

# GRANGETOWN PRAIRIE AREA, FORMER STEELWORKS, REDCAR

Phase II Environmental Site Assessment - Addendum

South Tees Development Corporation

REPORT NO. 10035117-AUK-XX-XX-RP-ZZ-0117-01-Prairie\_ESA\_Addendum

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#### **VERSION CONTROL**

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#### 1 Introduction

This report forms an addendum to Arcadis report reference 10035117-AUK-XX-XX-RP-ZZ-0062-01-Prairie\_ESA Grangetown Prairie Area, Former Steelworks, Redcar Phase 2 Environmental Site Assessment [Arcadis 2020a]. It contains additional site data not available at the time of issue of the above report due to restrictions pertaining to Covid-19 and should be read in conjunction with Arcadis 2020a. In addition to Arcadis 2020a, a Remediation Options Appraisal and Strategy report [Arcadis 2020b] has been completed for the site (10035117-AUK-XX-XX-RP-ZZ-0066-01-Prairie ROA and Strategy). This report was written based on the findings of Arcadis 2020a.

The Grangetown Prairie (Prairie) Area (the site) is a land parcel situated at the Former Redcar Steelworks. The site location is shown on Figure 1 in Appendix A.

The project background, contract details, and aims and objectives are discussed in Arcadis 2020a.

#### 1.1 Report Aims

The overarching aim of the project is to deliver a sustainable ground remediation strategy for the contract site which is compliant with regulatory needs and has their improvement in principle.

The aim of this addendum to the Arcadis 2020a Environmental Site Assessment (ESA) report is to interpret additional data collected for the site in the context of the existing ESA.

#### 1.2 Reliability / Limitations of Information

A complete list of Arcadis Study Limitations is presented in Appendix B.

It should be noted that ground conditions between exploratory holes may vary from those identified during this ground investigation; any design should take this into consideration. It should also be noted that groundwater levels may be subject to diurnal, tidal, seasonal, climatic variations and those recorded in this report are solely dependent on the time the ground investigation was carried out and the weather before and during the investigation.

#### 2 Additional Site Characterisation

In addition to the reports, publicly available records, and AEG ground investigation data reported in Section 2 of Arcadis 2020a, the following additional data has been collected:

- 12no. trial pits excavated by a 20 tonne 360 excavator on behalf of Atkins to facilitate highways design;
- Soil sampling for in-field assessment and submission to Derwentside Environmental Testing Services (DETS), AEG in-house Geotechnical Laboratory and Thomas Research Services (TRS) laboratories for chemical and geotechnical testing;
- Two groundwater sampling events at all newly installed monitoring wells;
- Three ground gas monitoring events at all newly installed monitoring wells;
- Surface water sampling of Holme Beck;
- Aquifer permeability testing and,
- Tidal monitoring.

The data is reported in the following factual documents presented as Appendix C:

- 4251 Prairie Site Ground Investigation Works (Draft Report) [AEG 2020a]
- AEG Contract 4287 Trial Pit Logs and Location Plan (Draft) and laboratory data [AEG 2020b]
- TRS Report BG0E-F/AEG/PSR/TRS/07/20/PR2, dated 31st July 2020 [TRS2020]

#### 2.1 Geology

A summary of the geology identified at the site is given in Arcadis 2020a. The findings of the additional trial pits were in line with previous findings and are briefly summarised below. The geology encountered is provided in on the **draft** trial pit log within Appendix C.

Unit	Minimum Basal Depth (m bgl)	Maximum Basal Depth (m bgl)	Comment
Made Ground	0.60	2.8	Identified in all trial pits, base of Made Ground not proven in two locations due to obstructions. Groundwater was identified within Made Ground in one trial pit.
Tidal Flat Deposits (Secondary A Aquifer)	1.0	3.5	Encountered in 9 trial pits. In line with previous observations generally comprised soft to firm sandy silty clays or sandy clayey silts with varying amounts of plant remains.
Glaciolacustrine Deposits (Unproductive Aquifer)	3.5	-	Recorded in 4 of the trial pits. In line with previous observations the Glaciolacustrine Deposits were noted to be below Tidal Flat Deposits Where identified the deposits were generally described as a soft to firm brown laminated clay often with sand or silt partings along laminations.
Glacial Till (Unproductive Aquifer)	1.0	-	Glacial Till was identified in 4 trial pits. In line with previous observations the Glacial Till was described as a firm to stiff red brown slightly sandy slightly gravelly clay, with gravel composed of mixed lithologies, including sandstone, limestone and rare coal.

The Mercia Mudstone which underlies the site was not encountered by the additional investigation.

#### 2.2 Hydrogeology

A full summary of the hydrogeology at the site is given in Arcadis 2020a. Two additional rounds of groundwater gauging have been undertaken since the 6<sup>th</sup> May 2020 gauging event, which was reported in Arcadis 2020a. The first additional round of monitoring was undertaken on 15<sup>th</sup> June 2020 and the second on 30<sup>th</sup> June 2020. The range in groundwater elevations measured over the three rounds of monitoring are briefly summarised below.

#### 2.2.2 Superficial Deposits

Borehole	Aquifer	6 May 2020 Groundwater Elevation (m AOD)	15 June 2020 Groundwater Elevation (m AOD)	30 June 2020 Groundwater Elevation (m AOD)	Range in Depth to Groundwater (m bgl)
Prairie_AUK_BH101S	GL	6.64	6.87	6.95	1.69 - 2.00
Prairie_AUK_BH101 D	GT	5.64	6.86	7.00	1.78 - 3.00
Prairie_AUK_BH102	Made Ground	7.11	7.38	7.31	0.83 - 1.1
Prairie_AUK_BH103	GL	5.43	5.97	5.76	1.71 - 2.25
Prairie_AUK_BH106	GT	4.77	5.98	5.43	2.73 - 3.94
Prairie_AUK_BH107	GT	7.00	6.95	7.04	3.16 – 3.21
Prairie_AUK_BH108S	GL	6.66	7.72	8.51	0.35 - 2.2

Over the three monitoring visits, groundwater flow direction within the superficial deposits has varied based on interpolation of the groundwater elevations to form groundwater elevation contours, and been towards the east (6<sup>th</sup> May 2020), the northeast (15<sup>th</sup> June 2020) and north-north-east (30<sup>th</sup> June 2020).

#### 2.2.3 Bedrock

Borehole	Aquifer	6 May 2020 Groundwater Elevation (m AOD)	15 June 2020 Groundwater Elevation (m AOD)	30 June 2020 Groundwater Elevation (m AOD)	Range in Depth to Groundwater (m bgl)
Prairie_AUK_BH104	Mercia Mudstone	2.30	4.64	2.49	4.6 - 6.4
Prairie_AUK_BH105*	GT / Mercia Mudstone	3.66	3.77	3.75	4.49 - 4.6
Prairie_AUK_BH108D	Mercia Mudstone	3.86	3.95	4.05	4.81 – 5.00
Prairie_AUK_BH109	Redcar Mudstone Formation and Penarth Group	6.65	6.12	5.37	5.44 – 6.72
Prairie_AUK_BH110	Mercia Mudstone	3.8	3.96	3.93	3.84 - 4.00

\*BH105 is screening a band of slightly clayey very sandy gravel at the base of the Glacial Till and directly above the Mercia Mudstone. Based on the consecutive groundwater elevations measured, the groundwater in BH105 is considered to be in continuity with the bedrock aquifer.

Over the three monitoring visits, the inferred groundwater flow direction within the bedrock has been towards the northeast (6<sup>th</sup> May 2020 and 30<sup>th</sup> June 2020) and towards the north (15<sup>th</sup> June 2020).

It should be noted the inferred flow directions within the bedrock and Superficial Deposits are based on elevations from just a limited number of monitoring wells given the size of the site and may be influenced by local ground conditions. The River Tees is located to the north of the site and runs eastwards towards the North Sea. As such, the groundwater flow direction inferred for groundwater in both the superficial deposits and the bedrock is considered to be in line with regional hydrogeology. An assessment of potential tidal influence is included in Section 2.4.

#### 2.3 Slug Testing

Permeability testing of the aquifer was undertaken by AEG via instantaneous removal of a slug of water and monitoring groundwater recharge in four monitoring well locations in June and July 2020:

- BH101D screening Glacial Till Deposits
- BH103 screening Glaciolacustrine Deposits
- BH108D screening Mercia Mudstone
- BH110 screening Mercia Mudstone

Arcadis has used the raw data collected by AEG to estimate the hydraulic conductivity of the aquifer screened using the Bouwer and Rice 1976 method based on Thiem's equation.

The results of the testing undertaken in BH103 were disregarded as recharge into the well was rapid during the test and not considered to be representative of the cohesive geology screened, Arcadis considerthis is likely an effect of the well-pack. Of the remaining three locations tested, six tests (three slug extractions and three slug insertions) were completed in BH108D and BH110 and four tests (two slug extractions and two slug insertions) were completed in BH101D.

The recovery data was used to estimate the hydraulic conductivity by using the Bouwer and Rice method for a partially penetrating well in an unconfined aquifer for BH101D, BH108D and BH110. The hydraulic conductivity estimated from the tests conducted in BH101D screening the Glacial Till indicated a range in conductivity from 0.0007 to 0.025 m/day. These values are broadly in line with literature values for a clay such as the US EPA 1988 who suggest 0.014m/day, Morris and Johnson 1967, who suggest 0.0002m/day and ConSim 2000, where a range in hydraulic conductivity of 8.6 x 10<sup>-7</sup> to 0.00041 m/day is presented for a clay. As such the permeabilities are considered to be representative of the screened geology.

The hydraulic conductivity estimated from the tests conducted in BH108D and BH110 which screen the Mercia Mudstone were higher, between 0.3 and 0.61 m/day. In comparison to literature values for a mudstone, these permeabilities are more rapid than expected. For example, ConSim 2000 suggests between 8.64 x 10<sup>-9</sup> to 0.00017 m/day for a shale, with similar values reported by Tindal 1998. The literature values presented are at least 3 orders of magnitude below the calculated permeabilities. The higher than expected permeabilities may be the result of drilling induced fracturing of the mudstone in close proximity of the well, where mudstone is described in some sections of the well screen as extremely weak and moderately weak. In addition they may also result from localised secondary porosity (fracture driven flow) which is know to be common in the Mercia Mudstone.

The permeability test data is presented in AEG 2020a. The methodology and calculations are presented in Appendix D.

#### 2.4 Tidal Influence

Groundwater monitoring for potential tidal influence was undertaken by AEG in BH101D (located in the northwest of the site and screening the Glacial Till), BH103 (located in the north-east of the site and screening the Glaciolacustrine Deposits) and BH108D (located in the south-west of the site and screening the Mercia Mudstone) over a period of 36 days between 11<sup>th</sup> May and 16<sup>th</sup> June 2020.

Regular cyclical changes in the groundwater level were recorded in the monitoring wells. However, the peaks and troughs of the cycles were not in line with the approximately 6-hourly fluctuations expected in tidally influenced groundwater. The peaks and troughs were generally 8 hours apart and the change in water level was generally less than 4cm. While the cycles were regular in BH101D and BH103, the cycles observed in BH108D were interrupted by larger variations in groundwater elevation (in the order of 15cm and over a period of several days).

Whilst it is possible that the regular cycles measured during the tidal monitoring reflect changes in the tides, there is insufficient evidence to conclusively state that the groundwater is tidally influenced.

The results from the Tidal Monitoring are presented in AEG 2020a and are presented with amended Y axis in Appendix D.

#### 2.5 Aquifer Salinity

The salinity of the aquifers underlying the site has been calculated using concentrations of chloride (Cl-) measured in the groundwater samples collected assuming all chloride resulted from NaCl. The concentration of sodium chloride, the most abundant salt in marine waters, was calculated using these concentrations and used to determine whether the groundwater underlying the site was likely to be saline, brackish or fresh.

