	5.5	1663978	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP172	3	0.8	1665133	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP175	3	0.8	1665134	05/08/2020	Dark brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP175	6	1.8	1665135	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP178	3	0.8	1665136	05/08/2020	Dark brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_BH106	1	5.5	1665137	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP107	6	1.8	1665138	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP107	11	0.8	1665139	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP108	5	1	1665140	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP108	8	2	1665141	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP113	5	1.3	1665142	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_BH103	1	2.5	1665286	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP115	6	1.9	1665288	05/08/2020	Dark grey sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP122	3	1	1665290	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP123	3	0.6	1665291	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP185	5	4.3	1665292	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP186	3	0.5	1665293	05/08/2020	Dark brown gravelly, sandy CLAY (Possible made ground - brick)
PRAIRIE_AUK_TP188	3	1	1665295	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP121	4	1.5	1665450	05/08/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP138	3	1.2	1665451	05/08/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRAIRIE_AUK_TP149	3	1.3	1665452	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP168	1	0.05	1665453	05/08/2020	Dark brown gravelly, clayey SAND

Summary of Chemical Analysis
Matrix Descriptions

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
PRAIRIE_AUK_TP173	3	0.9	1665454	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_SURFACE1	1	0	1665455	05/08/2020	Cream, gravelly, sandy and CLAY
PRAIRIE_AUK_TP114	6	0.9	1665588	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP124	5	1.5	1665589	05/08/2020	Dark brown gravelly, very sandy CLAY
PRAIRIE_AUK_TP174	3	0.8	1665590	05/08/2020	Dark brown gravelly, very sandy CLAY
PRAIRIE_AUK_TP174	6	1.6	1665591	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP176	3	0.9	1665592	05/08/2020	Dark brown gravelly, very sandy CLAY
PRAIRIE_AUK_TP177	2	0.6	1665593	05/08/2020	Dark brown gravelly, very sandy CLAY
PRAIRIE_AUK_TP189	7	3	1665594	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP179	4	1.4	1665610	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP179	7	2	1665611	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP181	3	0.6	1665612	05/08/2020	Dark brown gravelly, very, sandy CLAY
PRAIRIE_AUK_TP182	3	0.9	1665613	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP145	4	1.6	1665990	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP146C	5	1.3	1665991	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP156A	2	0.3	1665992	05/08/2020	Dark brown gravelly, very sandy CLAY
PRAIRIE_AUK_TP162	3A	1.7	1665993	05/08/2020	Dark brown gravelly, very sandy CLAY including some rootlets
PRAIRIE_AUK_TP180	3	0.3	1665994	05/08/2020	Dark brown gravelly, very sandy CLAY including some rootlets
PRAIRIE_AUK_TP163	3	1.2	1665995	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP135	5	1.3	1666343	05/08/2020	Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP136	3	0.8	1666344	05/08/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP136	10	2.9	1666345	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP165	3	1	1666346	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP167	6	2.5	1666347	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP169	3	1.5	1666348	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_BH108	1	2.5	1666610	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP139B	3	0.3	1666611	05/08/2020	Dark brown very sandy GRAVEL (Possible made ground - brick) (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP139B	6	3.3	1666612	05/08/2020	Dark brown sandy CLAY

Summary of Chemical Analysis
Matrix Descriptions

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
PRAIRIE_AUK_TP148A	5	1.4	1666613	05/08/2020	Dark brown very sandy GRAVEL (Possible made ground - brick) (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP150	3	1.5	1666614	05/08/2020	Dark brown very sandy GRAVEL (Possible made ground - brick) (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP159	3	0.6	1666615	05/08/2020	Dark brown very sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP190A	3	1.1	1666616	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_BH105	1	3	1667231	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP126	5	2.6	1667232	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP128	3	0.9	1667233	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP129	4A	2.1	1667234	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP130	4A	1	1667235	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP147	4	1.5	1667236	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP158	3	1.3	1667237	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP157	2	0.8	1667238	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP120A	3	1	1667501	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP134	3	1	1667502	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP134	6	2	1667503	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP161	3	1	1667504	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP166	3	0.45	1667505	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP166	8	1.2	1667506	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP171	3	0.75	1667507	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP187	3	0.7	1667508	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_BH110	1	3	1668118	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP102	4	1	1668119	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP102	11	3	1668120	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP103	3	1	1668121	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP109	3	1	1668122	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP110	3	1	1668123	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP110	7	2	1668124	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP111	4	1.5	1668125	05/08/2020	Dark brown gravelly SAND

Summary of Chemical Analysis
Matrix Descriptions

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
PRAIRIE_AUK_TP112	4	1.5	1668126	05/08/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRAIRIE_AUK_TP119	3	1.5	1668127	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP119	7	2.5	1668128	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP133	2	0.5	1668129	05/08/2020	Dark brown, gravelly SAND
PRAIRIE_AUK_TP152	6	2	1668130	05/08/2020	Dark brown gravelly, very sandy CLAY
PRAIRIE_AUK_TP153	4	1.1	1668131	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP154	3	0.85	1668132	05/08/2020	Dark brown very gravelly SAND
PRAIRIE_AUK_TP155	3	0.7	1668133	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP160	4	0.75	1668134	05/08/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRAIRIE_AUK_TP170	4	1	1668135	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP164	3	0.7	1668557	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP164	5	1.3	1668558	05/08/2020	Dark brown gravelly, slightly clayey SAND
PRAIRIE_AUK_TP184	2	0.3	1668559	05/08/2020	Dark brown sandy GRAVEL including odd rootlets (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP106	3	1	1668560	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP116	3	1.3	1668561	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP117	8	3	1668562	05/08/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP118	3	1.2	1668563	05/08/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP127	3	0.3	1668564	05/08/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRAIRIE_AUK_TP127A	3	2.8	1668565	05/08/2020	Brown sandy CLAY
PRAIRIE_AUK_TP140	3	1	1668566	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP141	4	2	1668567	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP142	3	0.9	1668568	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP142	4	1.5	1668569	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP143	3	0.8	1668570	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP143	6	1.6	1668571	05/08/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP151	5	1.2	1668572	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP139	4	1.1	1668657	05/08/2020	Dark brown very gravelly, sandy CLAY
PRAIRIE_AUK_TP144	3	0.8	1668869	05/08/2020	Dark brown very sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)

Summary of Chemical Analysis
Matrix Descriptions

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
PRAIRIE_AUK_TP112	7	2.1	1669251	05/08/2020	Dark brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP194A	1	1.4	1670142	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP196A	1	1.4	1670143	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP201	1	3.6	1670144	05/08/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP193	1	0.8	1670502	05/08/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_BH101	1	3	1675450	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_BH107	1	3	1675451	05/08/2020	Dark brown sandy CLAY
PRAIRIE_AUK_SW4	1	0	1700277	05/08/2020	Dark grey very gravelly SAND

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1663605	1663606	1663734	1663735	1663736
			Sample ID	PRAIRIE_AUK_TP132	PRAIRIE_AUK_TP131	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP104
			Depth	1.30	1.80	1.00	2.20	1.50
			Other ID	4	5	5	9	5
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	02/04/2020	02/04/2020	01/04/2020	01/04/2020	01/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Asbestos Quantification	DETSC 1102	0.001	%			0.001		
Metals								
Aluminium	DETSC 2301*	1	mg/kg	12000	15000	36000	32000	31000
Antimony	DETSC 2301*	1	mg/kg	7.7	9.1	1.4	1.5	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	5.2	13	13	18	23
Barium	DETSC 2301#	1.5	mg/kg	220	1300	390	280	390
Beryllium	DETSC 2301#	0.2	mg/kg	0.7	1.4	4.4	4.0	3.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	5.4	1.3	3.1	4.3	3.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.4	0.3	0.4	0.5	0.5
Chromium	DETSC 2301#	0.15	mg/kg	410	620	30	39	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	36	100	55	54	61
Iron	DETSC 2301	25	mg/kg	140000	99000	18000	31000	56000
Lead	DETSC 2301#	0.3	mg/kg	88	46	330	89	110
Magnesium	DETSC 2301*	1	mg/kg	41000	33000	23000	14000	25000
Manganese	DETSC 2301#	20	mg/kg	18000	17000	2900	1500	7700
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.07	0.25	0.24	0.34
Molybdenum	DETSC 2301#	0.4	mg/kg	3.9	1.5	1.0	1.6	1.4
Nickel	DETSC 2301#	1	mg/kg	17	12	9.7	23	21
Silicon	DETSC 2301*	10	mg/kg	42000	46000	67000	120000	64000
Vanadium	DETSC 2301#	0.8	mg/kg	430	3300	74	91	290
Zinc	DETSC 2301#	1	mg/kg	130	56	170	200	180
Inorganics								
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	12.2	12.1	10.0	10.1	10.9
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.7	0.4	0.6	0.2	0.3
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	2.4	0.7	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.0	1.6	4.5	2.8	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	17	24	850	590	490
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	1.9	120	16	5.0

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

	Lab No	1663605	1663606	1663734	1663735	1663736
	Sample ID	PRAIRIE_AUK_TP132	PRAIRIE_AUK_TP131	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP104
	Depth	1.30	1.80	1.00	2.20	1.50
	Other ID	4	5	5	9	5
	Sample Type	ES	ES	ES	ES	ES
	Sampling Date	02/04/2020	02/04/2020	01/04/2020	01/04/2020	01/04/2020
	Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	2.7	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	4.9	< 1.5	< 1.5	3.6	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	43	11	< 3.4	20	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	48	12	< 10	27	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1.1	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.1	< 0.5	0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1.9	< 0.6	19	1.5	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	7.7	< 1.4	38	16	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	12	< 10	58	18	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	60	12	58	45	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	290	68	1100	110	120
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg	0.08	< 0.03	0.09	0.08	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.05	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09	< 0.03	1.4	0.15	0.05
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	1.4	0.11	0.06
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.6	0.42	22	1.1	1.1
Anthracene	DETSC 3303	0.03	mg/kg	0.08	0.08	2.7	0.21	0.14
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.4	0.97	37	1.4	1.9
Pyrene	DETSC 3303#	0.03	mg/kg	0.91	0.74	31	1.0	1.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.24	0.33	7.8	0.39	0.66
Chrysene	DETSC 3303	0.03	mg/kg	0.44	0.40	7.1	0.49	0.79
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.44	0.45	6.7	0.36	0.75
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.18	0.18	2.6	0.15	0.31
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.14	0.22	3.7	0.23	0.43
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.14	0.13	2.0	0.10	0.20
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04	0.04	0.55	0.03	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.19	0.16	2.3	0.11	0.27
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	6.0	4.1	130	5.9	8.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1663605	1663606	1663734	1663735	1663736
			Sample ID	PRAIRIE_AUK_TP132	PRAIRIE_AUK_TP131	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP101	PRAIRIE_AUK_TP104
			Depth	1.30	1.80	1.00	2.20	1.50
			Other ID	4	5	5	9	5
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	02/04/2020	02/04/2020	01/04/2020	01/04/2020	01/04/2020
			Sampling Time	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					
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					
PCB 7 Total	DETSC 3401#	0.01	mg/kg					
Phenols								
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.4	0.3	0.4	< 0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1663737	1663978	1665133	1665134
			Sample ID	PRAIRIE_AUK_TP105	PRAIRIE_AUK_BH104	PRAIRIE_AUK_TP172	PRAIRIE_AUK_TP175
			Depth	2.50	5.50	0.80	0.80
			Other ID	11	1	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	01/04/2020	03/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%			0.001	
Metals							
Aluminium	DETSC 2301*	1	mg/kg	16000	9700	12000	18000
Antimony	DETSC 2301*	1	mg/kg	2.0	< 1.0	1.9	3.7
Arsenic	DETSC 2301#	0.2	mg/kg	14	5.9	20	13
Barium	DETSC 2301#	1.5	mg/kg	400	120	650	350
Beryllium	DETSC 2301#	0.2	mg/kg	1.7	0.7	1.5	2.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.2	1.1	7.7	3.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.4	0.1	1.4	0.6
Chromium	DETSC 2301#	0.15	mg/kg	38	20	19	130
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	44	19	95	54
Iron	DETSC 2301	25	mg/kg	46000	24000	34000	57000
Lead	DETSC 2301#	0.3	mg/kg	45	11	120	1500
Magnesium	DETSC 2301*	1	mg/kg	7900	11000	8800	12000
Manganese	DETSC 2301#	20	mg/kg	1100	450	38000	8400
Mercury	DETSC 2325#	0.05	mg/kg	0.09	< 0.05	4.1	0.37
Molybdenum	DETSC 2301#	0.4	mg/kg	1.1	0.8	2.7	1.8
Nickel	DETSC 2301#	1	mg/kg	38	23	25	18
Silicon	DETSC 2301*	10	mg/kg	180000	120000	80000	79000
Vanadium	DETSC 2301#	0.8	mg/kg	48	28	39	280
Zinc	DETSC 2301#	1	mg/kg	160	48	280	170
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				
pH	DETSC 2008#		pH	9.1	8.1	10.0	10.4
Calorific Value	DETSC 5008	1	MJ/kg				
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	52	6.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	0.5	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.6	< 0.6	3.6	0.9
Organic matter	DETSC 2002#	0.1	%	1.4	1.0	4.4	3.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	770	100	450	390
Sulphur (free)	DETSC 3049#	0.75	mg/kg	8.0	< 0.75	15	1000