Equation

$$n_{(C\bar{l})} = m_{(C\bar{l})} / M_{(C\bar{l})}$$

Assume all free chloride results from NaCl therefore:  $n_{(NaCl)} = n_{(Cl)}$ 

Therefore  $m_{(NaCl)} = M_{(NaCl)} * n_{(NaCl)}$ 

Where n = no. of moles

m = mass

M = Molecular weight

Molecular weight of sodium (Na) = 22.99

Molecular weight of chloride (CI) = 35.5

The results of the calculation are presented in the table below:

Borehole	Aquifer	Concentration NaCl (mg/l) 5 -6 May 2020	Concentration NaCl (mg/l) 17-19 June 2020	Concentration NaCl (mg/l) 1-2 July 2020
Prairie_AUK_BH101S	GL	396	346.0	329.6
Prairie_AUK_BH101D	GT	379	428.5	346.1
Prairie_AUK_BH102	Made Ground	48	83.9	74.2
Prairie_AUK_BH103	GL	59	152.6	97.2
Prairie_AUK_BH104	Mercia Mudstone	140	62.6	110.4
Prairie_AUK_BH105	GT / Mercia Mudstone	84	164.8	159.9
Prairie_AUK_BH106	GT	49	89.0	97.2
Prairie_AUK_BH107	GT	214	214.2	146.7

Borehole	Aquifer	Concentration NaCl (mg/l) 5 -6 May 2020	Concentration NaCl (mg/l) 17-19 June 2020	Concentration NaCl (mg/l) 1-2 July 2020
Prairie_AUK_BH108S	GL	68	141.7	148.3
Prairie_AUK_BH108D	Mercia Mudstone	58	329.6	362.5
Prairie_AUK_BH109	Redcar Mudstone Formation and Penarth Group	140	2797.8	890.2
Prairie_AUK_BH110	Mercia Mudstone	134	1068.3	1235.9

Freshwater: <500 mg/l

Brackish Water: 500 to 30,000 mg/l Saline Water: 30,000 – 50,000 mg/l

#### 2.6 Hydrology

There are three water courses that run through the site or cross onto the site as part of their route towards the River Tees. They are the Holme Beck, Knitting Wife Beck and the Cross Connector. Both the Knitting Wife Beck and Cross Connector are understood to be culverted for the duration of their route on the site. As such these culverts were not accessible at the time of writing.

The Holme Beck runs along the western boundary of the site, to the east of Eston Road. It enters the Prairie site in the southwestern corner and flows north above ground in an open slab lined channel for approximately 125m before entering a 1.2m diameter concrete culvert for the remainder of the course until it leaves site at the Holme Beck underpass and turns east to join the Cleveland Channel. Surface water from the Holme Beck was sampled at upstream and downstream locations in June 2020 and sent for laboratory analysis.

The location of the sampling points and results of the laboratory analysis of the samples are presented in full in AEG 2020a and are discussed in Section 3.3 of this report.

#### 3 Environmental Site Condition Assessment

This section presents the results of the additional assessment only. This report should be read with Section 3 of Arcadis 2020a for full context.

Additional soil sampling has been undertaken by AEG on behalf of Atkins in the western area of the site. The results of the soil sampling in full are presented in AEG 2020 and briefly discussed in Section 3.1.

Two additional groundwater monitoring visits and one round of surface water monitoring have been undertaken by AEG since the Arcadis 2020a report was issued. The laboratory certificates are presented as part of the AEG factual report in Appendix C. The results of the groundwater monitoring are briefly discussed in section 3.2.

A total of 3 ground gas monitoring visits have been undertaken at the site. The results are presented in full in AEG 2020a and are discussed in Section 3.4.

#### 3.1 Soil

#### 3.1.2 Non-Aqueous Phase Liquid

No non-aqueous phase liquid (NAPL) was identified on soil in the twelve additional trial pits progressed.

#### 3.1.3 Made Ground

#### Asbestos

Asbestos was identified in one soil sample (ATK\_TP\_001\_0060) of the 12No. additional samples analysed from the trial pits progressed by AEG. The asbestos was noted to be small bundles of amosite.

#### Metals and Inorganics

Metals and inorganic compounds were measured at levels within the tested samples which were in line with those identified in Arcadis 2020 with the exception of arsenic in ATK\_TP\_011\_0090 which was noted to be elevated compared to the wider dataset.

#### Polycyclic Aromatic Hydrocarbons and Total Petroleum Hydrocarbons

Concentrations of PAH were measured in 4 of the 5 samples analysed and concentrations of TPH were measured in 3 of the 5 soil samples and analysed. The measured concentrations were in line with Arcadis 2020a and did not indicate hotspots of contamination.

#### 3.2 Groundwater

#### 3.2.2 Non-Aqueous Phase Liquid

No non-aqueous phase liquid (NAPL) was identified on perched water encountered in the additional trial pits progressed.

#### 3.2.3 Groundwater

Six wells are screened across the Superficial Deposits, and one additional well (BH105) is screened across the base of the Superficial Deposits but in continuity with groundwater in the bedrock. A further four wells screen the bedrock and one well is screened across the Made Ground. The results of all three groundwater monitoring visits undertaken on 5<sup>th</sup> to 6<sup>th</sup> May, 17<sup>th</sup> to 19<sup>th</sup> June and 1<sup>st</sup> and 2<sup>nd</sup> July 2020 are discussed in the following sections.

#### Metals and Inorganics

Metals were measured in all groundwater samples; barium, boron, calcium, manganese, sodium, and iron were measured at the highest concentrations. Metals concentrations generally remained within the same order of magnitude in individual wells across the three monitoring visits with the exception of aluminium which was generally lower in the latter two groundwater samples collected. Metals concentrations in the Superficial Deposits and Bedrock were generally noted to be within the same order of magnitude.

Elevated levels of sulphate and chloride were measured in all samples. The pH of the groundwater in wells screened across natural deposits was neutral to slightly basic with the majority of the samples showing a pH<8.5. Groundwater from monitoring well Prairie\_AUK\_BH102 screened across Made Ground measured strongly basic across all three monitoring visits (between pH12 and 13).

Free cyanide was generally measured coincidently with total cyanide with the exception of Prairie\_AUK\_BH103, Prairie\_AUK\_BH104 and Prairie\_AUK\_BH107 where total cyanide only was measured in groundwater samples from at least one visit and free cyanide was less than MDL. Total cyanide was measured above MDL in the following monitoring wells:

- Prairie\_AUK\_BH101S (all visits)
- Prairie\_AUK\_BH101D (all visits)
- Prairie AUK BH103 (all visits)
- Prairie\_AUK\_BH104 (2<sup>nd</sup> visit)
- Prairie AUK BH107 (2<sup>nd</sup> and 3<sup>rd</sup> visit)
- Prairie AUK BH110 (2<sup>nd</sup> and 3<sup>rd</sup> visit)

Free cyanide was measured above MDL in the following groundwater samples:

- Prairie\_AUK\_BH101S (all visits)
- Prairie\_AUK\_BH101D (all visits)
- Prairie\_AUK\_BH103 (1st and 2nd visit)
- Prairie\_AUK\_BH110 (2<sup>nd</sup> and 3<sup>rd</sup> visit)

Concentrations of total cyanide in Prairie\_AUK\_BH101S/D and Prairie\_AUK\_BH110 were generally higher than elsewhere. The highest concentration of free cyanide was measured in Prairie\_AUK\_BH110.

#### **Organics**

Concentrations of TPH were measured in groundwater sampled from Prairie\_AUK\_BH109 on all three monitoring visits with concentrations decreasing over the period. Concentrations of TPH were also measured in the following wells on at least one occasion but at levels an order of magnitude below those measured in Prairie\_AUK\_BH109:

- Prairie AUK BH101S (1st and 3rd visit)
- Prairie AUK BH102 (2<sup>nd</sup> visit)
- Prairie AUK BH104 (1st visit)
- Prairie AUK BH107 (3<sup>rd</sup> visit)
- Prairie\_AUK\_BH108S (3<sup>rd</sup> visit)
- Prairie AUK BH108D (3<sup>rd</sup> visit)
- Prairie\_AUK\_BH109 (all visits)
- Prairie\_AUK\_BH110 (2<sup>nd</sup> visit)

Low levels of PAH were measured in the majority of samples with higher concentrations recorded in Prairie\_AUK\_BH109, levels in this well were noted to decrease across the monitoring period.

#### 3.3 Surface Water

Concentrations of TPH, phenol, cyanide, hexavalent chromium, mercury and SVOC were measured below the laboratory MDL in both surface water samples collected from the site: SW1 (upstream) and SW2 (downstream). With the exception of toluene which was measured at  $1\mu g/I$  (the same as the MDL), no VOC were measured in the surface water samples collected.

Where concentrations of CoC were measured above MDL, concentrations did not vary significantly between the upstream and the downstream sample.

#### 3.4 Ground Gas Assessment

Ground gas monitoring was conducted on three occasions across a range of weather and atmospheric conditions. In all monitoring wells with the exception of PRAIRIE\_AUK\_BH108S groundwater was resting above the top of the well slotted section indicating the data recorded is not representative of the shallow sub

surface ground gas condition, this is expected as the monitoring well was designed to assess groundwater conditions within the superficial and bedrock deposits rather than made ground.

In PRAIRIE\_AUK\_BH108S which is screened across the Glaciolacustrine Deposits methane levels were recorded at 0.1% and 0.5% during the second and first monitoring visits respectively; during the third visit levels were below the detection limit of the instrument. Other locations generally recorded similar methane levels, with lower measurements recorded during the third monitoring visit which was conducted at lower atmospheric pressure.

Hydrogen sulphide and carbon monoxide were recorded on one and two occasions respectively in PRAIRIE\_AUK\_BH108S, and with similar frequency in the other monitoring wells, maximum recorded levels were 1ppm for hydrogen sulphide and 6ppm for carbon monoxide.

Flow rates in PRAIRIE\_AUK\_BH108S were observed to range between 0.0l/hr (visit 3) and -4.4l/hr (visit 1). Across the remaining wells flow rates ranged between 0.4 l/hr and -7.1l/hr with the largest negative flows generally recorded during the first monitoring visit conducted under high pressure atmospheric conditions.

Given the proposed remedial strategy for the site (10035117-AUK-XX-XX-RP-ZZ-0066-01-Prairie ROA and Strategy) comprising the excavation processing and replacement of a significant proportion of the made ground, further monitoring is recommended once this is complete based on the specific requirements of a particular redevelopment.

#### 3.5 Slag Petrology

A total of 6 samples of slag recovered from trial pits were submitted for examination the results are presented in Appendix C and summarised below.

Sample	Depth	AEG Estimated % Slag
Prairie_AUK_TP109	1.0	75 - 100%
Prairie_AUK_TP116	1.0	50 – 75%
Prairie_AUK_TP117	1.0	75 - 100%
Prairie_AUK_TP121	1.8	75 - 100%
Prairie_AUK_TP131	1.5	75 - 100%
Prairie_AUK_TP132	1.0	50 – 75%

- The samples contained mixed slag deposits with blast furnace slag predominating in 3 samples and basic steel slags dominating in the remainder.
- Small amounts of basic refractory materials were noted in 4 slag samples, these materials are particularly susceptible to expansion.
- Samples containing medium or higher proportions of basic steel slag were tested for free calcium and magnesium oxides. Free calcium oxide compositions ranged from 1.5% to 5.2% and free magnesium oxides ranged between 0.3% and 3.3%.
- All samples were subject to 14 day expansion tests and showed expansions between 0.22% and 2.76% with slags high in basic steel slag showing the greater expansion.
- Samples containing medium or higher proportions of basic steel slag were subject to 28 day accelerated expansion tests. The results showed expansion ranging between 0.50 and 3.11%.

• Half the samples tested contained traces of Ettringite indicating expansion has occurred in the past, however this does not mean the expansion is necessarily complete.

#### 4 Generic Quantitative Risk Assessment

The below assessment is a generic risk assessment in line with approach taken in Arcadis 2020a, within which screening criteria are presented.

#### 4.1 Human Health Soil Risk Assessment

Contaminant concentrations in the additional soil samples have been compared with the soil assessment criteria using the following criteria (in order of priority):

- LQM/CIEH Suitable for Use Levels (S4UL) (LQM / CIEH, 2015),
- Department of Environment Food and Rural Affairs (DEFRA) Category 4 Screening Levels (C4SL) (DEFRA, 2012),
- Arcadis derived generic assessment criteria based on CLEA v1.07,
- United States Environmental Protection Agency (U.S. EPA) Regional Screening Levels (RSLs) (USEPA, 2018)

Of the additional soil samples collected concentrations of arsenic were identified above the applicable GAC. The remaining contaminants for which GAC are available were not identified in excess of the applicable GAC. Details of the arsenic contraction in excess are presented in the table below:

Contaminant	Unit	No. Samples Exceeding	GAC Exce	eded	Sample (Geology)	Concentration (mg/kg)
Arsenic	mg/kg	1/5	S4UL	640	ATK_TP_011_0090	970

Contaminants for which no screening criteria were available were reviewed. Most contaminants were recorded below the method detection limit (MDL) in all additional soil samples.

Contaminants measured in soil at concentrations above MDL, for which no screening criteria were available were: total cyanide, sulphate, and sulphur. It is also noted that whilst there is a GAC available for assessing the direct contact pathway for free cyanide, there is not a GAC available that considers the vapour inhalation pathway. As such there is not considered to be an appropriate GAC for free cyanide.

Potential human health risks from these compounds were qualitatively assessed in Arcadis 2020a. Both sulphate and sulphur can be present naturally in soil. Their typically low toxicity is likely to mean these occurrences present a low risk of adverse harm following development, in particular if the ground is covered by buildings, hardstanding or permanent landscaping.

Total cyanide can be assessed using other GAC available for higher toxicity contaminants, such as the one for free cyanide for a conservative estimate of risk. Total cyanide measured in soil sampled from ATK\_TP\_009\_0050 is in excess of the GAC for free cyanide and as such total cyanide requires further consideration. Free cyanide has been identified above the MDL in two of the additional soil samples collected and as such warrants further consideration.

Consideration of concentrations of arsenic, total cyanide and free cyanide will be given in Section 4.4.

#### 4.1.2 Asbestos in Soil

A total of 5No. additional soils samples were screened by polarised light microscopy in accordance with HSG248 for the presence of asbestos (HSE, 2005). In 1No. samples asbestos was detected as bundles of fibres (amosite).

The presence of asbestos fibres is in line with previous findings for the site and is considered further in Arcadis 2020a. Asbestos in shallow soils in areas without buildings or hardstanding has the potential to become airborne and available for inhalation, particularly during construction, posing chronic risks to human health.

#### 4.2 Human Health Groundwater Risk Assessment

#### 4.2.2 Groundwater Risk Assessment

Concentrations of volatile contaminants in 36 groundwater and 2 surface water samples were screened against the inhalation GAC described above (where GAC have been derived).

None of the concentrations of volatile contaminants measured in groundwater were in excess of the inhalation GAC for on-site commercial workers where available. As such, the risk to human health from measured concentrations of CoC in groundwater is not considered to be significant.

Groundwater samples were not analysed for VOC in the latter two groundwater monitoring visits as such there is no data in addition to that included in Arcadis 2020a to consider here.

Groundwater samples were analysed for inorganics. Free cyanide has been detected at concentrations above MDL in the groundwater sampled over the three monitoring visits. Free cyanide can volatilise under certain conditions and form compounds including hydrogen cyanide, as such further consideration of concentrations of free cyanide is warranted.

#### 4.3 Risks to Controlled Waters

#### 4.3.2 Selection of GAC

Concentrations of leachable contaminants from soil leaching tests and groundwater samples have been compared to appropriate Water Quality Standards (WQS).

The WQS chosen are UK Drinking Water Standards (DWS) protective of aquifer water resources, and Environmental Quality Standards (EQS) considered protective of surface waterbody quality. The EQS are for saline waters protective of the Tees Estuary receptor. The WQS are listed in Arcadis 2020a.

#### 4.3.3 Groundwater

Twelve groundwater samples were obtained from the monitoring wells on each of the three sampling visits and two surface water samples were collected from Holme Beck. The samples were analysed for a range of contaminants. The boreholes screen subsurface geology as shown in the table below.

Borehole	Aquifer
Prairie_AUK_BH101S	Glaciolacustrine Deposits (GL)
Prairie_AUK_BH101D	Glacial Till (GT)
Prairie_AUK_BH102	Made Ground
Prairie_AUK_BH103	GL
Prairie_AUK_BH105*	GT / Mercia Mudstone
Prairie_AUK_BH106	GT
Prairie_AUK_BH107	GT
Prairie_AUK_BH108S	GL
Prairie_AUK_BH104	Mercia Mudstone
Prairie_AUK_BH108D	Mercia Mudstone

Borehole	Aquifer
Prairie_AUK_BH109	Redcar Mudstone Formation and Penarth Group
Prairie_AUK_BH110	Mercia Mudstone

<sup>\*</sup>BH105 is screening a band of slightly clayey very sandy gravel at the base of the Glacial Till and directly above the Mercia Mudstone. Based on the consecutive groundwater elevations measured, the groundwater in BH105 is considered to be in continuity with the bedrock aquifer.

# Contaminant concentrations were compared to the WQS and concentrations in excess of the WQS are summarised below.

Contaminant	Unit	No. Samples Exceeding	WQS Exce	eded	Monitoring Point
Aluminium	μg/l	4/36	DWS	200	PRAIRIE_AUK_BH101S (1st visit)  PRAIRIE_AUK_BH105 (2nd visit)  PRAIRIE_AUK_BH106 (1st visit)  PRAIRIE_AUK_BH109 (1st visit)
Barium**	μg/l	2/24	DWS	700	PRAIRIE_AUK_BH102 (1st and 2nd visit)
Cadmium	μg/l	9/36	EQS	0.2	PRAIRIE_AUK_BH110 (2 <sup>nd</sup> visit)
Chromium (total)	µg/l	3/36	DWS	50	PRAIRIE_AUK_BH106 (1st visit) PRAIRIE_AUK_BH109 (1st visit)
Copper	µg/l	3/36	EQS	3.76	PRAIRIE_AUK_BH103 (1st visit) PRAIRIE_AUK_BH104 (2nd visit) PRAIRIE_AUK_BH110 (2nd visit)
Manganese**	µg/l	22/24	DWS	50	PRAIRIE_AUK_BH101S (1st and 2nd visits) PRAIRIE_AUK_BH101D (1st and 2nd visits) PRAIRIE_AUK_BH103 (1st and 2nd visits) PRAIRIE_AUK_BH104 (1st and 2nd visits) PRAIRIE_AUK_BH105 (1st and 2nd visits) PRAIRIE_AUK_BH106 (1st and 2nd visits) PRAIRIE_AUK_BH107 (1st visit) PRAIRIE_AUK_BH108S (1st and 2nd visits) PRAIRIE_AUK_BH108D (1st and 2nd visits) PRAIRIE_AUK_BH108D (1st and 2nd visits) PRAIRIE_AUK_BH109 (1st visit) PRAIRIE_AUK_BH109 (1st visit)
Mercury	μg/l	7/36	EQS	0.07	PRAIRIE_AUK_BH102 (3 <sup>rd</sup> visit)  PRAIRIE_AUK_BH103 (1 <sup>st</sup> and 3 <sup>rd</sup> visit)  PRAIRIE_AUK_BH104 (1 <sup>st</sup> visit)

Contaminant	Unit	No. Samples Exceeding	WQS Exce	eded	Monitoring Point
					PRAIRIE_AUK_BH106 (1st and 3rd visit) PRAIRIE_AUK_BH109 (1st visit)
Zinc	µg/I	13/36	EQS	7.9	PRAIRIE_AUK_BH101S (3rd visit)  PRAIRIE_AUK_BH101D (3rd visit)  PRAIRIE_AUK_BH102 (1st visit)  PRAIRIE_AUK_BH104 (1st and 3rd visit)  PRAIRIE_AUK_BH105 (3rd visit)  PRAIRIE_AUK_BH107 (3rd visit)  PRAIRIE_AUK_BH108S (3rd visit)  PRAIRIE_AUK_BH109 (3rd visit)  PRAIRIE_AUK_BH109 (3rd visit)  PRAIRIE_AUK_BH110 (1st and 3rd visit)
Total Cyanide	µg/l	15/36	EQS	1	PRAIRIE_AUK_BH101S (all visits)  PRAIRIE_AUK_BH101D (all visits)  PRAIRIE_AUK_BH103 (all visits)  PRAIRIE_AUK_BH104 (2 <sup>nd</sup> visit)  PRAIRIE_AUK_BH107 (2 <sup>nd</sup> and 3 <sup>rd</sup> visit)  PRAIRIE_AUK_BH110 (2 <sup>nd</sup> and 3 <sup>rd</sup> visit)
		11/36	PRAIF PRAIF  DWS 50 PRAIF  PRAIF		PRAIRIE_AUK_BH101S (2 <sup>nd</sup> and 3 <sup>rd</sup> visits) PRAIRIE_AUK_BH101D (2 <sup>nd</sup> and 3 <sup>rd</sup> visits) PRAIRIE_AUK_BH103 (all visits) PRAIRIE_AUK_BH107 (2 <sup>nd</sup> and 3 <sup>rd</sup> visit) PRAIRIE_AUK_BH110 (2 <sup>nd</sup> and 3 <sup>rd</sup> visit)
Ammoniacal Nitrogen*	μg/l	13/36	DWS	0.5	PRAIRIE_AUK_BH101S (all visits)  PRAIRIE_AUK_BH101D (all visits)  PRAIRIE_AUK_BH102 (all visits)  PRAIRIE_AUK_BH106 (all visits)  PRAIRIE_AUK_BH109 (2 <sup>nd</sup> visit)
Aromatic C5-C7	μg/l	1/36	EQS DWS	8	PRAIRIE_AUK_BH109 (1st visit)
Xylenes**	μg/l	1/12	EQS	30	PRAIRIE_AUK_BH109 (1st visit)
TPH	µg/l	9/36	DWS	10	PRAIRIE_AUK_BH101S (1st and 3rd visit) PRAIRIE_AUK_BH104 (1st visit) PRAIRIE_AUK_BH107 (3rd visit) PRAIRIE_AUK_BH108S (3rd visit)