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

	Lab No	1663737	1663978	1665133	1665134
	Sample ID	PRAIRIE_AUK_TP105	PRAIRIE_AUK_BH104	PRAIRIE_AUK_TP172	PRAIRIE_AUK_TP175
	Depth	2.50	5.50	0.80	0.80
	Other ID	11	1	3	3
	Sample Type	ES	ES	ES	ES
	Sampling Date	01/04/2020	03/04/2020	06/04/2020	06/04/2020
	Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.13
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	2.1
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	93
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	350
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	67
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	510
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.15
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.22
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	1.3
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	2.1	< 0.9	< 0.9	250
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	3.1	< 0.5	2.3	2100
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	7.6	< 0.6	21	830
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	9.7	< 1.4	33	210
Aromatic C5-C35	DETSC 3072*	10	mg/kg	23	< 10	57	3400
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	23	< 10	57	3900
EPH (C10-C40)	DETSC 3311#	10	mg/kg	78	< 10	360	10000
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	0.06	< 0.03	0.35	24
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.92	19
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.62	< 0.03	0.99	98
Fluorene	DETSC 3303	0.03	mg/kg	0.57	< 0.03	1.6	74
Phenanthrene	DETSC 3303#	0.03	mg/kg	3.1	< 0.03	8.0	98
Anthracene	DETSC 3303	0.03	mg/kg	0.53	< 0.03	8.0	30
Fluoranthene	DETSC 3303#	0.03	mg/kg	3.0	< 0.03	12	41
Pyrene	DETSC 3303#	0.03	mg/kg	2.3	< 0.03	11	30
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.74	< 0.03	6.5	13
Chrysene	DETSC 3303	0.03	mg/kg	0.85	< 0.03	4.8	12
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.92	< 0.03	5.6	12
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.30	< 0.03	2.8	59
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.55	< 0.03	3.9	120
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.28	< 0.03	2.4	53
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.08	< 0.03	0.61	15
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.35	< 0.03	2.9	64
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	14	< 0.10	72	760

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1663737	1663978	1665133	1665134
			Sample ID	PRAIRIE_AUK_TP105	PRAIRIE_AUK_BH104	PRAIRIE_AUK_TP172	PRAIRIE_AUK_TP175
			Depth	2.50	5.50	0.80	0.80
			Other ID	11	1	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	01/04/2020	03/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	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				
PCB 7 Total	DETSC 3401#	0.01	mg/kg				
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	1.4	< 0.3	5.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1665135	1665136	1665137	1665138
				Sample ID	PRAIRIE_AUK_TP175	PRAIRIE_AUK_TP178	PRAIRIE_AUK_BH106	PRAIRIE_AUK_TP107
				Depth	1.80	0.80	5.50	1.80
				Other ID	6	3	1	6
				Sample Type	ES	ES	ES	ES
				Sampling Date	06/04/2020	06/04/2020	06/04/2020	06/04/2020
				Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Asbestos Quantification	DETSC 1102	0.001	%					
Metals								
Aluminium	DETSC 2301*	1	mg/kg	14000	16000	15000	12000
Antimony	DETSC 2301*	1	mg/kg	1.2	2.4	1.5	4.8
Arsenic	DETSC 2301#	0.2	mg/kg	8.4	18	6.4	33
Barium	DETSC 2301#	1.5	mg/kg	340	250	160	270
Beryllium	DETSC 2301#	0.2	mg/kg	1.2	2.2	1.2	2.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.8	1.5	1.1	2.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.4	0.2	1.4
Chromium	DETSC 2301#	0.15	mg/kg	28	18	52	90
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	31	91	32	120
Iron	DETSC 2301	25	mg/kg	35000	70000	32000	87000
Lead	DETSC 2301#	0.3	mg/kg	30	70	20	120
Magnesium	DETSC 2301*	1	mg/kg	6000	5900	14000	7400
Manganese	DETSC 2301#	20	mg/kg	900	670	1200	3200
Mercury	DETSC 2325#	0.05	mg/kg	0.19	0.13	0.78	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4	3.6	0.6	4.0
Nickel	DETSC 2301#	1	mg/kg	34	41	25	58
Silicon	DETSC 2301*	10	mg/kg	180000	66000	140000	50000
Vanadium	DETSC 2301#	0.8	mg/kg	33	96	150	280
Zinc	DETSC 2301#	1	mg/kg	83	160	69	350
Inorganics								
Loss on Ignition at 440oC	DETSC 2003#	0.01	%		26		
pH	DETSC 2008#		pH	8.4	8.0	11.1	9.7
Calorific Value	DETSC 5008	1	MJ/kg		13.5		
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.0	2.5	0.2	1.6
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	%	3.2	12	1.9	13
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	35	61	310	200
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	< 0.75	0.92	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665135	1665136	1665137	1665138
			Sample ID	PRAIRIE_AUK_TP175	PRAIRIE_AUK_TP178	PRAIRIE_AUK_BH106	PRAIRIE_AUK_TP107
			Depth	1.80	0.80	5.50	1.80
			Other ID	6	3	1	6
			Sample Type	ES	ES	ES	ES
			Sampling Date	06/04/2020	06/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.37	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	7.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	31	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	39	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	0.48	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.24	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.64	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	85	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	310	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	160	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	96	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	650	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	690	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	1200	< 10	< 10	< 10
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	440	0.06	0.11	0.06
Acenaphthylene	DETSC 3303#	0.03	mg/kg	31	0.03	< 0.03	0.04
Acenaphthene	DETSC 3303#	0.03	mg/kg	340	0.09	0.13	0.07
Fluorene	DETSC 3303	0.03	mg/kg	220	0.09	0.12	0.06
Phenanthrene	DETSC 3303#	0.03	mg/kg	290	0.12	0.22	0.42
Anthracene	DETSC 3303	0.03	mg/kg	53	< 0.03	0.03	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	87	0.11	0.13	1.2
Pyrene	DETSC 3303#	0.03	mg/kg	62	0.08	0.10	1.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	27	0.07	0.05	0.71
Chrysene	DETSC 3303	0.03	mg/kg	23	0.06	0.05	0.66
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	23	0.06	0.05	1.0
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	10	< 0.03	< 0.03	0.41
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	20	0.04	0.03	0.54
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	8.6	< 0.03	< 0.03	0.31
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	2.5	< 0.03	< 0.03	0.10
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	10	< 0.03	< 0.03	0.35
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1700	0.76	0.97	7.1

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665135	1665136	1665137	1665138
			Sample ID	PRAIRIE_AUK_TP175	PRAIRIE_AUK_TP178	PRAIRIE_AUK_BH106	PRAIRIE_AUK_TP107
			Depth	1.80	0.80	5.50	1.80
			Other ID	6	3	1	6
			Sample Type	ES	ES	ES	ES
			Sampling Date	06/04/2020	06/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	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				
PCB 7 Total	DETSC 3401#	0.01	mg/kg				
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	3.9	0.5	< 0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665139	1665140	1665141	1665142
			Sample ID	PRAIRIE_AUK_TP107	PRAIRIE_AUK_TP108	PRAIRIE_AUK_TP108	PRAIRIE_AUK_TP113
			Depth	0.80	1.00	2.00	1.30
			Other ID	11	5	8	5
			Sample Type	ES	ES	ES	ES
			Sampling Date	06/04/2020	06/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%		0.001	0.002	0.006
Metals							
Aluminium	DETSC 2301*	1	mg/kg	12000	23000	10000	21000
Antimony	DETSC 2301*	1	mg/kg	< 1.0	5.3	11	4.5
Arsenic	DETSC 2301#	0.2	mg/kg	9.2	11	31	18
Barium	DETSC 2301#	1.5	mg/kg	290	650	830	320
Beryllium	DETSC 2301#	0.2	mg/kg	1.2	2.3	1.0	2.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.6	1.5	1.9	4.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	1.5	5.8	1.3
Chromium	DETSC 2301#	0.15	mg/kg	25	340	620	150
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23	40	89	72
Iron	DETSC 2301	25	mg/kg	33000	57000	100000	75000
Lead	DETSC 2301#	0.3	mg/kg	36	120	320	140
Magnesium	DETSC 2301*	1	mg/kg	3800	21000	23000	18000
Manganese	DETSC 2301#	20	mg/kg	440	14000	16000	7800
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.06	0.06	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7	3.5	6.7	2.3
Nickel	DETSC 2301#	1	mg/kg	30	16	40	24
Silicon	DETSC 2301*	10	mg/kg	190000	54000	49000	63000
Vanadium	DETSC 2301#	0.8	mg/kg	40	950	1600	280
Zinc	DETSC 2301#	1	mg/kg	98	230	520	280
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%		8.1	4.8	
pH	DETSC 2008#		pH	8.6	11.7	11.9	11.3
Calorific Value	DETSC 5008	1	MJ/kg		< 1.0	< 1.0	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	22	0.5	0.7	5.9
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	%	1.2	1.4	1.9	4.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	270	330	160	320
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	5.3	3.5	2.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665139	1665140	1665141	1665142
			Sample ID	PRAIRIE_AUK_TP107	PRAIRIE_AUK_TP108	PRAIRIE_AUK_TP108	PRAIRIE_AUK_TP113
			Depth	0.80	1.00	2.00	1.30
			Other ID	11	5	8	5
			Sample Type	ES	ES	ES	ES
			Sampling Date	06/04/2020	06/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	31	13	46
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	32	14	46
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	1.6	0.8
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	5.1	7.9	7.1
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	67	36	76
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	72	46	84
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	100	60	130
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	420	180	230
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	0.23	0.06	0.20	0.21
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.06	0.03	0.56	0.15
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.14	0.15	0.48	0.13
Fluorene	DETSC 3303	0.03	mg/kg	0.17	0.13	0.94	0.23
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44	1.3	4.2	1.8
Anthracene	DETSC 3303	0.03	mg/kg	0.07	0.30	1.9	0.52
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.57	4.1	9.7	5.0
Pyrene	DETSC 3303#	0.03	mg/kg	0.46	4.2	8.6	6.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.26	3.3	7.8	3.0
Chrysene	DETSC 3303	0.03	mg/kg	0.28	2.1	4.8	2.3
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.32	4.0	12	3.1
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.13	1.8	6.2	1.2
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.21	2.4	8.4	2.3
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.10	1.1	3.1	0.79
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	0.28	0.72	0.23
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11	1.3	2.9	1.0
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	3.5	26	73	28