Contaminant	Unit	No. Samples Exceeding	WQS Exce	eeded	Monitoring Point
					PRAIRIE_AUK_BH108D (3 <sup>rd</sup> visit)
					PRAIRIE_AUK_BH109 (all visits)
					PRAIRIE_AUK_BH107 (3 <sup>rd</sup> visit)
		5/36	EQS	50	PRAIRIE_AUK_BH108S (3 <sup>rd</sup> visit)
					PRAIRIE_AUK_BH109 (all visits)
					PRAIRIE_AUK_BH101S (3 <sup>rd</sup> visit)
Naphthalene	ua/l	6/36	EQS	2	PRAIRIE_AUK_BH102 (all visits)
марнинанене	µg/l	0/30	DWS	2	PRAIRIE_AUK_BH104 (1st visit)
					PRAIRIE_AUK_BH109 (1st and 2nd visit)
	μg/l				PRAIRIE_AUK_BH101S (1st visit)
					PRAIRIE_AUK_BH101D (1st visit)
Anthracene		9/36	EQS	0.1	PRAIRIE_AUK_BH102 (all visits)
					PRAIRIE_AUK_BH104 (1st visit)
					PRAIRIE_AUK_BH109 (all visits)
					PRAIRIE_AUK_BH101S (all visits)
					PRAIRIE_AUK_BH101D (all visits)
					PRAIRIE_AUK_BH102 (all visits)
					PRAIRIE_AUK_BH103 (all visits)
					PRAIRIE_AUK_BH104 (1st and 2nd visit)
Fluoranthene	μg/l	33/36	EQS	0.0063	PRAIRIE_AUK_BH105 (all visits)
Tuorantilene	рул	33/30	LQU	0.0003	PRAIRIE_AUK_BH106 (all visits)
					PRAIRIE_AUK_BH107 (all visits)
					PRAIRIE_AUK_BH108S (all visits)
					PRAIRIE_AUK_BH108D (1st and 3rd visit)
					PRAIRIE_AUK_BH109 (all visits)
					PRAIRIE_AUK_BH110 (1st and 3rd visits)
					PRAIRIE_AUK_BH101S (1st visit)
					PRAIRIE_AUK_BH101D (1st and 3rd visit)
					PRAIRIE_AUK_BH102 (1st visit)
Benzo(b)fluoranthene	μg/l	12/36	DWS	0.025	PRAIRIE_AUK_BH103 (1st and 3rd visit)
23.120(3/11401411110110	M9/1	12,00	2.10	0.020	PRAIRIE_AUK_BH104 (1st visit)
					PRAIRIE_AUK_BH106 (1st visit)
					PRAIRIE_AUK_BH108S (2 <sup>nd</sup> visit)
					PRAIRIE_AUK_BH109 (all visits)

Contaminant	Unit	No. Samples Exceeding	WQS Exce	eded	Monitoring Point
		14/36	EQS	0.017	PRAIRIE_AUK_BH101S (1st visit)  PRAIRIE_AUK_BH101D (1st and 3rd visit)  PRAIRIE_AUK_BH102 (1st visit)  PRAIRIE_AUK_BH103 (all visits)  PRAIRIE_AUK_BH104 (1st visit)  PRAIRIE_AUK_BH106 (1st visit)  PRAIRIE_AUK_BH108S (2nd visit)  PRAIRIE_AUK_BH108D (1st visit)  PRAIRIE_AUK_BH108D (1st visit)  PRAIRIE_AUK_BH108D (1st visit)
		5/36	DWS	0.025	PRAIRIE_AUK_BH103 (1st visit) PRAIRIE_AUK_BH104 (1st visit) PRAIRIE_AUK_BH109 (1st and 2nd visit)
Benzo(k)fluoranthene	µg/l	9/36	EQS 0.017 PF		PRAIRIE_AUK_BH101S (1st and 3rd visits)  PRAIRIE_AUK_BH103 (1st and 3rd visits)  PRAIRIE_AUK_BH104 (1st visit)  PRAIRIE_AUK_BH106 (1st visit)  PRAIRIE_AUK_BH108S (2nd visit)  PRAIRIE_AUK_BH109 (1st and 2nd visit)
Benzo(a)pyrene	µg/l	12/36	DWS	0.01	PRAIRIE_AUK_BH101S (1st visit)  PRAIRIE_AUK_BH101D (1st and 3rd visits)  PRAIRIE_AUK_BH102 (1st visit)  PRAIRIE_AUK_BH103 (1st and 2rd visits)  PRAIRIE_AUK_BH104 (1st visit)  PRAIRIE_AUK_BH106 (1st visit)  PRAIRIE_AUK_BH108S (2rd visit)  PRAIRIE_AUK_BH109 (all visits)
		9/36	EQS	0.027	PRAIRIE_AUK_BH101S (1st visit)  PRAIRIE_AUK_BH103 (1st and 2nd visits)  PRAIRIE_AUK_BH104 (1st visit)  PRAIRIE_AUK_BH106 (1st visit)  PRAIRIE_AUK_BH108S (2nd visit)  PRAIRIE_AUK_BH109 (all visits)
Indeno(1,2,3-c,d)pyrene	μg/l	8/36	DWS	0.025	PRAIRIE_AUK_BH101S (1st visit) PRAIRIE_AUK_BH101D (1st visit)

Contaminant	Unit	No. Samples Exceeding	WQS Exceeded		Monitoring Point
					PRAIRIE_AUK_BH103 (1st and 3rd visits)
					PRAIRIE_AUK_BH104 (1st visit)
					PRAIRIE_AUK_BH106 (1st visit)
					PRAIRIE_AUK_BH109 (1st and 2nd visit)
		9/36	DWS	0.025	PRAIRIE_AUK_BH101S (1st visit)  PRAIRIE_AUK_BH101D (1st visit)  PRAIRIE_AUK_BH103 (1st and 3rd visits)  PRAIRIE_AUK_BH104 (1st visit)  PRAIRIE_AUK_BH106 (1st visit)  PRAIRIE_AUK_BH108D (1st visit)  PRAIRIE_AUK_BH109 (1st and 2rd visit)
Benzo(g,h,i)perylene	µg/l	15/36	EQS	0.00082	PRAIRIE_AUK_BH101S (1st visit)  PRAIRIE_AUK_BH101D (1st and 3rd visits)  PRAIRIE_AUK_BH102 (1st visit)  PRAIRIE_AUK_BH103 (all visits)  PRAIRIE_AUK_BH104 (1st visit)  PRAIRIE_AUK_BH106 (1st and 3rd visits)  PRAIRIE_AUK_BH108S (2nd visit)  PRAIRIE_AUK_BH108D (1st visit)  PRAIRIE_AUK_BH108D (1st visit)  PRAIRIE_AUK_BH108D (1st visit)
1,2-dichloroethane**	μg/l	1/14	DWS	3	PRAIRIE_AUK_BH109 (1st visit)

<sup>\*</sup> DWS for Ammoniacal Nitrogen is for Ammonium as NH<sub>4</sub>.

#### 4.3.4 Qualitative Risk Assessment for Substances in Groundwater without WQS

For several contaminants including some metals including beryllium, WQS are not readily available for comparison. Concentrations of beryllium were not measured above the laboratory MDL in any of the groundwater samples, where tested. As such, this compound is not considered to pose a significant risk to identified water resource receptors.

Analysis of groundwater for VOCs was undertaken on the first monitoring visit (May 2020) only so discussion of VOCs is presented in Arcadis 2020a and no additional data has been collected since this report was issued.

Five of the compounds: calcium, magnesium, sulphate, sulphur and chloride, are present naturally in groundwater. Considering the site setting (close to saline coastal environment) these compounds are not considered to pose a significant risk to water resources and will not be assessed further.

Given a number of PAHs do not have readily available WQS, assessment of the risk to water resources will be made using PAHs in groundwater that have available WQS. This is considered to be sufficiently protective of water resources.

<sup>\*\*</sup> Not tested for on all monitoring visits

#### 4.3.5 Surface Water

A comparison of those compounds measured above MDL in one or both of the surface water samples is presented below:

Compound	Concentration upstream - SW1 (μg/l)	Concentration downstream – SW2 (µg/I)	Difference (μg/l)	Comparison to EQS where available (EQS saltwater µg/l)
Aluminium	15	35	+20	-
Antimony	0.33	0.42	+0.09	-
Arsenic	4.4	4.6	+0.2	Not in excess (25)
Barium	42	41	-1	-
Boron	260	270	+10	Not in excess (7000)
Total chromium	5.2	2.4	-2.8	-
Copper	2	2	0	Not in excess (3.76)
Iron	10	25	+15	Not in excess (1000)
Lead	0.13	<0.09	-0.04	Not in excess (1.3)
Magnesium	63000	65000	+2000	-
Manganese	70	52	-18	-
Molybdenum	1.9	2	+0.1	-
Nickel	1.9	3.6	+1.7	Not in excess (8.6)
Vanadium	1.5	2.5	+1	Not in excess (100)
Zinc	4.1	3.6	-0.5	Not in excess (7.9)
рН	7.8 pH units	8 pH units	+ 0.2 pH units	Not in excess (6 – 8.5)
Ammoniacal Nitrogen	0.11	<0.015	-0.095	-
Sulphate	680000	760000	+80000	-
Acenaphthylene	<0.01	0.02	+0.02	-
Acenaphthene	0.02	0.03	+0.01	-
Fluorine	0.01	<0.01	-0.01	-
Phenanthrene	0.04	<0.01	-0.03	-
Fluoranthene	0.05	0.02	-0.03	In excess (0.0063)
Pyrene	0.04	0.02	-0.02	-
Benzo(a)anthracene	0.01	<0.01	-0.01	-
Chrysene	0.01	<0.01	-0.01	-
Benzo(b)fluoranthene	0.01	<0.01	-0.01	Not in excess (0.017)
Benzo(g,h,i)perylene	0.01	<0.01	-0.01	In excess (0.00082)
Toluene	1	1	0	Not in excess (74)

When compared to EQS (estuaries and coastal), concentrations measured in both the upstream and downstream samples were below the EQS with the exception of fluoranthene and benzo(g,h,i)pyrene. Fluoranthene was measured in SW1 at concentrations of 0.05  $\mu$ g/l and concentrations were 0.02  $\mu$ g/l in SW2 when the surface water left the Prairie site. In both samples taken, the concentrations are marginally above the laboratory MDL (in the same order of magnitude). Concentrations of benzo(g,h,i)perylene were measured at the same concentration as the MDL (0.01  $\mu$ g/l) in the upstream sample and below the MDL in the downstream sample. Whilst these concentrations are above the EQS, it is noted that concentrations have not increased as the Holme Beck travels through the site.

The surface water monitoring indicates that the quality of the surface water has not altered significantly as it passes through the site.

#### 4.4 Discussion

Comparison of concentrations of CoC measured in the additional soil samples collected as part of the addendum ground investigation with GAC protective of human health indicate further consideration of concentrations of arsenic, total cyanide and free cyanide is warranted. Arsenic and total cyanide pose a potential risk to human health via the direct contact route and the risk via this pathway has been considered in the Remediation Options Appraisal (Arcadis 2020b) which suggests a clean cover system to break the pathway. Concentrations of free cyanide remain a potential risk via the vapour inhalation pathway and require further assessment. The Arcadis Detailed Conceptual Site Model and Risk Assessment report, currently *in press*, will further assess the risk to human health from concentrations of free cyanide measured in soil from chronic health effects.

The risk to human health from concentrations of CoC in groundwater from chronic exposure has been assessed as part of this report. Concentrations of CoC have not been identified in excess of the GAC where available, in any of the groundwater samples collected from the site. An appropriate GAC for free cyanide in groundwater has not been identified and as such the risk to human health from concentrations of free cyanide in groundwater cannot be ruled out. The Arcadis Detailed Conceptual Site Model and Risk Assessment report, currently *in press*, will further assess the risk to human health from concentrations of free cyanide measured in groundwater from chronic health effects.

Concentrations of multiple CoC in groundwater have been measured in excess of the WQS. In light of the additional data collected and presented in this report, refinement of the existing CSM for the site is considered warranted. A detailed CSM review using the additional information collected here will be undertaken as part of the Arcadis Detailed Conceptual Site Model and Risk Assessment report, currently *in press*.

### 5 Summary

This addendum report presents additional data collected for the site after the issue of Arcadis 2020a. A GQRA has been undertaken for the additional data collected and the findings are in line with those of Arcadis 2020a. Concentrations of arsenic have been measured above the appropriate GAC protective of human health and concentrations of total cyanide have been identified as requiring further consideration. Arsenic and total cyanide poses a potential risk via the direct contact pathway and as such is addressed as part of the Arcadis Remedial Options Appraisal for the site (Arcadis 2020b). In line with Arcadis 2020a, the risk to human health from chronic health effects from concentrations of volatile compounds such as free cyanide will require further assessment, this is being undertaken as part of a detailed conceptual model review and risk assessment, currently *in press*.

In line with previous findings, a number of concentrations of CoC measured in groundwater have been identified above the WQS. A detailed conceptual site model review and risk assessment is being undertaken to further characterise pollutant linkages at the site using site-specific information. Further assessment will be undertaken as required, as part of that report.