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665139	1665140	1665141	1665142
			Sample ID	PRAIRIE_AUK_TP107	PRAIRIE_AUK_TP108	PRAIRIE_AUK_TP108	PRAIRIE_AUK_TP113
			Depth	0.80	1.00	2.00	1.30
			Other ID	11	5	8	5
			Sample Type	ES	ES	ES	ES
			Sampling Date	06/04/2020	06/04/2020	06/04/2020	06/04/2020
			Sampling Time	n/s	n/s	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				
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

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665286	1665288	1665290	1665291
			Sample ID	PRAIRIE_AUK_BH103	PRAIRIE_AUK_TP115	PRAIRIE_AUK_TP122	PRAIRIE_AUK_TP123
			Depth	2.50	1.90	1.00	0.60
			Other ID	1	6	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	08/04/2020	08/04/2020	08/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%			0.002	
Metals							
Aluminium	DETSC 2301*	1	mg/kg	14000	35000	10000	16000
Antimony	DETSC 2301*	1	mg/kg	1.5	1.4	6.6	5.0
Arsenic	DETSC 2301#	0.2	mg/kg	11	4.2	10	14
Barium	DETSC 2301#	1.5	mg/kg	270	370	160	240
Beryllium	DETSC 2301#	0.2	mg/kg	1.4	3.9	1.2	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.7	4.4	2.0	3.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	< 0.1	2.6	0.5
Chromium	DETSC 2301#	0.15	mg/kg	30	66	85	190
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	39	10	170	68
Iron	DETSC 2301	25	mg/kg	42000	14000	180000	86000
Lead	DETSC 2301#	0.3	mg/kg	50	4.6	91	56
Magnesium	DETSC 2301*	1	mg/kg	9500	33000	6000	16000
Manganese	DETSC 2301#	20	mg/kg	1200	4100	2400	9400
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	< 0.05	< 0.05	0.29
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8	0.4	12	3.2
Nickel	DETSC 2301#	1	mg/kg	34	2.9	65	19
Silicon	DETSC 2301*	10	mg/kg	160000	77000	39000	95000
Vanadium	DETSC 2301#	0.8	mg/kg	47	230	71	360
Zinc	DETSC 2301#	1	mg/kg	130	33	3000	200
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%			2.1	
pH	DETSC 2008#		pH	9.7	11.4	11.2	11.9
Calorific Value	DETSC 5008	1	MJ/kg			< 1.0	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5	1.6	9.5	29
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	0.8	< 0.6	6.3
Organic matter	DETSC 2002#	0.1	%	3.7	0.8	1.5	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	470	400	230	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	3.4	4.5	< 0.75	7.9

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665286	1665288	1665290	1665291
			Sample ID	PRAIRIE_AUK_BH103	PRAIRIE_AUK_TP115	PRAIRIE_AUK_TP122	PRAIRIE_AUK_TP123
			Depth	2.50	1.90	1.00	0.60
			Other ID	1	6	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	08/04/2020	08/04/2020	08/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	40
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	290
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	24	190
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	24	520
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	16
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	99
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	< 1.4	100
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	220
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	24	730
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10	< 10	120	1500
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	0.29	< 0.03	< 0.03	< 0.30
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.30
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.30
Fluorene	DETSC 3303	0.03	mg/kg	0.04	< 0.03	< 0.03	< 0.30
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.12	0.05	0.08	0.48
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.30
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.10	0.11	0.11	0.92
Pyrene	DETSC 3303#	0.03	mg/kg	0.07	0.09	0.09	0.72
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.03	0.05	0.04	0.56
Chrysene	DETSC 3303	0.03	mg/kg	0.04	0.05	0.06	0.50
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.05	0.06	0.53
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.03	< 0.30
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.30
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.03	0.36
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.30
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.30
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.62	0.39	0.44	< 3.37

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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Contract Title Prairie Site Ground Investigation Works

			Lab No	1665286	1665288	1665290	1665291
			Sample ID	PRAIRIE_AUK_BH103	PRAIRIE_AUK_TP115	PRAIRIE_AUK_TP122	PRAIRIE_AUK_TP123
			Depth	2.50	1.90	1.00	0.60
			Other ID	1	6	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	08/04/2020	08/04/2020	08/04/2020
			Sampling Time	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		
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		
PCB 7 Total	DETSC 3401#	0.01	mg/kg		< 0.01		
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.4	< 0.3	< 0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665292	1665293	1665295	1665450
			Sample ID	PRAIRIE_AUK_TP185	PRAIRIE_AUK_TP186	PRAIRIE_AUK_TP188	PRAIRIE_AUK_TP121
			Depth	4.30	0.50	1.00	1.50
			Other ID	5	3	3	4
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	07/04/2020	08/04/2020	09/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%				
Metals							
Aluminium	DETSC 2301*	1	mg/kg	11000	15000	11000	8100
Antimony	DETSC 2301*	1	mg/kg	1.3	4.7	3.9	11
Arsenic	DETSC 2301#	0.2	mg/kg	8.1	150	28	1.6
Barium	DETSC 2301#	1.5	mg/kg	220	340	270	210
Beryllium	DETSC 2301#	0.2	mg/kg	0.9	1.4	1.1	0.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.6	1.0	2.4	3.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	3.7	0.2	0.2
Chromium	DETSC 2301#	0.15	mg/kg	23	55	69	750
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32	100	53	21
Iron	DETSC 2301	25	mg/kg	42000	78000	60000	180000
Lead	DETSC 2301#	0.3	mg/kg	23	68	26	14
Magnesium	DETSC 2301*	1	mg/kg	7500	8400	7100	32000
Manganese	DETSC 2301#	20	mg/kg	490	75000	21000	37000
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.60	0.11	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8	38	2.5	3.6
Nickel	DETSC 2301#	1	mg/kg	31	46	27	3.6
Silicon	DETSC 2301*	10	mg/kg	170000	14000	48000	38000
Vanadium	DETSC 2301#	0.8	mg/kg	28	240	150	1700
Zinc	DETSC 2301#	1	mg/kg	160	150	81	56
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	4.4		13	
pH	DETSC 2008#		pH	8.4	10.7	10.6	12.1
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0		12.0	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5	19	2.6	23
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	0.5	< 0.1	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	1.2
Organic matter	DETSC 2002#	0.1	%	1.9	3.0	5.0	1.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120	270	220	32
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	2.7	2.1	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1665292	1665293	1665295	1665450
				Sample ID	PRAIRIE_AUK_TP185	PRAIRIE_AUK_TP186	PRAIRIE_AUK_TP188	PRAIRIE_AUK_TP121
				Depth	4.30	0.50	1.00	1.50
				Other ID	5	3	3	4
				Sample Type	ES	ES	ES	ES
				Sampling Date	08/04/2020	07/04/2020	08/04/2020	09/04/2020
				Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg		< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg		< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg		< 10	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg		< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg		< 0.5	1.6	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg		< 0.6	5.2	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg		< 1.4	8.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg		< 10	16	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg		< 10	16	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg		< 10	130	140	< 10
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg		< 0.03	0.61	0.31	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg		< 0.03	0.59	0.17	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg		< 0.03	0.40	0.13	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg		< 0.03	0.42	0.20	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg		< 0.03	2.5	2.6	0.10
Anthracene	DETSC 3303	0.03	mg/kg		< 0.03	1.3	0.67	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	6.5	4.2	0.39
Pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	5.7	3.2	0.49
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	2.7	1.4	0.18
Chrysene	DETSC 3303	0.03	mg/kg		< 0.03	2.2	1.2	0.26
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	3.0	1.3	0.27
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	1.3	0.57	0.10
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	2.1	0.79	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	0.93	0.27	0.09
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	0.25	0.10	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		< 0.03	1.1	0.33	0.09
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		< 0.10	31	17	2.1

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665292	1665293	1665295	1665450
			Sample ID	PRAIRIE_AUK_TP185	PRAIRIE_AUK_TP186	PRAIRIE_AUK_TP188	PRAIRIE_AUK_TP121
			Depth	4.30	0.50	1.00	1.50
			Other ID	5	3	3	4
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	07/04/2020	08/04/2020	09/04/2020
			Sampling Time	n/s	n/s	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				
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

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665451	1665452	1665453	1665454
			Sample ID	PRAIRIE_AUK_TP138	PRAIRIE_AUK_TP149	PRAIRIE_AUK_TP168	PRAIRIE_AUK_TP173
			Depth	1.20	1.30	0.05	0.90
			Other ID	3	3	1	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	09/04/2020	09/04/2020	09/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%	0.020	< 0.001	< 0.001	< 0.001
Metals							
Aluminium	DETSC 2301*	1	mg/kg	12000	8600	19000	21000
Antimony	DETSC 2301*	1	mg/kg	3.2	2.5	3.9	6.1
Arsenic	DETSC 2301#	0.2	mg/kg	15	37	44	78
Barium	DETSC 2301#	1.5	mg/kg	200	1100	210	210
Beryllium	DETSC 2301#	0.2	mg/kg	0.8	1.1	2.1	2.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.1	2.5	1.5	3.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	0.7	0.6	0.5
Chromium	DETSC 2301#	0.15	mg/kg	150	33	61	93
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	26	110	78	320
Iron	DETSC 2301	25	mg/kg	47000	48000	91000	150000
Lead	DETSC 2301#	0.3	mg/kg	53	180	93	70
Magnesium	DETSC 2301*	1	mg/kg	12000	8000	10000	7700
Manganese	DETSC 2301#	20	mg/kg	5100	2000	2100	4100
Mercury	DETSC 2325#	0.05	mg/kg	2.1	1.4	0.15	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	2.0	2.6	2.1	5.6
Nickel	DETSC 2301#	1	mg/kg	13	27	38	86
Silicon	DETSC 2301*	10	mg/kg	88000	46000	62000	48000
Vanadium	DETSC 2301#	0.8	mg/kg	140	90	200	230
Zinc	DETSC 2301#	1	mg/kg	160	350	330	380
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				
pH	DETSC 2008#		pH	11.5	10.3	9.0	8.7
Calorific Value	DETSC 5008	1	MJ/kg				
Cyanide, Total	DETSC 2130#	0.1	mg/kg	9.9	11	0.6	120
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.3	< 0.1	< 0.1	0.2
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7	< 0.6	< 0.6	1.8
Organic matter	DETSC 2002#	0.1	%	1.3	2.8	12	8.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	150	290	77	540
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.4	1.5	< 0.75	2.4

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665451	1665452	1665453	1665454
			Sample ID	PRAIRIE_AUK_TP138	PRAIRIE_AUK_TP149	PRAIRIE_AUK_TP168	PRAIRIE_AUK_TP173
			Depth	1.20	1.30	0.05	0.90
			Other ID	3	3	1	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	09/04/2020	09/04/2020	09/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	11	12	7.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	13	13	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	7.9	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	30	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	38	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	51	13	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	280	96	< 10	< 10
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	0.04	< 0.03	0.06	2.0
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	0.09
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.05	< 0.03	0.05	0.57
Fluorene	DETSC 3303	0.03	mg/kg	0.04	0.03	0.03	0.20
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44	0.35	0.28	0.37
Anthracene	DETSC 3303	0.03	mg/kg	0.08	0.06	0.04	0.05
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.1	0.87	0.43	0.30
Pyrene	DETSC 3303#	0.03	mg/kg	2.1	0.70	0.37	0.23
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.4	0.36	0.18	0.09
Chrysene	DETSC 3303	0.03	mg/kg	1.2	0.35	0.25	0.14
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.8	0.32	0.24	0.11
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.78	0.14	0.10	0.05
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.2	0.18	0.12	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.58	0.09	0.08	0.04
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.20	0.03	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.0	0.09	0.09	0.04
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	13	3.5	2.3	4.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665451	1665452	1665453	1665454
			Sample ID	PRAIRIE_AUK_TP138	PRAIRIE_AUK_TP149	PRAIRIE_AUK_TP168	PRAIRIE_AUK_TP173
			Depth	1.20	1.30	0.05	0.90
			Other ID	3	3	1	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	09/04/2020	09/04/2020	09/04/2020
			Sampling Time	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			
PCB 52	DETSC 3401#	0.01	mg/kg	0.26			
PCB 101	DETSC 3401#	0.01	mg/kg	0.44			
PCB 118	DETSC 3401#	0.01	mg/kg	0.40			
PCB 153	DETSC 3401#	0.01	mg/kg	0.24			
PCB 138	DETSC 3401#	0.01	mg/kg	0.40			
PCB 180	DETSC 3401#	0.01	mg/kg	0.05			
PCB 7 Total	DETSC 3401#	0.01	mg/kg	1.8			
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3	0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665455	1665588	1665589	1665590
			Sample ID	PRAIRIE_AUK_SURFACE1	PRAIRIE_AUK_TP114	PRAIRIE_AUK_TP124	PRAIRIE_AUK_TP174
			Depth	0.00	0.90	1.50	0.80
			Other ID	1	6	5	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	07/04/2020	08/04/2020	08/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%			0.002	
Metals							
Aluminium	DETSC 2301*	1	mg/kg	4800	12000	8300	9200
Antimony	DETSC 2301*	1	mg/kg	< 1.0	4.6	3.8	5.6
Arsenic	DETSC 2301#	0.2	mg/kg	1.8	51	40	58
Barium	DETSC 2301#	1.5	mg/kg	130	140	350	250
Beryllium	DETSC 2301#	0.2	mg/kg	0.5	1.3	0.8	0.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.9	0.8	7.2	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.1	3.9	3.1	0.3
Chromium	DETSC 2301#	0.15	mg/kg	1.7	66	48	81
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	5.9	110	69	120
Iron	DETSC 2301	25	mg/kg	2700	69000	51000	120000
Lead	DETSC 2301#	0.3	mg/kg	10	330	90	110
Magnesium	DETSC 2301*	1	mg/kg	4700	3900	9900	8600
Manganese	DETSC 2301#	20	mg/kg	1500	2000	23000	99000
Mercury	DETSC 2325#	0.05	mg/kg	0.22	0.35	0.26	0.33
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4	2.5	4.0	18
Nickel	DETSC 2301#	1	mg/kg	1.6	47	32	78
Silicon	DETSC 2301*	10	mg/kg	9500	U/S	100000	36000
Vanadium	DETSC 2301#	0.8	mg/kg	7.9	110	100	67
Zinc	DETSC 2301#	1	mg/kg	47	4200	340	160
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				6.5
pH	DETSC 2008#		pH	10.8	8.3	9.7	8.4
Calorific Value	DETSC 5008	1	MJ/kg				2.5
Cyanide, Total	DETSC 2130#	0.1	mg/kg	21	0.6	41	5.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5	< 0.1	0.2	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	6.6	2.2	1.7	1.3
Organic matter	DETSC 2002#	0.1	%	1.3	2.5	1.6	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	670	44	130	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	13	< 0.75	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1665455	1665588	1665589	1665590
				Sample ID	PRAIRIE_AUK_SURFACE1	PRAIRIE_AUK_TP114	PRAIRIE_AUK_TP124	PRAIRIE_AUK_TP174
				Depth	0.00	0.90	1.50	0.80
				Other ID	1	6	5	3
				Sample Type	ES	ES	ES	ES
				Sampling Date	09/04/2020	07/04/2020	08/04/2020	08/04/2020
				Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01	< 1.00	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 1.00	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	1.5	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg		< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg		< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg		< 10	< 763.0	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01	6.0	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01	5.6	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	15	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg		< 0.9	130	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg		< 0.5	97	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg		< 0.6	150	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg		< 1.4	83	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg		< 10	490	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg		< 10	1300	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg		< 10			
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg		< 0.03	37000	0.05	0.11
Acenaphthylene	DETSC 3303#	0.03	mg/kg		< 0.03	5600	0.07	0.27
Acenaphthene	DETSC 3303#	0.03	mg/kg		< 0.03	41	< 0.03	0.17
Fluorene	DETSC 3303	0.03	mg/kg		< 0.03	6200	< 0.03	0.23
Phenanthrene	DETSC 3303#	0.03	mg/kg		< 0.03	22000	1.2	1.7
Anthracene	DETSC 3303	0.03	mg/kg		< 0.03	5700	0.22	0.43
Fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	11000	4.4	3.2
Pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	9700	3.8	2.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	4600	1.6	0.96
Chrysene	DETSC 3303	0.03	mg/kg		< 0.03	3600	1.8	0.93
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	91	1.7	0.92
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		< 0.03	49	0.86	0.39
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	92	0.66	0.60
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		< 0.03	31	0.62	0.30
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	8.4	0.21	0.09
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		< 0.03	29	0.72	0.35
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		< 0.10	110000	18	13

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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	Lab No	1665455	1665588	1665589	1665590
	Sample ID	PRAIRIE_AUK_SURFACE1	PRAIRIE_AUK_TP114	PRAIRIE_AUK_TP124	PRAIRIE_AUK_TP174
	Depth	0.00	0.90	1.50	0.80
	Other ID	1	6	5	3
	Sample Type	ES	ES	ES	ES
	Sampling Date	09/04/2020	07/04/2020	08/04/2020	08/04/2020
	Sampling Time	n/s	n/s	n/s	n/s

Test	Method	LOD	Units				
PCBs							
PCB 28 + PCB 31	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 52	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 101	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 118	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 153	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 138	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 180	DETSC 3401#	0.01	mg/kg		< 0.05		
PCB 7 Total	DETSC 3401#	0.01	mg/kg		< 0.01		
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	210	< 0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665591	1665592	1665593	1665594
			Sample ID	PRAIRIE_AUK_TP174	PRAIRIE_AUK_TP176	PRAIRIE_AUK_TP177	PRAIRIE_AUK_TP189
			Depth	1.60	0.90	0.60	3.00
			Other ID	6	3	2	7
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	07/04/2020	07/04/2020	07/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%				
Metals							
Aluminium	DETSC 2301*	1	mg/kg	12000	30000	31000	19000
Antimony	DETSC 2301*	1	mg/kg	< 1.0	3.0	2.8	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	6.2	83	37	9.9
Barium	DETSC 2301#	1.5	mg/kg	84	260	120	260
Beryllium	DETSC 2301#	0.2	mg/kg	0.6	3.7	4.0	1.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.2	4.2	2.9	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1	0.4	0.2	0.2
Chromium	DETSC 2301#	0.15	mg/kg	20	58	110	33
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	17	80	26	30
Iron	DETSC 2301	25	mg/kg	32000	100000	80000	46000
Lead	DETSC 2301#	0.3	mg/kg	23	61	29	27
Magnesium	DETSC 2301*	1	mg/kg	2300	13000	11000	13000
Manganese	DETSC 2301#	20	mg/kg	370	1600	1600	830
Mercury	DETSC 2325#	0.05	mg/kg	0.06	0.08	< 0.05	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6	3.2	1.2	0.6
Nickel	DETSC 2301#	1	mg/kg	11	65	32	42
Silicon	DETSC 2301*	10	mg/kg	190000	71000	61000	140000
Vanadium	DETSC 2301#	0.8	mg/kg	27	190	450	42
Zinc	DETSC 2301#	1	mg/kg	58	360	260	94
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%		12		
pH	DETSC 2008#		pH	7.2	8.4	8.7	7.9
Calorific Value	DETSC 5008	1	MJ/kg		5.0		
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.0	0.2	0.4	< 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	1.2	0.8	0.8	< 0.6
Organic matter	DETSC 2002#	0.1	%	0.7	3.2	2.9	0.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	190	170	83	350
Sulphur (free)	DETSC 3049#	0.75	mg/kg	6.8	< 0.75	< 0.75	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665591	1665592	1665593	1665594
			Sample ID	PRAIRIE_AUK_TP174	PRAIRIE_AUK_TP176	PRAIRIE_AUK_TP177	PRAIRIE_AUK_TP189
			Depth	1.60	0.90	0.60	3.00
			Other ID	6	3	2	7
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	07/04/2020	07/04/2020	07/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	7.3	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg				
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	0.04	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.05	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	0.04	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03	0.17	0.06	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.06	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.05	0.67	0.14	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.04	0.62	0.16	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.03	0.10	0.05	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03	0.15	0.08	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.06	0.05	< 0.03
Benzo(k)fluoranthene	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
Indeno(1,2,3-c,d)pyrene	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
Benzo(g,h,i)perylene	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	2.0	0.53	< 0.10

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665591	1665592	1665593	1665594
			Sample ID	PRAIRIE_AUK_TP174	PRAIRIE_AUK_TP176	PRAIRIE_AUK_TP177	PRAIRIE_AUK_TP189
			Depth	1.60	0.90	0.60	3.00
			Other ID	6	3	2	7
			Sample Type	ES	ES	ES	ES
			Sampling Date	08/04/2020	07/04/2020	07/04/2020	07/04/2020
			Sampling Time	n/s	n/s	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				
PCB 7 Total	DETSC 3401#	0.01	mg/kg				
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	0.8	0.9	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665610	1665611	1665612	1665613
			Sample ID	PRAIRIE_AUK_TP179	PRAIRIE_AUK_TP179	PRAIRIE_AUK_TP181	PRAIRIE_AUK_TP182
			Depth	1.40	2.00	0.60	0.90
			Other ID	4	7	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	09/04/2020	09/04/2020	09/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%				
Metals							
Aluminium	DETSC 2301*	1	mg/kg	39000	15000	18000	21000
Antimony	DETSC 2301*	1	mg/kg	4.6	1.3	4.7	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	88	9.3	45	33
Barium	DETSC 2301#	1.5	mg/kg	79	190	280	82
Beryllium	DETSC 2301#	0.2	mg/kg	4.0	1.7	2.5	3.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.3	1.5	1.5	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.1	0.5	0.2
Chromium	DETSC 2301#	0.15	mg/kg	120	29	23	51
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32	29	130	23
Iron	DETSC 2301	25	mg/kg	160000	39000	41000	87000
Lead	DETSC 2301#	0.3	mg/kg	27	34	380	23
Magnesium	DETSC 2301*	1	mg/kg	11000	4000	6400	7000
Manganese	DETSC 2301#	20	mg/kg	1200	320	12000	1000
Mercury	DETSC 2325#	0.05	mg/kg	0.32	0.05	0.10	0.75
Molybdenum	DETSC 2301#	0.4	mg/kg	2.1	0.5	2.6	0.8
Nickel	DETSC 2301#	1	mg/kg	98	30	23	28
Silicon	DETSC 2301*	10	mg/kg	100000	190000	56000	73000
Vanadium	DETSC 2301#	0.8	mg/kg	360	33	83	150
Zinc	DETSC 2301#	1	mg/kg	200	99	210	130
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				
pH	DETSC 2008#		pH	7.5	7.6	8.6	8.0
Calorific Value	DETSC 5008	1	MJ/kg				
Cyanide, Total	DETSC 2130#	0.1	mg/kg	120	4.8	20	3300
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.3	< 0.1	< 0.1	4.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	2.1	< 0.6	0.9	69
Organic matter	DETSC 2002#	0.1	%	4.4	1.8	6.1	7.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	900	490	220	650
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	< 0.75	60	26