The finding of this addendum report does not alter the conclusions of Arcadis' Remedial Options Appraisal and Strategy report (Arcadis 2020b). Other recommendations are in line with those given in Arcadis 2020a.

### **APPENDIX A**

### **Figures**



#### **APPENDIX B**

#### **Study Limitations**

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

- This report has been prepared by Arcadis UK Ltd (Arcadis), with all reasonable skill, care and diligence within the terms of the Appointment and with the resources and manpower agreed with STDC (the 'Client'). Arcadis does not accept responsibility for any matters outside the agreed scope.
- 2. This report has been prepared for the sole benefit of the Client unless agreed otherwise in writing.
- 3. Unless stated otherwise, no consultations with authorities or funders or other interested third parties have been carried out. Arcadis are unable to give categorical assurance that the findings will be accepted by these third parties as such bodies may have unpublished, more stringent objectives. Further work may be required by these parties.
- 4. All work carried out in preparing this report has used, and is based on, Arcadis' professional knowledge and understanding of current relevant legislation. Changes in legislation or regulatory guidance may cause the opinion or advice contained in this report to become inappropriate or incorrect. In giving opinions and advice, pending changes in legislation, of which Arcadis is aware, have been considered. Following delivery of the report, Arcadis have no obligation to advise the Client or any other party of such changes or their repercussions.
- This report is only valid when used in its entirety.
   Any information or advice included in the report should not be relied upon until considered in the context of the whole report.
- Whilst this report and the opinions made are correct to the best of Arcadis' belief, Arcadis cannot guarantee the accuracy or completeness of any information provided by third parties.

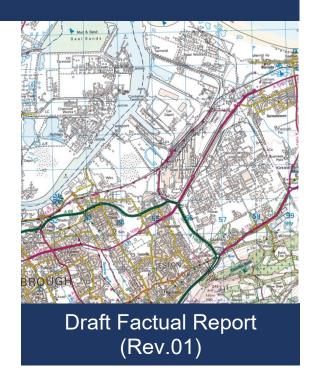
- This report has been prepared based on the information reasonably available during the project programme. All information relevant to the scope may not have been received.
- 8. This report refers, within the limitations stated, to the condition of the Site at the time of the inspections. No warranty is given as to the possibility of changes in the condition of the Site since the time of the investigation.
- The content of this report represents the professional opinion of experienced environmental consultants. Arcadis does not provide specialist legal or other professional advice. The advice of other professionals may be required.
- 10. Where intrusive investigation techniques have been employed they have been designed to provide a reasonable level of assurance on the conditions. Given the discrete nature of sampling, no investigation technique is capable of identifying all conditions present in all areas. In some cases the investigation is further limited by site operations, underground obstructions and above ground structures. Unless otherwise stated, areas beyond the boundary of the site have not been investigated.
- 11. If below ground intrusive investigations have been conducted as part of the scope, service tracing for safe location of exploratory holes has been carried out. The location of underground services shown on any drawing in this report has been determined by visual observations and electromagnetic techniques. No guarantee can be given that all services have been identified. Additional services, structures or other below ground obstructions, not indicated on the drawing, may be present on Site.
- 12. Unless otherwise stated the report provides no comment on the nature of building materials,

operational integrity of the facility or on any regulatory compliance issue

### **APPENDIX C**

## **AEG Reports**

# PRAIRIE SITE **GROUND INVESTIGATION WORKS**





Contract Number: 4251 Client: South Tees Development Corporation Consulting Engineer: Arcadis

Date: July 2020

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> **2** 01254 503 200 Q 01254 662 590

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**



### REPORT CONTROL SHEET

#### **Contract Details**

Contract Title	Prairie Site Ground Investigation Works
Contract Number	4251
Location	Redcar Steelworks, TS6 7BJ
National Grid Reference	NZ 214 547

#### **Report Details**

Report Status	Draft (Rev.01)	Draft (Rev.01)				
Report Type	Factual					
Volume Number	1 of 1					
Copy Number	PDF of PDF					
Report Recipient	Jonathan Miles		Arcadis			

#### **Client/Consultant Engineer Details**

Client	Consultant Engineer
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# Signed & Approved On Behalf of Allied Exploration & Geotechnics Limited

Reports Engineer	Approved:	Date:
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Technical Manager	Approved:	Date:
<b>Kerry Wade</b> BSc (Hons), MSc, FGS, MCMI		29/07/2020
Managing Director	Approved:	Date:
<b>Nick Vater</b> BSc (Hons), MSc, CGeol, EurGeol, FGS.		29/07/2020

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#### PRAIRIE SITE GROUND INVESTIGATION WORKS

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Status: Draft

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

#### **FIELD DATA ENCLOSURES: Key Sheets** 0 **Exploratory Hole Location Plan** 1 Borehole Records 2 Trial Pit Records 3 Groundwater Observation Made at the Time of Site Works 4 **Groundwater Monitoring Results** 5 Gas Monitoring Results 6 Continuous Groundwater/Tidal Monitoring 7 **IN-SITU TESTING ENCLOSURES: Test Report Certificate** 0 Standard Penetration Test Results 1 Hand Shear Vane Test Results 2 Photo-Ionisation Detector Test Results 3 In-situ Water Quality Parameter Test Results 4 Hydraulic Conductivity: Slug Test Results 5 LABORATORY ENCLOSURES: Laboratory Report Certificate 0 Sample Description Sheets 1 Moisture Content/Plasticity Index and Moisture Content 2 **Determination of Particle Density** 3 Particle Size Distribution Sieving and Sedimentation Determination of Sulphate and pH (Tested Externally) Undrained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement **Determination of Point Load Index** Determination of Unconfined Compressive Strength (Tested Externally) 8

Abbreviation	Definition
CP	Cable Percussion
RC	Rotary Coring
RO	Rotary Openhole

Text Abbreviations

**APPENDICES:** 



Appendix I

Specialist Chemical Testing (Tested Externally)

**ALLIED EXPLORATION & GEOTECHNICS LIMITED** 

1. INTRODUCTION

The site work was commissioned in order to augment previous ground investigation work, and to determine

the ground and groundwater conditions on site prior to the proposed remediation works.

Allied Exploration & Geotechnics Limited (AEG) were contracted by the South Tees Development

Corporation with Arcadis acting in the capacity of Consulting Engineer to perform a ground investigation at

this site in order to provide information on the subsurface ground and groundwater conditions as well as to

obtain samples for geotechnical and specialist chemical testing.

1.1 Scope of Works

The investigation works consisted of the following main elements:

Ten cable percussive boreholes, four of which were advanced using rotary coring techniques.

One hundred and twenty two machine excavated inspection pits.

Associated sampling.

• In-situ Standard Penetration, Hand Shear Vane, Photo-Ionisation Detector, In-situ Water Quality

Parameter and Hydraulic Conductivity (Slug) Testing.

Surface water sampling.

Continuous groundwater/tidal monitoring.

Installation of gas/groundwater monitoring instrumentation.

Post site works gas/groundwater monitoring and groundwater sampling.

Site work was carried out between the 1st April and 5th May 2020 with subsequent post site work monitoring,

laboratory testing and reporting thereafter. A factual report only was requested.

The comments and opinions expressed in this report are based on the ground conditions encountered during

the site work and on the results of tests carried out in the field and in the laboratory. There may, however, be

special conditions prevailing on the site which have not been disclosed by this investigation and which have

not been taken into account by this report.

2. THE SITE

2.1 Location

The National Grid Reference of the approximate centre of the site is NZ 214 547. This can be found on

Ordnance Survey 1:50,000 Sheet Number 93 (Middlesbrough, Darlington & Hartlepool). Part of this sheet is

reproduced as Figure 1, the Site Location Plan.

The site is located approximately 5.00km East North East of Middlesbrough city centre, and 3.00km South of

Teesport Docks.

Contract Title: Prairie Site Ground Investigation Works Contract Number: 4251 Client: South Tees Development Corporation Date: 30/06/2020

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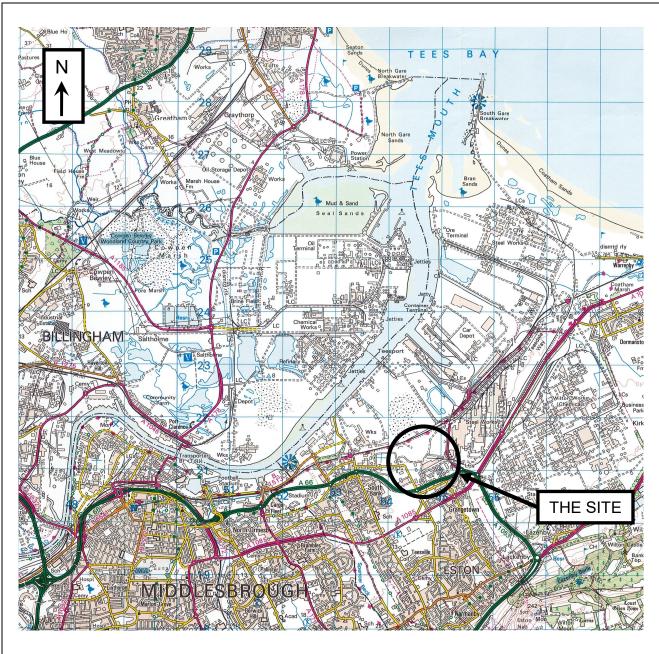


Figure 1: Site Location Plan

Reproduced from the Ordnance Survey 1:50,000 scale Landranger map by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, Crown Copyright. All rights reserved. Licence number AL 100002282.



#### 2.2 Site Description and Topography

The site is located off the A66 dual carriageway, and is bordered to the west by Eston Road and general industrial land uses on the outskirts of Middlesbrough. To the east, the site is bordered by Tees Dock Road, immediately beyond which is a British Steel Steelmaking Plant. To the south, there is an industrial estate, beyond which is the A66 and Grangetown, part of Middlesbrough's urban sprawl. The site is bounded to the north by the Darlington to Saltburn railway line, to the north of which lies more abandoned industrial land to the south of the River Tees.

The Prairie site can be accessed from Eston Road via the A66. The site previously comprised various heavy industrial uses and incorporated the former Cleveland South Steelworks, Coke Ovens and By-products plant. The infrastructure associated with these activities have all now been cleared to ground level, however significant foundations, infrastructure and base slabs are still in-situ; there areas that are anticipated to hold higher levels of contamination.

#### 3. SITE OPERATIONS

#### 3.1 General

All exploratory hole work, associated sampling, in-situ testing and logging was carried out in accordance with techniques outlined in Table 1, as appropriate; at positions as near as practicable to those supplied by the Consulting Engineer. These are shown on the Exploratory Hole Location Plan, Field Data Enclosure 1.

Reference Code Number	Title
BS 1377:1990	Methods of Test for Soils for Civil Engineering Purposes (where not in contravention or superseded by Eurocode references)
BS 5930:2015	Code of Practice for Ground Investigation (where not in contravention or superseded by Eurocode references)
BS EN ISO 14689-1:2003	Identification and Classification of Rock
BS EN ISO 14688-1:2002 & 14688-2:2004	Identification and Classification of Soil
BS 10175:2011+A2:2017	Investigation of Potentially Contaminated Sites
BS EN ISO 22476-3: 2005	Geotechnical investigation and testing - Field testing - Part 3 Standard Penetration Testing

Table 1: British Standard Reference Code Number

The depths of all exploratory holes, descriptions of the material encountered, details of any groundwater encountered, samples taken and in-situ testing carried out together with any other relevant information can be found on the Borehole and Trial Pit Records, Field Data Enclosures 2 and 3 respectively. A key to all symbols and abbreviations used throughout the report is included in the Key Sheets.