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
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			Lab No	1665610	1665611	1665612	1665613
			Sample ID	PRAIRIE_AUK_TP179	PRAIRIE_AUK_TP179	PRAIRIE_AUK_TP181	PRAIRIE_AUK_TP182
			Depth	1.40	2.00	0.60	0.90
			Other ID	4	7	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	09/04/2020	09/04/2020	09/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.25
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	6.3
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	42
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	49
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	3.6
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	100
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	0.04
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.03	< 0.01	< 0.01	0.31
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.71	< 0.01	< 0.01	13
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	27	< 0.9	< 0.9	1700
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	150	< 0.5	< 0.5	2500
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	31	< 0.6	< 0.6	370
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	9.7	< 1.4	< 1.4	82
Aromatic C5-C35	DETSC 3072*	10	mg/kg	220	< 10	< 10	4600
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	220	< 10	< 10	4700
EPH (C10-C40)	DETSC 3311#	10	mg/kg				
PAHs							
Naphthalene	DETSC 3303#	0.03	mg/kg	190	2.5	0.27	3500
Acenaphthylene	DETSC 3303#	0.03	mg/kg	13	0.07	0.23	1300
Acenaphthene	DETSC 3303#	0.03	mg/kg	200	1.0	1.5	1300
Fluorene	DETSC 3303	0.03	mg/kg	100	0.47	1.1	730
Phenanthrene	DETSC 3303#	0.03	mg/kg	65	0.33	1.2	500
Anthracene	DETSC 3303	0.03	mg/kg	18	0.09	0.31	130
Fluoranthene	DETSC 3303#	0.03	mg/kg	12	0.08	0.56	120
Pyrene	DETSC 3303#	0.03	mg/kg	8.2	0.05	0.42	80
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.7	< 0.03	0.12	6.9
Chrysene	DETSC 3303	0.03	mg/kg	1.5	< 0.03	0.16	5.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.74	< 0.03	0.13	3.1
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.31	< 0.03	0.06	1.6
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.59	< 0.03	0.07	2.1
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.17	< 0.03	0.06	0.66
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05	< 0.03	< 0.03	0.20
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.19	< 0.03	0.06	0.71
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	610	4.6	6.2	7700

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665610	1665611	1665612	1665613
			Sample ID	PRAIRIE_AUK_TP179	PRAIRIE_AUK_TP179	PRAIRIE_AUK_TP181	PRAIRIE_AUK_TP182
			Depth	1.40	2.00	0.60	0.90
			Other ID	4	7	3	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	09/04/2020	09/04/2020	09/04/2020	09/04/2020
			Sampling Time	n/s	n/s	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				
PCB 7 Total	DETSC 3401#	0.01	mg/kg				
Phenols							
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	1.6	0.6	1.0	9.0

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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				Lab No	1665990	1665991	1665992	1665993	1665994
				Sample ID	PRAIRIE_AUK_TP145	PRAIRIE_AUK_TP146C	PRAIRIE_AUK_TP156A	PRAIRIE_AUK_TP162	PRAIRIE_AUK_TP180
				Depth	1.60	1.30	0.30	1.70	0.30
				Other ID	4	5	2	3A	3
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	14/04/2020	14/04/2020	14/04/2020	14/04/2020	14/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Asbestos Quantification	DETSC 1102	0.001	%				0.001		
Metals									
Aluminium	DETSC 2301*	1	mg/kg	11000	16000	26000	16000	15000
Antimony	DETSC 2301*	1	mg/kg	69	9.5	6.5	18	5.6
Arsenic	DETSC 2301#	0.2	mg/kg	64	14	31	2100	12
Barium	DETSC 2301#	1.5	mg/kg	560	250	540	320	270
Beryllium	DETSC 2301#	0.2	mg/kg	1.9	1.9	2.6	2.3	1.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.5	3.2	2.5	2.2	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.8	1.0	0.7	1.7	0.7
Chromium	DETSC 2301#	0.15	mg/kg	120	19	170	100	310
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	20000	420	110	190	31
Iron	DETSC 2301	25	mg/kg	45000	35000	140000	360000	99000
Lead	DETSC 2301#	0.3	mg/kg	1200	210	110	870	94
Magnesium	DETSC 2301*	1	mg/kg	11000	9000	17000	3500	23000
Manganese	DETSC 2301#	20	mg/kg	4900	1700	6100	2800	28000
Mercury	DETSC 2325#	0.05	mg/kg	0.19	0.17	0.69	0.73	0.47
Molybdenum	DETSC 2301#	0.4	mg/kg	2.9	1.0	2.2	73	2.8
Nickel	DETSC 2301#	1	mg/kg	41	17	40	160	16
Silicon	DETSC 2301*	10	mg/kg	23000	69000	43000	53000	67000
Vanadium	DETSC 2301#	0.8	mg/kg	240	57	700	310	1200
Zinc	DETSC 2301#	1	mg/kg	1500	350	310	630	270
Inorganics									
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	11.2	9.6	10.6	8.2	11.5
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.3	13	12	3.6	2.3
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	0.7	< 0.6	< 0.6	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.8	5.8	3.2	3.4	3.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	200	590	280	110	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	5.2	1.2	< 0.75	1.4

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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				Lab No	1665990	1665991	1665992	1665993	1665994
				Sample ID	PRAIRIE_AUK_TP145	PRAIRIE_AUK_TP146C	PRAIRIE_AUK_TP156A	PRAIRIE_AUK_TP162	PRAIRIE_AUK_TP180
				Depth	1.60	1.30	0.30	1.70	0.30
				Other ID	4	5	2	3A	3
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	14/04/2020	14/04/2020	14/04/2020	14/04/2020	14/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg		< 1.5	6.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg		< 1.2	16	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg		< 1.5	45	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg		< 3.4	99	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg		< 10	170	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg		< 0.9	1.3	< 0.9	4.2	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg		< 0.5	1.6	< 0.5	5.1	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg		< 0.6	13	< 0.6	0.7	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg		< 1.4	55	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg		< 10	71	< 10	10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg		< 10	240	< 10	10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg		0.06	0.03	0.05	< 0.03	0.24
Acenaphthylene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	0.03	< 0.03	0.06
Acenaphthene	DETSC 3303#	0.03	mg/kg		0.04	< 0.03	< 0.03	< 0.03	0.11
Fluorene	DETSC 3303	0.03	mg/kg		0.03	< 0.03	0.03	< 0.03	0.09
Phenanthrene	DETSC 3303#	0.03	mg/kg		0.37	0.32	0.63	< 0.03	1.8
Anthracene	DETSC 3303	0.03	mg/kg		0.09	0.07	0.17	< 0.03	0.79
Fluoranthene	DETSC 3303#	0.03	mg/kg		1.5	1.0	3.0	0.03	2.2
Pyrene	DETSC 3303#	0.03	mg/kg		1.4	0.91	3.0	0.03	2.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		0.61	0.43	1.6	0.03	0.82
Chrysene	DETSC 3303	0.03	mg/kg		0.61	0.40	1.3	< 0.03	0.90
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		0.92	0.44	2.0	< 0.03	0.86
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		0.30	0.19	0.79	< 0.03	0.37
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		0.47	0.30	1.2	< 0.03	0.43
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		0.21	0.12	0.58	< 0.03	0.19
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		0.06	0.03	0.15	< 0.03	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		0.30	0.16	0.77	< 0.03	0.27
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		7.0	4.3	15	< 0.10	11

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665990	1665991	1665992	1665993	1665994
			Sample ID	PRAIRIE_AUK_TP145	PRAIRIE_AUK_TP146C	PRAIRIE_AUK_TP156A	PRAIRIE_AUK_TP162	PRAIRIE_AUK_TP180
			Depth	1.60	1.30	0.30	1.70	0.30
			Other ID	4	5	2	3A	3
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	14/04/2020	14/04/2020	14/04/2020	14/04/2020	14/04/2020
			Sampling Time	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			
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			
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

Summary of Chemical Analysis
Soil Samples

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				Lab No	1665995	1666343	1666344	1666345	1666346
				Sample ID	PRAIRIE_AUK_TP163	PRAIRIE_AUK_TP135	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP165
				Depth	1.20	1.30	0.80	2.90	1.00
				Other ID	3	5	3	10	3
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	14/04/2020	15/04/2020	15/04/2020	15/04/2020	15/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001	< 0.001			
Metals									
Aluminium	DETSC 2301*	1	mg/kg	53000	25000	38000	15000	5900
Antimony	DETSC 2301*	1	mg/kg	< 1.0	4.5	< 1.0	1.2	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	12	61	7.0	9.3	23
Barium	DETSC 2301#	1.5	mg/kg	170	500	160	310	150
Beryllium	DETSC 2301#	0.2	mg/kg	7.0	3.3	5.3	1.3	0.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.5	2.6	1.4	0.9	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.1	0.8	0.2	0.2	0.4
Chromium	DETSC 2301#	0.15	mg/kg	12	52	9.1	26	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	40	100	15	29	28
Iron	DETSC 2301	25	mg/kg	6800	3200	8900	40000	41000
Lead	DETSC 2301#	0.3	mg/kg	15	220	5.0	35	43
Magnesium	DETSC 2301*	1	mg/kg	16000	15000	17000	6200	10000
Manganese	DETSC 2301#	20	mg/kg	1200	5300	870	700	18000
Mercury	DETSC 2325#	0.05	mg/kg	0.07	0.37	< 0.05	< 0.05	0.11
Molybdenum	DETSC 2301#	0.4	mg/kg	0.5	5.4	0.5	0.4	1.6
Nickel	DETSC 2301#	1	mg/kg	2.5	33	5.9	37	15
Silicon	DETSC 2301*	10	mg/kg	63000	64000	64000	170000	53000
Vanadium	DETSC 2301#	0.8	mg/kg	41	120	31	31	470
Zinc	DETSC 2301#	1	mg/kg	39	270	54	100	120
Inorganics									
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	10.4	10.3	11.4	8.6	11.4
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1300	0.4	0.6	0.3	1.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.4	< 0.1	< 0.1	< 0.1	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	8.9	0.6	< 0.6	< 0.6	0.6
Organic matter	DETSC 2002#	0.1	%	1.1	3.3	0.5	2.6	13
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	480	400	840	120	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	0.83	2.2	< 0.75	1.4

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1665995	1666343	1666344	1666345	1666346
			Sample ID	PRAIRIE_AUK_TP163	PRAIRIE_AUK_TP135	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP165
			Depth	1.20	1.30	0.80	2.90	1.00
			Other ID	3	5	3	10	3
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	14/04/2020	15/04/2020	15/04/2020	15/04/2020	15/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.35	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1.7	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	96	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	40	< 0.6	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	7.1	< 1.4	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	150	< 10	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	150	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg					
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg	0.85	0.03	< 0.03	< 0.03	0.42
Acenaphthylene	DETSC 3303#	0.03	mg/kg	4.1	< 0.03	< 0.03	< 0.03	0.06
Acenaphthene	DETSC 3303#	0.03	mg/kg	20	0.05	< 0.03	< 0.03	0.05
Fluorene	DETSC 3303	0.03	mg/kg	11	0.03	< 0.03	< 0.03	0.07
Phenanthrene	DETSC 3303#	0.03	mg/kg	7.8	0.57	< 0.03	< 0.03	0.91
Anthracene	DETSC 3303	0.03	mg/kg	11	0.18	< 0.03	< 0.03	0.26
Fluoranthene	DETSC 3303#	0.03	mg/kg	11	2.3	< 0.03	< 0.03	1.0
Pyrene	DETSC 3303#	0.03	mg/kg	7.5	3.4	< 0.03	< 0.03	0.83
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.6	1.1	< 0.03	< 0.03	0.40
Chrysene	DETSC 3303	0.03	mg/kg	1.4	1.2	< 0.03	< 0.03	0.51
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.70	1.3	< 0.03	< 0.03	0.49
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.30	0.53	< 0.03	< 0.03	0.18
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.53	0.87	< 0.03	< 0.03	0.26
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.13	0.37	< 0.03	< 0.03	0.15
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04	0.10	< 0.03	< 0.03	0.05
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.14	0.47	< 0.03	< 0.03	0.19
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	78	12	< 0.10	< 0.10	5.8