The primary purpose of ground investigation exploratory holes is to probe the stratified sequences of soil and/or rock. From the results of these probings no conclusion should be drawn concerning the presence of, size, lithological nature, and numbers per unit volume of ground cobbles and boulders in soil types such as glacial till (boulder clay). With respect to rotary coring, driller's records and observations of the recovered core



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are used to determine any zones of no recovery (core loss). These zones are based on the interpretation of

the logging engineer and are therefore subjective. Refer to the Key Sheets for further information.

3.2 **Health & Safety Considerations: Services** 

Before the commencement of any exploratory hole a search for underground services was conducted as

prescribed in HSE publication 'Avoiding Underground Services (HSG47)' and in accordance with in-house

internal safety procedure AEG-14.

Service plans were provided by the Client and were consulted prior to using a service locating device (such

as a Cable Avoidance Tool or C.A.T.) to scan a working area around the proposed exploratory hole location.

Where no services were indicated a 'Permit-to-Work' form was issued by the investigation supervisor and,

with the exception of trial pits/trenches, the position was commenced with a hand excavated inspection pit.

The inspection pit was also scanned during the excavation procedure. It should be noted that the digging of

an inspection pit only confirms or guards against the possible presence of underground public utility services

within the excavated pit. Where no services were indicated by the scanning procedure or inspection pit the

exploratory hole was commenced in accordance with the Contract Specification.

Services were encountered in many of the trial pits. Details of any services uncovered/located during this

investigation are given in the relevant Trial Pit Records. If required, the position was relocated in agreement

with the Consulting Engineer, otherwise the position was continued with care.

3.3 **Exploratory Holes: Boreholes** 

Ten boreholes were sunk using a Dando 2000 drilling rig, utilising cable percussive (shell and clay cutter)

techniques, to depths of between 6.80m (PRAIRIE AUK BH109) and 18.40m BGL (PRAIRIE AUK BH101).

Four boreholes were further advanced using either a Boart Longyear DB540 or a Comacchio GEO 305,

utilising rotary coring methods, to depths of between 11.80m (PRAIRIE AUK BH109) and 20.80m BGL

(PRAIRIE AUK BH110).

Rotary coring employed a 'P' (121mm OD) barrel in combination with P.C.D. drill bit together with water

flushing medium. This coring assembly was used to recover 92mm lined cylindrical specimens of rock core.

The Borehole Records are presented as Field Data Enclosure 2.

3.4 **Exploratory Holes: Mechanically Excavated Trial Pits** 

One hundred and twenty two trial pits were mechanically excavated using a 360 tracked excavator to depths

of between 0.10m (PRAIRIE AUK TP146A) and 5.20m BGL (PRAIRIE AUK TP199). The Trial Pit Records

are presented as Field Data Enclosure 3.

3.5 Samples

Holme Beck North respectively.

Representative samples of soil, water and rock were obtained from the exploratory holes and were taken to

the laboratory for selected geotechnical and specialist chemical testing. Two surface water samples

(PRAIRIE AUK SW1 and PRAIRIE AUK SW2) were taken from a beck at the south end of Eston Road and

Environmental samples were taken in accordance with the contract specification during the investigation

using an approved selection of container types in order to suit the encountered material properties and

designated laboratory analytical parameters. Full chain of custody procedures were in place post sampling

and during the transportation stage to the nominated specialist chemical laboratory. Environmental samples

were administered appropriately following the best practice guidance provided in the contract specification.

3.6 Groundwater

The comments on groundwater conditions are based on the observations made at the time of investigation.

It should be noted that groundwater levels may vary due to seasonal and other effects. Furthermore, water

was added during advancement of the boreholes in order to facilitate drilling operations. As a consequence

there is a possibility that this could have masked the discrete ingress of natural groundwater into the

boreholes, which subsequently may have been sealed as a result of progressing the casing.

Groundwater was encountered in the exploratory holes during the site works operation. Where groundwater

observations were made details are given on the relevant Exploratory Hole Record and in greater detail

(collectively in tabulated format) as Field Data Enclosure 4: Groundwater Observations Made at the Time of

Site Works. Standing groundwater levels were recorded many exploratory holes at the beginning and/or end

of each drilling shift. The water level is indicated on the applicable Exploratory Hole Record as part of the

boring progress information.

3.7 **Instrumentation & Monitoring** 

All ten boreholes (PRAIRIE AUK BH101 to PRAIRIE AUK BH110 inclusive) were installed with monitoring

instrumentation in accordance with the requirements of the Consulting Engineer. Details of the installations

are shown in the Borehole Summary Table within Field Data Enclosure 2.

Instruments were monitored for gas and groundwater on two occasions; one week after the completion of the

site works, and a fortnight thereafter in accordance with the Contract Specification. A record of the readings

is presented as Field Data Enclosure 5 (Groundwater Monitoring Results) and Field Data Enclosure 6 (Gas

Monitoring Results).

Continuous monitoring was undertaken was undertaking using a mini diver instrument. The instrument was

installed into PRAIRIE\_AUK\_BH101, PRAIRIE\_AUK\_BH103 and PRAIRIE\_AUK\_BH108 on 7th May 2020 in

order to assess groundwater fluctuations over the period of a complete tidal cycle. The tidal cycle readings

are presented as Field Data Enclosure 7.

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3.8 **Operative Observations: Potential Contamination** 

For the purposes of determining the condition of the site, with regard to human health and environmental

issues, reference should specifically be made to any specialist chemical testing undertaken as part of the

investigation scheme, as well as any supporting desk study and risk assessment documentation. The

information given herein collates the observations made by the operatives involved in the investigation only

and comments that have been indicated on the engineering records.

Where there was potential evidence of contamination, principally as a consequence of olfactory and visual

identification, information is provided in the relevant Borehole and Trial Pit Records.

It should be stressed that the information provided herein is subjective, as it is based on the perceptions of

individuals and not specialists routinely involved in the chemical determination of contaminated residues,

liquors, vapours or solid contaminants.

3.9 Surveying

The investigation positions were surveyed after completion of site works using a Leica Smartrover (Model

ATX 1230+ GNSS) GPS based instrument which provides corrected Ordnance Survey co-ordinates in real

time to an accuracy of within ± 30mm vertical and ± 30mm horizontal. These positions have been

subsequently plotted in AutoCAD® software and are shown on the Exploratory Hole Location Plan, Field Data

Enclosure 1.

4. **IN-SITU TESTING** 

4.1 General

In-situ testing as specified by the Consulting Engineer was carried out in selected boreholes in accordance

with techniques outlined in the relevant British Standard and/or AEG Quality Procedure. The results are

presented in the In-situ Testing Enclosures with a number of the test results summarised at the relevant

depth on the Borehole Records.

4.2 Standard Penetration Test Results

Standard Penetration Testing (SPT) was carried out in the boreholes in accordance with techniques outlined

in BS EN ISO 22476-3: 2005 in order to determine the relative density and consistency of the strata

encountered. The 'N' value (number of blows per 300mm penetration) or the penetration per blow was

recorded for each test. Uncorrected 'N' values or penetration per blow data are provided on the applicable

Borehole Records. (Refer to page 6 of the key sheets for further details).

More detailed information concerning the standard penetration testing is given in *In-situ* Testing Enclosure 1

which includes the following;

Initial exploratory hole conditions prior to the test procedure.

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- Calibration and energy ratio (E<sub>m</sub>) information for the SPT hammer device used to carry out the test.
- A breakdown of blows for each 75mm penetration interval.
- Rod length  $(C_R)$  and energy  $(C_E)$  correction ratios.
- Uncorrected 'N' value.
- Corrected 'N<sub>60</sub>' value that applies the rod (C<sub>R</sub>) and energy (C<sub>E</sub>) corrections indicated.
- Pertinent remarks corresponding to the test procedure.

In addition to the above, a graph has been prepared for each exploratory hole which plots the uncorrected and corrected 'N' value results against depth. Calibration certificates for the SPT apparatus used during the testing procedure are also presented for reference within this *In-situ* Testing Enclosure.

#### 4.3 **Hand Shear Vane**

Hand shear vane testing using calibrated Edeco Pilcon Hand Vane equipment was carried out in selected trial pits in accordance to the ground conditions encountered. The results are presented in detail within In-situ Testing Enclosure 2 with the average peak and residual shear strength values provided on the applicable Trial Pit Record.

#### 4.4 **Photo Ionisation Detector (PID)**

Photo-ionisation detector (PID) screening for semi-volatile and volatile organic compounds was conducted on selected environmental samples taken during the investigation using a MiniRAE 2000. The results for the sample based PID tests are recorded in tabular format as *In-situ* Testing Enclosure 3 and, where applicable, on the Borehole and Trial Pit Records.

#### 4.5 In-situ Water Quality Parameter Testing

Groundwater sampling was undertaken from all but one (BH102) of the installations during the second round of post site works monitoring in accordance with techniques outlined in the relevant British Standard and/or AEG Quality Procedure. Water Quality Parameters were recorded for the purged water prior to sampling. The parameters tested were pH, temperature, electrical conductivity, redox potential, total dissolved solids and dissolved oxygen. The results are presented in tabular format as In-situ Testing Enclosure 4.

#### 4.6 **Hydraulic Conductivity: Slug Tests**

Hydraulic conductivity testing was carried out in four selected monitoring standpipes PRAIRIE\_AUK\_BH101, PRAIRIE AUK BH103, PRAIRIE AUK BH108 and PRAIRIE AUK BH110 using the Displacement (Slug) Test Method. A mini-diver was installed in the standpipes prior to inserting the slug in order to continuously log the groundwater level during the test. A mechanical slug was then used to perform variable head (rising and falling) permeability tests within the instrumentation. The Hydraulic Conductivity (Slug Tests) results are presented in graphical format showing the rising and falling conditions as In-situ Testing Enclosure 5.



#### 5. LABORATORY TESTING

#### 5.1 General

Laboratory testing as scheduled by the Consulting Engineer was carried out on selected samples in accordance with techniques outlined in BS 1377:1990, AEG Laboratory Quality Procedures or other appropriate standard as quoted.

#### 5.2 Geotechnical Testing

The results are presented in the Laboratory Enclosures with an outline list of the procedures undertaken given in Table 2.

Test	Procedure
Moisture Content	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)
Plasticity Index and Moisture Content	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)
Determination of Particle Density	BS 1377 Part 2 1990
Particle Size Distribution Sieving	BS 1377 Part 2 1990
Particle Size Distribution Sedimentation	BS 1377 Part 2 1990
Determination of Sulphate and pH (Tested externally)	See External Laboratory Certificates
Undrained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement	BS 1377 Part 7 1990
Determination of Point Load Index	ISRM 1985
Determination of Unconfined Compressive Strength (Tested externally)	ISRM 1985

**Table 2: Geotechnical Testing** 

#### 5.3 Specialist Chemical Testing

Selected samples have been submitted for chemical analysis as specified the Consulting Engineer, conducted under a subcontract arrangement with Derwentside Environmental Testing Services (DETS). The results of this testing are presented as Appendix I.

## 5.4 Laboratory Identified Asbestos

Selected samples were analysed for asbestos content as specified by the Consulting Engineer. A number of tested samples were found to contain asbestos the details of which are presented in within the specialist chemical testing results report (see Appendix I for further details).

#### 5.5 Slag Testing

A number of selected samples were scheduled for slag testing which was conducted under a subcontract arrangement with Thomas Research Services. This testing includes petrology, expansion tests and interpretative reporting. The results of this testing is included within Appendix II.



**Key Sheets** 







#### INTRODUCTION

The following explanatory notes define the terminologies, abbreviations and symbols pertaining to each individual column or section of the Exploratory Hole records. 'Exploratory Hole' is used as a general term in this report to comprise borehole, drillhole, and trial pit. All exploratory hole records have been produced using 'gINT®', which is an integrated software environment for the storage and manipulation of subsurface data.