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1665995	1666343	1666344	1666345	1666346
			Sample ID	PRAIRIE_AUK_TP163	PRAIRIE_AUK_TP135	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP165
			Depth	1.20	1.30	0.80	2.90	1.00
			Other ID	3	5	3	10	3
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	14/04/2020	15/04/2020	15/04/2020	15/04/2020	15/04/2020
			Sampling Time	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					
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					
PCB 7 Total	DETSC 3401#	0.01	mg/kg					
Phenols								
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	1.1	< 0.3	< 0.3	< 0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1666347	1666348	1666610	1666611	1666612
			Sample ID	PRAIRIE_AUK_TP167	PRAIRIE_AUK_TP169	PRAIRIE_AUK_BH108	PRAIRIE_AUK_TP139B	PRAIRIE_AUK_TP139B
			Depth	2.50	1.50	2.50	0.30	3.30
			Other ID	6	3	1	3	6
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	15/04/2020	15/04/2020	15/04/2020	16/04/2020	16/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Asbestos Quantification	DETSC 1102	0.001	%		< 0.001		< 0.001	
Metals								
Aluminium	DETSC 2301*	1	mg/kg	11000	8600	17000	26000	14000
Antimony	DETSC 2301*	1	mg/kg	2.5	1.7	2.0	5.4	1.4
Arsenic	DETSC 2301#	0.2	mg/kg	5.8	7.3	10	43	7.8
Barium	DETSC 2301#	1.5	mg/kg	220	120	240	810	330
Beryllium	DETSC 2301#	0.2	mg/kg	0.9	0.5	1.6	3.1	1.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.7	1.2	1.4	6.6	0.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.7	0.3	1.9	0.2
Chromium	DETSC 2301#	0.15	mg/kg	120	46	76	77	24
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	17	39	46	94	29
Iron	DETSC 2301	25	mg/kg	42000	27000	46000	84000	40000
Lead	DETSC 2301#	0.3	mg/kg	31	68	38	410	28
Magnesium	DETSC 2301*	1	mg/kg	17000	6300	12000	21000	8700
Manganese	DETSC 2301#	20	mg/kg	8400	2000	1800	16000	700
Mercury	DETSC 2325#	0.05	mg/kg	0.13	0.10	0.27	3.6	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0	1.7	1.0	3.5	0.4
Nickel	DETSC 2301#	1	mg/kg	12	24	37	31	33
Silicon	DETSC 2301*	10	mg/kg	64000	110000	160000	47000	160000
Vanadium	DETSC 2301#	0.8	mg/kg	410	75	200	140	30
Zinc	DETSC 2301#	1	mg/kg	78	150	140	1200	99
Inorganics								
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	11.3	9.8	10.0	11.0	8.1
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.2	0.6	2.0	220	2.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	0.4	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7	0.8	< 0.6	3.1	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.6	13	2.6	2.1	3.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	220	110	180	740	320
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.9	1.1	< 0.75	2.4	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1666347	1666348	1666610	1666611	1666612
				Sample ID	PRAIRIE_AUK_TP167	PRAIRIE_AUK_TP169	PRAIRIE_AUK_BH108	PRAIRIE_AUK_TP139B	PRAIRIE_AUK_TP139B
				Depth	2.50	1.50	2.50	0.30	3.30
				Other ID	6	3	1	3	6
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	15/04/2020	15/04/2020	15/04/2020	16/04/2020	16/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg		< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg		< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg		< 10	< 10	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg		< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg		< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg		< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg		< 1.4	< 1.4	< 1.4	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg		< 10	< 10	< 10	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg		< 10	< 10	< 10	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg		0.20	0.38	< 0.03	0.45	0.31
Acenaphthylene	DETSC 3303#	0.03	mg/kg		0.06	0.09	< 0.03	0.10	0.05
Acenaphthene	DETSC 3303#	0.03	mg/kg		0.09	< 0.03	< 0.03	0.60	0.36
Fluorene	DETSC 3303	0.03	mg/kg		0.12	0.13	< 0.03	0.55	0.27
Phenanthrene	DETSC 3303#	0.03	mg/kg		1.5	1.9	0.04	1.5	0.33
Anthracene	DETSC 3303	0.03	mg/kg		0.37	0.50	< 0.03	0.34	0.06
Fluoranthene	DETSC 3303#	0.03	mg/kg		1.8	2.1	0.08	1.6	0.11
Pyrene	DETSC 3303#	0.03	mg/kg		1.4	1.7	0.07	1.3	0.08
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		0.55	0.65	< 0.03	0.30	0.04
Chrysene	DETSC 3303	0.03	mg/kg		0.69	0.67	< 0.03	0.52	0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		0.69	0.56	0.04	0.43	0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		0.26	0.22	< 0.03	0.17	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		0.32	0.31	< 0.03	0.20	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		0.20	0.13	< 0.03	0.12	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		0.06	0.04	< 0.03	0.04	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		0.24	0.16	< 0.03	0.16	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		8.6	9.5	0.23	8.3	1.6

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1666347	1666348	1666610	1666611	1666612
				Sample ID	PRAIRIE_AUK_TP167	PRAIRIE_AUK_TP169	PRAIRIE_AUK_BH108	PRAIRIE_AUK_TP139B	PRAIRIE_AUK_TP139B
				Depth	2.50	1.50	2.50	0.30	3.30
				Other ID	6	3	1	3	6
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	15/04/2020	15/04/2020	15/04/2020	16/04/2020	16/04/2020
				Sampling Time	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						
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						
PCB 7 Total	DETSC 3401#	0.01	mg/kg						
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3	< 0.3	0.5	< 0.3	< 0.3

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
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				Lab No	1666613	1666614	1666615	1666616	1667231
				Sample ID	PRAIRIE_AUK_TP148A	PRAIRIE_AUK_TP150	PRAIRIE_AUK_TP159	PRAIRIE_AUK_TP190A	PRAIRIE_AUK_BH105
				Depth	1.40	1.50	0.60	1.10	3.00
				Other ID	5	3	3	3	1
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	16/04/2020	16/04/2020	16/04/2020	16/04/2020	16/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Asbestos Quantification	DETSC 1102	0.001	%		0.009	0.002	0.003	
Metals									
Aluminium	DETSC 2301*	1	mg/kg	20000	7700	15000	15000	13000
Antimony	DETSC 2301*	1	mg/kg	2.7	7.6	< 1.0	1.6	2.0
Arsenic	DETSC 2301#	0.2	mg/kg	24	30	6.1	21	8.7
Barium	DETSC 2301#	1.5	mg/kg	330	400	340	560	170
Beryllium	DETSC 2301#	0.2	mg/kg	2.3	0.8	3.2	1.3	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.7	1.9	2.0	6.6	1.2
Cadmium	DETSC 2301#	0.1	mg/kg	1.0	1.3	0.1	1.5	0.2
Chromium	DETSC 2301#	0.15	mg/kg	69	75	53	24	34
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	39	130	14	54	40
Iron	DETSC 2301	25	mg/kg	53000	180000	18000	34000	41000
Lead	DETSC 2301#	0.3	mg/kg	65	420	13	160	40
Magnesium	DETSC 2301*	1	mg/kg	14000	8200	12000	8900	10000
Manganese	DETSC 2301#	20	mg/kg	16000	2400	4600	24000	730
Mercury	DETSC 2325#	0.05	mg/kg	1.3	2.6	0.13	1.8	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	2.9	5.8	0.7	3.6	1.0
Nickel	DETSC 2301#	1	mg/kg	23	54	5.8	24	37
Silicon	DETSC 2301*	10	mg/kg	51000	53000	59000	62000	160000
Vanadium	DETSC 2301#	0.8	mg/kg	110	110	160	49	41
Zinc	DETSC 2301#	1	mg/kg	200	830	65	630	140
Inorganics									
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	11.3	10.1	10.7	10.8	8.5
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	22	8.2	0.9	240	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1	0.1	< 0.1	0.6	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.2	< 0.6	1.5	4.7	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.7	2.1	2.0	2.6	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	630	350	550	530	220
Sulphur (free)	DETSC 3049#	0.75	mg/kg	63	3.5	12	1.1	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1666613	1666614	1666615	1666616	1667231
			Sample ID	PRAIRIE_AUK_TP148A	PRAIRIE_AUK_TP150	PRAIRIE_AUK_TP159	PRAIRIE_AUK_TP190A	PRAIRIE_AUK_BH105
			Depth	1.40	1.50	0.60	1.10	3.00
			Other ID	5	3	3	3	1
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	16/04/2020	16/04/2020	16/04/2020	16/04/2020	16/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	18	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	18	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	18	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg					
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg	0.23	0.53	0.20	0.07	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	0.07	0.08	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.27	0.67	0.23	0.16	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.21	0.49	0.16	0.09	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.5	1.6	0.27	1.4	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.18	0.34	0.10	0.14	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.2	2.1	1.1	3.0	0.04
Pyrene	DETSC 3303#	0.03	mg/kg	1.8	1.7	1.6	2.8	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.50	0.50	0.39	0.96	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.77	0.68	0.73	1.1	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.66	0.67	1.5	1.2	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.29	0.28	0.70	0.51	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.44	0.36	0.77	0.80	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.20	0.20	0.49	0.31	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06	0.06	0.14	0.09	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.24	0.24	0.59	0.38	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	9.4	10	9.0	13	< 0.10

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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	Lab No	1666613	1666614	1666615	1666616	1667231
	Sample ID	PRAIRIE_AUK_TP148A	PRAIRIE_AUK_TP150	PRAIRIE_AUK_TP159	PRAIRIE_AUK_TP190A	PRAIRIE_AUK_BH105
	Depth	1.40	1.50	0.60	1.10	3.00
	Other ID	5	3	3	3	1
	Sample Type	ES	ES	ES	ES	ES
	Sampling Date	16/04/2020	16/04/2020	16/04/2020	16/04/2020	16/04/2020
	Sampling Time	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					
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					
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

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1667232	1667233	1667234	1667235	1667236
			Sample ID	PRAIRIE_AUK_TP126	PRAIRIE_AUK_TP128	PRAIRIE_AUK_TP129	PRAIRIE_AUK_TP130	PRAIRIE_AUK_TP147
			Depth	2.60	0.90	2.10	1.00	1.50
			Other ID	5	3	4A	4A	4
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	17/04/2020	17/04/2020	17/04/2020	17/04/2020	17/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Asbestos Quantification	DETSC 1102	0.001	%		< 0.001			< 0.001
Metals								
Aluminium	DETSC 2301*	1	mg/kg	9800	3300	11000	9200	19000
Antimony	DETSC 2301*	1	mg/kg	4.1	< 1.0	1.4	2.9	3.6
Arsenic	DETSC 2301#	0.2	mg/kg	13	5.4	8.2	34	14
Barium	DETSC 2301#	1.5	mg/kg	160	89	430	130	390
Beryllium	DETSC 2301#	0.2	mg/kg	1.1	0.8	1.0	1.6	1.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	5.2	1.3	1.8	1.6	3.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.5	< 0.1	0.4	0.4	0.8
Chromium	DETSC 2301#	0.15	mg/kg	50	8.8	25	69	99
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	86	35	29	56	58
Iron	DETSC 2301	25	mg/kg	110000	4800	35000	60000	56000
Lead	DETSC 2301#	0.3	mg/kg	82	27	40	100	220
Magnesium	DETSC 2301*	1	mg/kg	7500	1500	4100	4400	14000
Manganese	DETSC 2301#	20	mg/kg	2200	61	1300	2200	4100
Mercury	DETSC 2325#	0.05	mg/kg	0.22	< 0.05	< 0.05	0.18	0.83
Molybdenum	DETSC 2301#	0.4	mg/kg	2.2	< 0.4	0.6	1.7	1.8
Nickel	DETSC 2301#	1	mg/kg	28	12	39	38	20
Silicon	DETSC 2301*	10	mg/kg	23000	140000	180000	93000	87000
Vanadium	DETSC 2301#	0.8	mg/kg	160	10	33	170	190
Zinc	DETSC 2301#	1	mg/kg	440	39	140	280	340
Inorganics								
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	10.3	8.6	8.8	9.3	10.9
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	7.9	0.6	0.5	3.0	29
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1	< 0.1	< 0.1	< 0.1	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.2	< 0.6	< 0.6	< 0.6	2.5
Organic matter	DETSC 2002#	0.1	%	12	3.6	2.1	5.3	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1200	25	270	100	480
Sulphur (free)	DETSC 3049#	0.75	mg/kg	24	< 0.75	< 0.75	< 0.75	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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				Lab No	1667232	1667233	1667234	1667235	1667236
				Sample ID	PRAIRIE_AUK_TP126	PRAIRIE_AUK_TP128	PRAIRIE_AUK_TP129	PRAIRIE_AUK_TP130	PRAIRIE_AUK_TP147
				Depth	2.60	0.90	2.10	1.00	1.50
				Other ID	5	3	4A	4A	4
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	17/04/2020	17/04/2020	17/04/2020	17/04/2020	17/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Petroleum Hydrocarbons									
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	0.20	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg		< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg		< 1.2	25	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg		< 1.5	2.1	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg		< 3.4	< 3.4	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg		< 10	28	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg		< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg		< 0.01	2.2	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg		< 0.9	320	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg		< 0.5	1400	< 0.5	< 0.5	1.3
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg		< 0.6	6.4	< 0.6	< 0.6	4.8
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg		< 1.4	< 1.4	< 1.4	< 1.4	23
Aromatic C5-C35	DETSC 3072*	10	mg/kg		< 10	1700	< 10	< 10	29
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg		< 10	1700	< 10	< 10	29
EPH (C10-C40)	DETSC 3311#	10	mg/kg						
PAHs									
Naphthalene	DETSC 3303#	0.03	mg/kg		0.14	520	3.2	0.05	0.07
Acenaphthylene	DETSC 3303#	0.03	mg/kg		0.05	5.5	< 0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg		0.30	520	3.6	0.16	0.09
Fluorene	DETSC 3303	0.03	mg/kg		0.29	100	0.66	0.04	0.05
Phenanthrene	DETSC 3303#	0.03	mg/kg		0.73	5.1	0.09	0.18	0.73
Anthracene	DETSC 3303	0.03	mg/kg		0.77	1.1	0.09	0.04	0.77
Fluoranthene	DETSC 3303#	0.03	mg/kg		0.56	0.34	< 0.03	0.24	2.0
Pyrene	DETSC 3303#	0.03	mg/kg		0.45	0.24	< 0.03	0.20	2.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg		0.19	0.15	< 0.03	0.11	1.1
Chrysene	DETSC 3303	0.03	mg/kg		0.19	0.16	< 0.03	0.13	1.1
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg		0.20	0.17	< 0.03	0.11	1.4
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg		0.09	0.08	< 0.03	0.06	0.61
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg		0.12	0.10	< 0.03	0.05	0.88
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg		0.07	0.09	< 0.03	0.05	0.55
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg		< 0.03	< 0.03	< 0.03	< 0.03	0.17
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg		0.07	0.08	< 0.03	0.04	0.65
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg		4.2	1200	7.7	1.4	12

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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				Lab No	1667232	1667233	1667234	1667235	1667236
				Sample ID	PRAIRIE_AUK_TP126	PRAIRIE_AUK_TP128	PRAIRIE_AUK_TP129	PRAIRIE_AUK_TP130	PRAIRIE_AUK_TP147
				Depth	2.60	0.90	2.10	1.00	1.50
				Other ID	5	3	4A	4A	4
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	17/04/2020	17/04/2020	17/04/2020	17/04/2020	17/04/2020
				Sampling Time	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						
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						
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	

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1667237	1667238	1667501	1667502	1667503
			Sample ID	PRAIRIE_AUK_TP158	PRAIRIE_AUK_TP157	PRAIRIE_AUK_TP120A	PRAIRIE_AUK_TP134	PRAIRIE_AUK_TP134
			Depth	1.30	0.80	1.00	1.00	2.00
			Other ID	3	2	3	3	6
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	17/04/2020	17/04/2020	20/04/2020	20/04/2020	20/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Asbestos Quantification	DETSC 1102	0.001	%		< 0.001	0.001		
Metals								
Aluminium	DETSC 2301*	1	mg/kg	10000	9600	21000	8700	13000
Antimony	DETSC 2301*	1	mg/kg	1.8	4.3	4.0	18	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	9.1	10	12	61	9.0
Barium	DETSC 2301#	1.5	mg/kg	390	200	330	200	300
Beryllium	DETSC 2301#	0.2	mg/kg	1.7	1.0	3.1	0.9	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	7.4	3.5	4.9	2.6	0.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.6	0.8	0.8	0.6	0.3
Chromium	DETSC 2301#	0.15	mg/kg	24	200	190	240	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	94	40	56	100	29
Iron	DETSC 2301	25	mg/kg	32000	61000	58000	140000	43000
Lead	DETSC 2301#	0.3	mg/kg	130	140	89	160	30
Magnesium	DETSC 2301*	1	mg/kg	7700	14000	18000	15000	7300
Manganese	DETSC 2301#	20	mg/kg	1000	12000	8200	26000	850
Mercury	DETSC 2325#	0.05	mg/kg	0.56	2.2	0.19	0.09	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	1.2	2.6	5.8	4.6	0.5
Nickel	DETSC 2301#	1	mg/kg	13	11	19	29	38
Silicon	DETSC 2301*	10	mg/kg	95000	70000	72000	59000	170000
Vanadium	DETSC 2301#	0.8	mg/kg	37	410	360	680	36
Zinc	DETSC 2301#	1	mg/kg	710	470	190	180	99
Inorganics								
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	9.9	12.0	11.3	11.3	8.7
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	57	25	2.2	1.4	0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.2	< 0.1	< 0.1	< 0.1	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	3.3	1.5	0.7	< 0.6	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.7	2.4	2.9	2.5	2.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	620	65	250	130	78
Sulphur (free)	DETSC 3049#	0.75	mg/kg	14	1.9	33	6.0	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1667237	1667238	1667501	1667502	1667503
			Sample ID	PRAIRIE_AUK_TP158	PRAIRIE_AUK_TP157	PRAIRIE_AUK_TP120A	PRAIRIE_AUK_TP134	PRAIRIE_AUK_TP134
			Depth	1.30	0.80	1.00	1.00	2.00
			Other ID	3	2	3	3	6
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	17/04/2020	17/04/2020	20/04/2020	20/04/2020	20/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Petroleum Hydrocarbons								
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	3.4	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	27	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	270	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	300	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	0.6	6.8	1.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1.3	6.3	100	15	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	7.2	22	510	69	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	29	610	86	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	29	910	86	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg					
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg	0.47	0.16	0.04	< 0.03	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	0.03	< 0.03	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.55	0.27	0.13	0.09	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.11	0.05	0.05	0.12	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44	0.49	1.4	0.93	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.08	0.04	0.39	0.48	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.2	0.72	8.2	1.5	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	1.1	0.63	12	1.2	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.55	0.54	6.6	0.62	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.57	0.72	4.8	0.47	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.66	0.64	7.3	0.66	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.31	0.26	2.9	0.29	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.39	0.29	5.8	0.52	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.28	0.14	1.9	0.21	< 0.03
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05	0.03	0.53	0.06	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.34	0.15	2.4	0.25	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.1	5.1	54	7.4	< 0.10

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1667237	1667238	1667501	1667502	1667503
			Sample ID	PRAIRIE_AUK_TP158	PRAIRIE_AUK_TP157	PRAIRIE_AUK_TP120A	PRAIRIE_AUK_TP134	PRAIRIE_AUK_TP134
			Depth	1.30	0.80	1.00	1.00	2.00
			Other ID	3	2	3	3	6
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	17/04/2020	17/04/2020	20/04/2020	20/04/2020	20/04/2020
			Sampling Time	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			
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			
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

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1667504	1667505	1667506	1667507
			Sample ID	PRAIRIE_AUK_TP161	PRAIRIE_AUK_TP166	PRAIRIE_AUK_TP166	PRAIRIE_AUK_TP171
			Depth	1.00	0.45	1.20	0.75
			Other ID	3	3	8	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	20/04/2020	20/04/2020	20/04/2020	20/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%		0.001		
Metals							
Aluminium	DETSC 2301*	1	mg/kg	12000	28000	10000	18000
Antimony	DETSC 2301*	1	mg/kg	5.5	5.1	1.2	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	8.1	22	7.6	30
Barium	DETSC 2301#	1.5	mg/kg	260	700	200	610
Beryllium	DETSC 2301#	0.2	mg/kg	1.9	3.4	1.0	3.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8	2.2	0.5	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.9	0.2	3.6
Chromium	DETSC 2301#	0.15	mg/kg	150	140	23	27
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	150	160	26	110
Iron	DETSC 2301	25	mg/kg	53000	91000	33000	63000
Lead	DETSC 2301#	0.3	mg/kg	59	190	23	310
Magnesium	DETSC 2301*	1	mg/kg	11000	21000	3500	5700
Manganese	DETSC 2301#	20	mg/kg	3400	6600	840	1600
Mercury	DETSC 2325#	0.05	mg/kg	0.08	0.28	< 0.05	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	1.8	5.7	< 0.4	4.2
Nickel	DETSC 2301#	1	mg/kg	15	53	40	46
Silicon	DETSC 2301*	10	mg/kg	80000	59000	180000	90000
Vanadium	DETSC 2301#	0.8	mg/kg	160	340	28	120
Zinc	DETSC 2301#	1	mg/kg	110	210	66	1500
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				
pH	DETSC 2008#		pH	11.4	10.0	7.9	8.5
Calorific Value	DETSC 5008	1	MJ/kg				
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5	0.5	< 0.1	0.5
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	%	1.6	2.5	1.8	5.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	100	260	84	120
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	3.9	< 0.75	< 0.75

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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			Lab No	1667504	1667505	1667506	1667507
			Sample ID	PRAIRIE_AUK_TP161	PRAIRIE_AUK_TP166	PRAIRIE_AUK_TP166	PRAIRIE_AUK_TP171
			Depth	1.00	0.45	1.20	0.75
			Other ID	3	3	8	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	20/04/2020	20/04/2020	20/04/2020	20/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Petroleum Hydrocarbons							
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	30	9.9	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	31	11	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	0.7	< 0.5	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	4.4	19	< 0.6	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	29	65	< 1.4	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	33	84	< 10	< 10
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	64	95	< 10	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg				
PAHs							
Naphthalene	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
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.15	0.25	< 0.03	0.09
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.08	< 0.03	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.32	1.2	< 0.03	0.20
Pyrene	DETSC 3303#	0.03	mg/kg	0.33	1.1	< 0.03	0.17
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.19	0.67	< 0.03	0.11
Chrysene	DETSC 3303	0.03	mg/kg	0.19	0.60	< 0.03	0.12
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03	0.89	< 0.03	0.17
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.11	0.37	< 0.03	0.08
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.13	0.71	< 0.03	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09	0.29	< 0.03	0.06
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	0.08	< 0.03	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11	0.38	< 0.03	0.07
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.6	6.6	< 0.10	1.2

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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Contract Title Prairie Site Ground Investigation Works

			Lab No	1667504	1667505	1667506	1667507
			Sample ID	PRAIRIE_AUK_TP161	PRAIRIE_AUK_TP166	PRAIRIE_AUK_TP166	PRAIRIE_AUK_TP171
			Depth	1.00	0.45	1.20	0.75
			Other ID	3	3	8	3
			Sample Type	ES	ES	ES	ES
			Sampling Date	20/04/2020	20/04/2020	20/04/2020	20/04/2020
			Sampling Time	n/s	n/s	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				
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