The primary purpose of ground investigation exploratory holes is to probe the stratified sequences of soil and/or rock. From the results of these probings no conclusion should be drawn concerning the presence of, size, lithological nature, and numbers per unit volume of ground cobbles and boulders in soil types such as glacial till (boulder clay). With respect to rotary coring, driller's records and observations of the recovered core are used to determine any zones of no recovery (core loss). These zones are based on the interpretation of the logging engineer and are therefore potentially subjective. In addition, where relevant, every effort is made to highlight material/zones that may relate to suspected old workings. However, it should be noted that this is not straightforward (especially without detailed information regarding anticipated subsurface conditions) and therefore no guarantee can be made with regards to the accuracy of the interpretation of the recovered core.

#### INFORMATION COMMON TO ALL EXPLORATORY HOLE RECORDS

#### Status Box

The status box in the top right hand corner of each exploratory hole record gives the status of each individual record i.e. PRELIM1, PRELIM2, PRELIM3 FINAL etc. The date shown relates to the last instance the data was revised. This information is for AEG Quality Assurance only.

#### **Exploratory Hole No**

The identity number used throughout the report.

#### Project

The ground investigation project name. Occasionally the project name may be shortened or abbreviated due to string length restraints imposed by the gINT® computer programme.

#### Client

Client's name responsible for funding the ground investigation project. The Client's name may be shortened or abbreviated due to string length restraints imposed by the gINT® computer programme.

#### Location

The exploratory hole position given as either national grid co-ordinates, local grid if specified, or a reference name normally pertaining to the area of investigation.

#### Method (Equipment)

Represents the drilling, excavation or boring method(s) or equipment used.

#### Ground Level (m(AOD))

The precise ground level in metres above Ordnance Datum at the exploratory hole location from which the reduced level for each stratigraphic boundary is calculated.

#### Date

The date relating to the start of the exploratory hole excavation.

#### Sheet

The sheet number and total number of sheets for the particular record.

#### Checked By

Printed signature of the person who has carried out the technical quality check on the log.

#### Logged By

The name of the engineer who has carried out the logging of the exploratory hole.

#### Contract No.

The Allied Exploration & Geotechnics Limited reference number for the project.





#### INFORMATION RELEVANT TO BOREHOLE AND WINDOW/WINDOWLESS SAMPLE HOLE RECORDS

#### Sample & Tests Columns

Depth The depth over which a sample or test is taken is shown in depth column of the exploratory hole record in a "from...to"

format.

Type No Indicates the type of sample/test and number given by the driller.

Test Result Result of the test given in the applicable units.

Water Column

Level of groundwater strike within an exploratory hole. The symbol  $\frac{1}{2}$  denotes a water strike and is suffixed with a number, which indicates the strike order. The corresponding unfilled symbol  $\frac{1}{2}$  is the depth the strike rose to. Water Strike

Groundwater seepage within an exploratory hole is denoted by the symbol. Seepage

Strata Columns

Reduced Level

The corresponding reduced level of each soil or rock boundary in metres Ordnance Datum.

Legend

A graphical representation of the materials encountered using BS 5930:1999 Amendment No.2 (Aug 2010) recommended

symbols for soil and rock.

Depth (Thickness)

The depth below ground level of each soil or rock boundary in metres and the thickness of each individual stratigraphic unit

Description

Engineering description of each individual soil or rock type follows recommendations outlined in Section 6 of BS 5930:1999 Amendment No.2 (Aug 2010) with the following implementation:

- The amendment of section 6 incorporates the guidance indicated in BS EN ISO 14688-1:2002, BS EN ISO 14688-2:2004 and BS EN ISO 14689-1:2003 European Standard with particular emphasis on current UK practice.
- Supplementary laboratory or in-situ assessed measurements of undrained strength are provided where applicable information is available in parenthesis in accordance with clause 41.3.2 BS 5930:1999 Amendment No.2 (Aug 2010) after the field strength determined consistency. The description based measurement table indicating the quantitative undrained strength classification divisions is provided in Key Sheets Table 1.

Term based on measurement	Undrained strength classification definition cu, in kPa (from BS EN ISO 14688-2:2004, 5.3, Table 5)
Extremely low	<10
Very low	10-20
Low	20-40
Medium	40-75
High	75-150
Very High	150-300
Extremely High	300-600

#### **KEY SHEETS TABLE 1**

3 Cobble and boulder content is expressed in accordance with the terms provided in EN ISO 14688-2: 2004 where visually identified in trial pit excavations, or inferred/recovered during the drilling operations. The assessment of frequency and spatial occurrence of coarse and very coarse rock material should not be considered as precise, but only an indicator or estimate of the potential conditions. It should be noted that the recovery of coarse or very coarse particles in boreholes is dependent on the limitations imposed by the casing diameter. The terminology used is outlined in Key Sheets Table 2.





Fraction	Percent by Mass	Term
	<5	Low boulder content
Boulders	5 to 20	Medium boulder content
	>20	High boulder content
	<10	Low cobble content
Cobbles	10 to 20	Medium cobble content
	>20	High cobble content

**KEY SHEETS TABLE 2** 

Rock Strength based on assessed field or measured unconfined compressive strength follows the classification scheme given in clause 44.2.1 BS5930:1999 Amendment No.2 (Aug 2010) as outlined in Key Sheets Table 3.

Term for use in field or based on measurement	Definition for field use	Definition on basis of Unconfined Compressive Strength measurement (MPa)	Old Classification of rock strength: Terminology (Strength Range MPa)	Old Classification of rock strength: Determination Method	
Extremely weak	Can be indented by thumbnail. Gravel sized lumps crush between finger and thumb.	0.6-1.0	Very Weak (<1.25)	Lumps can be crushed between fingers	
Very weak	Crumbles under firm blows with point of geological hammer. Can be peeled by a pocket knife.	1-5	Weak (1.25 – 5)	Lumps can be broken with heavy hand pressure	
Weak	Can be peeled by a pocket knife with difficulty. Shallow indentations made by firm blow with the point of geological hammer.	5-25	Moderately Weak (5-12.50)	This slab can be broken with heavy pressure	
Medium Strong	Cannot be scraped with pocket knife. Can be fractured with a single firm blow of geological hammer.	25-50	Moderately Strong (12.50-50)	Rock can be broken in the hand with a hammer	
Strong	Requires more than one blow of geological hammer to fracture.	50-100	Strong (50-100)	Rock can be broken on a flat surface using a hammer	
Very Strong	Requires many blows of geological hammer to fracture.	100-250	Very Strong (100-200)	Rock chipped by blows with a hammer	
Extremely strong	Can only be chipped with geological hammer.	>250	Extremely Strong (>200)	Rock rings when hit with a hammer	
	Based on BS EN ISO 14689-1:2003 4.2.7, Tab	le 5	BS5930: 1999 (Superseded		

#### **KEY SHEETS TABLE 3**

Where 'rock weathering classification' can be applied it is 'Approach 4' which will be used. If any other approach is used the factual text of the report will provide details of the applicable specific approach. (Ref.: Figure 19, p143, BS 5930:1999 Amendment No.2 (Aug 2010)). An outline of the 'Approach 4' rock weathering classification scheme is provided as Key Sheets Table 4.

APPRO	APPROACH 4 CLASSIFICATION INCORPORATING MATERIAL AND MASS FEATURES							
Class	Classifier	Typical characteristics						
Α	Unweathered	Original strength, colour, fracture spacing						
В	Partially weathered	Slightly reduced strength, slightly closer fracture spacing, weathering penetrating in from fractures, brown oxidation						
С	Distinctly weathered	Further weathered, much closer fracture spacing grey reduction						
D	Destructured	Greatly weakened, mottled, ordered lithorelics in matrix becoming weakened and disordered, bedding disturbed.						
E	Residual or reworked	Matrix with occasional altered random or 'apparent' lithorelics, bedding destroyed. Classed as reworked when foreign inclusions are present as a result of transportation.						

**KEY SHEETS TABLE 4** 





#### Instrument/Backfill Column

A graphical representation of backfill material or instrumentation detail using graphic legends. Its placement in the column is relative to depth in metres and corresponds to the exploratory hole in scale.

#### **Boring Progress and Water Observations Columns**

This section provides information on each day's production as a daily log.

Date Date of shift.

Depth Depth of hole at the start of the shift.

Casing Casing's depth at the start of the shift.

Casing Dia Casing's diameter at the start of the shift.

Water Depth Water level within the borehole at the start and end of shift.

#### **Chiselling Columns**

Indicates where hard strata occurred in the borehole and breaking out was carried out to advance the borehole.

From The depth commenced.

To The depth finished.

Hours The time spent for breaking out.

#### Water Added Columns

Indicates the depth range where water was added to the borehole to facilitate boring or to prevent stress relief disturbance "blowing/boiling" in granular

soils.

From Depth in metres from where water was added.

To Depth in metres to where water was added.

#### **General Remarks**

Any remarks believed to be relevant to the exploratory hole.

#### INFORMATION RELEVANT TO PIT/TRENCH RECORDS

The pit/trench records follow the same format as the borehole and window/windowless sample hole records for the Samples & Tests, Water and Strata columns. However, in addition to these there are the following:

#### Plan

A schematic plan view of the pit showing its excavated dimensions together with its orientation, given as a compass bearing to magnetic north.

#### Groundwater

Notes on water bearing horizons.

#### Stability

The engineer's comments outlining the stability of the sides during pit excavation.

#### General Remarks

The engineer's comments of any other information relevant to construction of the pit.

#### Additional Information

An indication if a sketch and/or photographs accompany the record.





#### **Underground Services**

Depth service was encountered.

Orientation Orientation given as a compass bearing to magnetic north.

Type Type of service encountered.

Diameter Diameter of service encountered.

Condition Condition the service encountered was noticed in.

#### INFORMATION RELEVANT TO DRILLHOLE RECORDS AND ROTARY CONTINUATION

#### **Run Details Columns**

Depth Each drill run is highlighted by a horizontal line with the top and bottom depths shown in metres. Core diameter (C Dia) is

presented also within each run.

TCR (SCR) RQD Information provided on the total core recovery, solid core recovery and rock quality designation. Refer to Abbreviations for

further details.

Fracture Index Information given relating to the fracture index of the rock.

#### Strata Columns

As the strata columns for borehole and window/windowless sample hole records except for description which is as follows:

Discontinuities Detail Information on core discontinuities, localised variations in weathering, lithology, strength and structure follows

recommendations outlined in Section 6 BS 5930:1999 Amendment No.2 (Aug 2010):Clause 44.

Main Engineering description of each individual soil or rock type follows recommendations outlined in Section 6 of BS 5930:1999

Amendment No.2 (Aug 2010).

#### Instrument/Backfill Column

A graphical representation of backfill material or instrumentation detail using graphic legends. Its placement in the column is relative to depth in metres and corresponds to the exploratory hole in scale.

#### **Drilling Progress and Water Observations Columns**

Date Date of shift.

Depth Depth of hole at the start of the shift.

Casing Casing's depth at the start of the shift.

Water Strike Depth at which water was encountered.

Water Standing Depth at which water in the hole levelled off.

#### **Standard Penetration Test**

Depth The depth commenced.

Type of standard penetration test (SPT).

Result of SPT.

Flush

From The depth commenced.

To The depth finished.

Type Details of the type of flush used. A = Air, F = Foam, W = Water and Pol = Polymer.

Returns An indication of the percentage of the returned flush material.

#### General Remarks

Any remarks believed to be relevant to the exploratory hole.





#### SAMPLES

B Bulk disturbed sample.

ES Environmental soil sample.

EW Environmental water sample.

G Gas sample.

J Small disturbed sample.

LB Large bulk disturbed sample.

P Piston sample.

P\* An attempted but failed undisturbed piston sample.

U Undisturbed sample.

U\* An attempted but failed general purpose undisturbed sample.

U<sub>(ss)</sub> Sample has been subsampled

ES<sub>(U)</sub> Brackets following a sample denotes a subsample. The sample information within the brackets is the origin of the

subsample.

W Water sample.

#### **IN-SITU TESTS**

CBR California Bearing Ratio mould sample or test.

HSV In-situ hand shear vane.