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1667508	1668118	1668119	1668120	1668121
			Sample ID	PRAIRIE_AUK_TP187	PRAIRIE_AUK_BH110	PRAIRIE_AUK_TP102	PRAIRIE_AUK_TP102	PRAIRIE_AUK_TP103
			Depth	0.70	3.00	1.00	3.00	1.00
			Other ID	3	1	4	11	3
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	20/04/2020	20/04/2020	21/04/2020	21/04/2020	21/04/2020
			Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**					
Asbestos Quantification	DETSC 1102	0.001	%				< 0.001	
Metals								
Aluminium	DETSC 2301*	1	mg/kg	14000	12000	49000	19000	45000
Antimony	DETSC 2301*	1	mg/kg	22	1.4	1.3	1.8	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	46	7.5	11	21	8.1
Barium	DETSC 2301#	1.5	mg/kg	340	210	460	630	440
Beryllium	DETSC 2301#	0.2	mg/kg	3.2	1.1	8.9	2.0	5.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.1	0.6	1.8	2.4	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	24	0.1	0.1	0.5	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	19	28	30	29	82
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	530	27	22	36	17
Iron	DETSC 2301	25	mg/kg	110000	31000	19000	36000	26000
Lead	DETSC 2301#	0.3	mg/kg	1800	24	20	98	14
Magnesium	DETSC 2301*	1	mg/kg	5200	9400	28000	7400	25000
Manganese	DETSC 2301#	20	mg/kg	4200	570	6700	1100	6200
Mercury	DETSC 2325#	0.05	mg/kg	0.13	< 0.05	0.06	0.08	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	6.4	0.7	0.6	0.7	0.6
Nickel	DETSC 2301#	1	mg/kg	55	37	7.2	25	11
Silicon	DETSC 2301*	10	mg/kg	96000	170000	72000	160000	68000
Vanadium	DETSC 2301#	0.8	mg/kg	81	31	100	65	110
Zinc	DETSC 2301#	1	mg/kg	3800	91	84	300	43
Inorganics								
Loss on Ignition at 440oC	DETSC 2003#	0.01	%					
pH	DETSC 2008#		pH	8.8	7.7	10.1	8.5	9.2
Calorific Value	DETSC 5008	1	MJ/kg					
Cyanide, Total	DETSC 2130#	0.1	mg/kg	11	< 0.1	0.2	0.2	0.2
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	0.7	< 0.6
Organic matter	DETSC 2002#	0.1	%	14	3.3	1.4	3.3	3.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	74	350	580	220	680
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	< 0.75	< 0.75	2.2	110

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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	Lab No	1667508	1668118	1668119	1668120	1668121
	Sample ID	PRAIRIE_AUK_TP187	PRAIRIE_AUK_BH110	PRAIRIE_AUK_TP102	PRAIRIE_AUK_TP102	PRAIRIE_AUK_TP103
	Depth	0.70	3.00	1.00	3.00	1.00
	Other ID	3	1	4	11	3
	Sample Type	ES	ES	ES	ES	ES
	Sampling Date	20/04/2020	20/04/2020	21/04/2020	21/04/2020	21/04/2020
	Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	11	3.1
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	< 1.2	< 1.2	29	13
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	33	14
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	< 3.4	< 3.4	29	17
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	100	47
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	1.8	0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	< 0.5	< 0.5	13	8.2
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	< 0.6	< 0.6	16	30
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	< 1.4	< 1.4	5.9	97
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	36	140
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	< 10	< 10	140	180
EPH (C10-C40)	DETSC 3311#	10	mg/kg					
PAHs								
Naphthalene	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	0.10
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	0.12
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	0.13
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.06	< 0.03	< 0.03	0.11	2.6
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	0.05	< 0.03	< 0.03	0.81
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.29	< 0.03	0.06	0.16	36
Pyrene	DETSC 3303#	0.03	mg/kg	0.28	< 0.03	0.06	0.13	29
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.15	0.06	0.04	0.05	15
Chrysene	DETSC 3303	0.03	mg/kg	0.16	< 0.03	0.05	0.05	11
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.24	< 0.03	0.07	< 0.03	14
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.10	< 0.03	< 0.03	< 0.03	7.1
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.18	< 0.03	< 0.03	< 0.03	11
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09	< 0.03	0.04	< 0.03	4.1
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	< 0.03	< 0.03	< 0.03	1.2
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11	< 0.03	0.04	< 0.03	5.0
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.7	0.11	0.36	0.49	140

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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Contract Title Prairie Site Ground Investigation Works

			Lab No	1667508	1668118	1668119	1668120	1668121
			Sample ID	PRAIRIE_AUK_TP187	PRAIRIE_AUK_BH110	PRAIRIE_AUK_TP102	PRAIRIE_AUK_TP102	PRAIRIE_AUK_TP103
			Depth	0.70	3.00	1.00	3.00	1.00
			Other ID	3	1	4	11	3
			Sample Type	ES	ES	ES	ES	ES
			Sampling Date	20/04/2020	20/04/2020	21/04/2020	21/04/2020	21/04/2020
			Sampling Time	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		
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		
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	0.5

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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				Lab No	1668122	1668123	1668124	1668125	1668126
					PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_	PRAIRIE_AUK_
				Sample ID	TP109	TP110	TP110	TP111	TP112
				Depth	1.00	1.00	2.00	1.50	1.50
				Other ID	3	3	7	4	4
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	21/04/2020	21/04/2020	21/04/2020	22/04/2020	22/04/2020
				Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**						
Asbestos Quantification	DETSC 1102	0.001	%					0.002	
Metals									
Aluminium	DETSC 2301*	1	mg/kg	33000	31000	18000	18000	14000	
Antimony	DETSC 2301*	1	mg/kg	2.1	1.8	2.9	8.9	4.5	
Arsenic	DETSC 2301#	0.2	mg/kg	11	6.8	21	48	19	
Barium	DETSC 2301#	1.5	mg/kg	350	490	380	600	540	
Beryllium	DETSC 2301#	0.2	mg/kg	4.4	3.6	1.8	1.8	1.8	
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	6.7	3.3	1.6	1.4	1.0	
Cadmium	DETSC 2301#	0.1	mg/kg	0.2	0.2	0.4	0.9	0.9	
Chromium	DETSC 2301#	0.15	mg/kg	110	72	78	390	210	
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
Copper	DETSC 2301#	0.2	mg/kg	71	110	60	76	68	
Iron	DETSC 2301	25	mg/kg	35000	31000	60000	99000	65000	
Lead	DETSC 2301#	0.3	mg/kg	33	31	94	120	60	
Magnesium	DETSC 2301*	1	mg/kg	21000	24000	9500	29000	12000	
Manganese	DETSC 2301#	20	mg/kg	8200	5100	1900	9100	4900	
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05	0.06	0.23	0.36	< 0.05	
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7	1.2	1.8	3.1	5.4	
Nickel	DETSC 2301#	1	mg/kg	9.3	9.8	40	32	31	
Silicon	DETSC 2301*	10	mg/kg	72000	68000	16000	67000	79000	
Vanadium	DETSC 2301#	0.8	mg/kg	300	180	210	1100	690	
Zinc	DETSC 2301#	1	mg/kg	68	140	260	290	580	
Inorganics									
Loss on Ignition at 440oC	DETSC 2003#	0.01	%						
pH	DETSC 2008#		pH	10.2	11.2	10.4	11.6	11.3	
Calorific Value	DETSC 5008	1	MJ/kg						
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2	0.1	< 0.1	0.5	< 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	%	1.1	2.3	2.7	2.7	2.0	
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	400	260	230	87	140	
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	57	< 0.75	< 0.75	< 0.75	

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
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	Lab No	1668122	1668123	1668124	1668125	1668126
	Sample ID	PRAIRIE_AUK_TP109	PRAIRIE_AUK_TP110	PRAIRIE_AUK_TP110	PRAIRIE_AUK_TP111	PRAIRIE_AUK_TP112
	Depth	1.00	1.00	2.00	1.50	1.50
	Other ID	3	3	7	4	4
	Sample Type	ES	ES	ES	ES	ES
	Sampling Date	21/04/2020	21/04/2020	21/04/2020	22/04/2020	22/04/2020
	Sampling Time	n/s	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	< 1.5	< 1.5	< 1.5	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	2.2	< 1.2	< 1.2	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	4.4	< 1.5	< 1.5	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	35	< 3.4	< 3.4	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	43	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	< 0.9	< 0.9	< 0.9	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5	1.5	< 0.5	0.8	0.6
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6	8.8	< 0.6	5.2	4.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4	73	< 1.4	18	11
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10	84	< 10	24	16
TPH Ali/Aro Total C5-C35	DETSC 3072*	10	mg/kg	< 10	130	< 10	24	16
EPH (C10-C40)	DETSC 3311#	10	mg/kg					
PAHs								
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03	0.07	< 0.03	0.15	0.07
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03	0.06	< 0.03	0.31	0.10
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	1.4	< 0.03	0.13	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03	0.78	< 0.03	0.49	0.09
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.14	3.2	0.12	3.9	1.7
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03	3.1	< 0.03	1.3	0.35
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.29	36	0.52	8.6	3.5
Pyrene	DETSC 3303#	0.03	mg/kg	0.25	37	0.41	6.9	2.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.17	20	0.22	4.2	1.3
Chrysene	DETSC 3303	0.03	mg/kg	0.15	12	0.15	2.6	0.99
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.23	18	0.17	3.6	1.4
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.08	5.6	0.09	1.7	0.61
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.11	9.4	0.12	2.7	0.86
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.08	3.1	0.06	1.2	0.43
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03	1.1	< 0.03	0.25	0.11
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.10	3.2	0.06	1.2	0.51
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.6	150	1.9	39	14

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

				Lab No	1668122	1668123	1668124	1668125	1668126
				Sample ID	PRAIRIE_AUK_TP109	PRAIRIE_AUK_TP110	PRAIRIE_AUK_TP110	PRAIRIE_AUK_TP111	PRAIRIE_AUK_TP112
				Depth	1.00	1.00	2.00	1.50	1.50
				Other ID	3	3	7	4	4
				Sample Type	ES	ES	ES	ES	ES
				Sampling Date	21/04/2020	21/04/2020	21/04/2020	22/04/2020	22/04/2020
				Sampling Time	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
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
PCB 7 Total	DETSC 3401#	0.01	mg/kg						0.03
Phenols									
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	0.5	0.6	0.4	0.4	< 0.3	

Summary of Chemical Analysis
Soil Samples

Our Ref Combined 4251 Prairie
Client Ref 4251
Contract Title Prairie Site Ground Investigation Works

			Lab No	1668127	1668128	1668129	1668130
			Sample ID	PRAIRIE_AUK_TP119	PRAIRIE_AUK_TP119	PRAIRIE_AUK_TP133	PRAIRIE_AUK_TP152
			Depth	1.50	2.50	0.50	2.00
			Other ID	3	7	2	6
			Sample Type	ES	ES	ES	ES
			Sampling Date	22/04/2020	22/04/2020	22/04/2020	22/04/2020
			Sampling Time	n/s	n/s	n/s	n/s
Test	**Method**	**LOD**	**Units**				
Asbestos Quantification	DETSC 1102	0.001	%				0.002
Metals							
Aluminium	DETSC 2301*	1	mg/kg	37000	14000	21000	15000
Antimony	DETSC 2301*	1	mg/kg	2.5	1.5	6.5	5.0
Arsenic	DETSC 2301#	0.2	mg/kg	11	8.5	35	19
Barium	DETSC 2301#	1.5	mg/kg	380	180	390	230
Beryllium	DETSC 2301#	0.2	mg/kg	4.0	1.1	2.4	1.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8	0.5	1.2	1.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.3	0.2	0.8	1.7
Chromium	DETSC 2301#	0.15	mg/kg	140	33	150	160
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0	< 1.0	< 1.0	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	35	31	330	64
Iron	DETSC 2301	25	mg/kg	38000	38000	120000	67000
Lead	DETSC 2301#	0.3	mg/kg	29	28	110	200
Magnesium	DETSC 2301*	1	mg/kg	26000	7300	15000	18000
Manganese	DETSC 2301#	20	mg/kg	6400	660	4800	3300
Mercury	DETSC 2325#	0.05	mg/kg	0.08	< 0.05	0.12	0.30
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8	0.4	3.2	1.9
Nickel	DETSC 2301#	1	mg/kg	11	39	56	34
Silicon	DETSC 2301*	10	mg/kg	58000	160000	94000	120000
Vanadium	DETSC 2301#	0.8	mg/kg	430	40	350	320
Zinc	DETSC 2301#	1	mg/kg	82	96	380	360
Inorganics							
Loss on Ignition at 440oC	DETSC 2003#	0.01	%				
pH	DETSC 2008#		pH	11.1	8.9	11.3	11.0
Calorific Value	DETSC 5008	1	MJ/kg				
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1	< 0.1	0.4	0.5
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	%	4.4	2.1	2.2	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1100	72	170	1700
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75	< 0.75	8.9	< 0.75