HSV\* An attempted but failed in-situ hand shear vane.

HSV result of e.g 80(20)kPa Denotes average HSV peak result followed by average HSV residual result (in brackets).

HP Hand penetrometer test.

K (F) Falling head permeability test.

K (R) Rising head permeability test.

K (C) Constant head permeability test.

K (P) Packer permeability test.

PT Pressuremeter test.

PID Photo ionisation detector test.
FID Flame ionisation detector test.

S Standard Penetration Test (SPT) using the split barrel sampler (shoe). The corresponding uncorrected 'N' value is

given in the test result column with more detailed information provided in the In-Situ Testing Enclosures where

applicable. Testing has been conducted in accordance with BS EN ISO 22476-3: 2005.

C Denotes SPT test using a solid cone in preference to the split barrel sampler (usually in coarse granular soil) with all

other reporting requirements as outlined above for the split barrel sampler.

S/C result of e.g. 1/2.94 Denotes where full penetration has not been achieved during the SPT test. In such cases the penetration (mm) per

blow is recorded in the test result column e.g. 1/2.94 is 2.94mm of penetration per single blow.

SV In-situ down-the-hole shear vane test. The remoulded shear strength is given in brackets.

#### **ROCK QUALITY AND CORE RECOVERY**

TCR Total Core Recovery - the length of the recovered core expressed as a percentage of the length of core run.

SCR Solid Core Recovery - the sum length of all core pieces that are recovered with at least one full diameter, expressed

as a percentage of the length of core run.

RQD Rock Quality Designation - The sum length of all core pieces that are 100mm or longer (measured along the centre

of the core), expressed as a percentage of the length of core run.

FI Fracture Index - The number of fractures per 1000mm length of solid core.

NI Non-intact - The material recovered in a non-intact state.

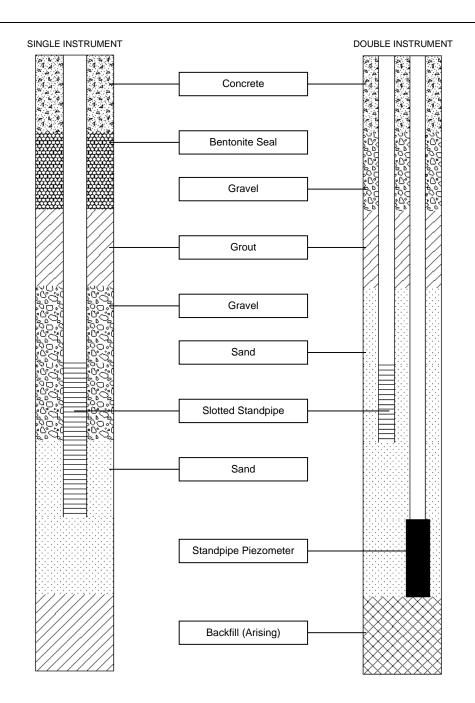
NR No recovery from the core run. These zones are based on the interpretation of the logging engineer and are

therefore potentially subjective.





Symbols and Abbreviations: Explanation of Instrumentation Legends Used







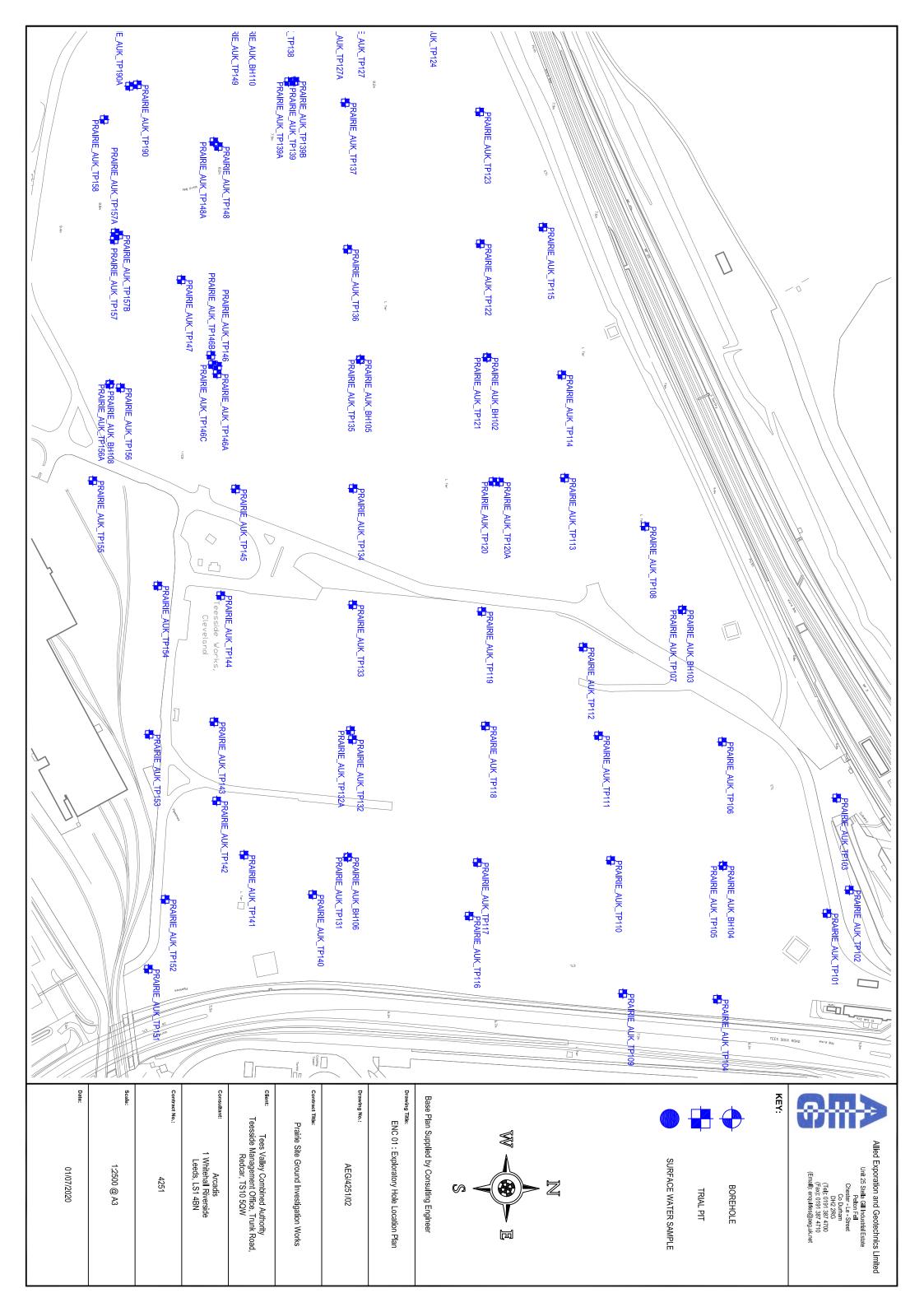
Symbols and Abbreviations: Explanation of Legends Used

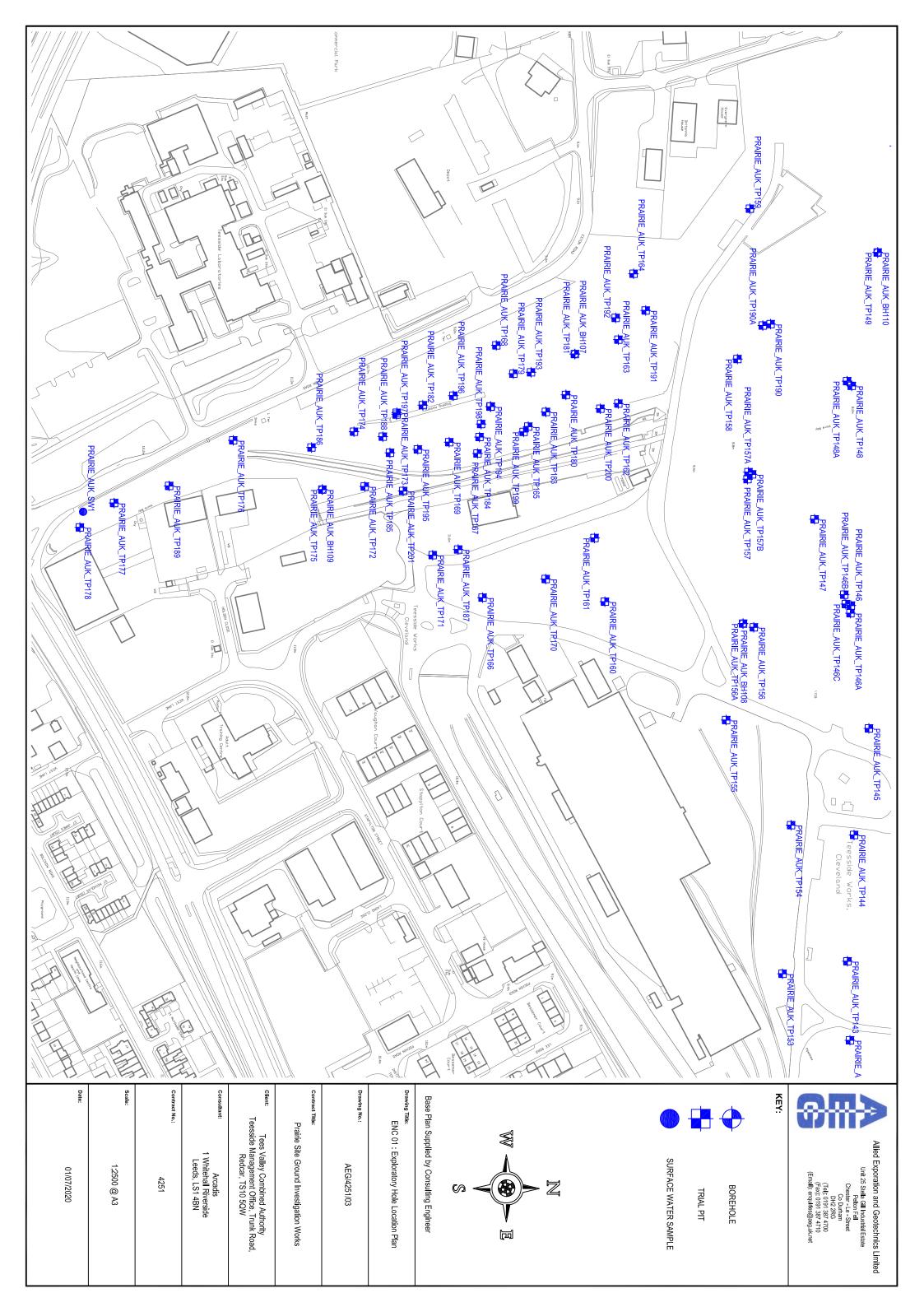
				Ro	cks			
So	ils	0. "				,		
			Sedimentary		norphic	Igneous		
	Made Ground		Chalk		Coarse Grained	+ + + + + + + + + + + + + + + +	Coarse Grained	
	Cobbles and Boulders		Limestone		Medium Grained	+++++ +++++ +++++ +++++ +++++	Medium Grained	
	Gravel		Conglomerate		Fine Grained		Fine Grained	
	Sand		Breccia					
× × × × × × × × × × × × × × × × × × ×	Silt		Sandstone					
	Clay	X X X X X X X X X X X X X X X X X X X	Siltstone					
77 77 77 77 77 77 77 77 77 77 77 77 77	Peat		Mudstone					
######################################	Topsoil		Shale					
Note: Composite signified by combi		3	Coal					
× × × × × × × × × × × × × × × × × × ×	Silty Sand		Pyroclastic (Volcanic Ash)					
		$\begin{array}{c c}       &  &  &  &  \\       &  &  \\       &  &  &  \\       &  &  &  \\       &  \\       &  \\       &  &  \\      \hline   &  &  \\       &  &  \\       &  &  \\       &  \\       &  \\ \hline         &  \\ \hline   &  \\ \hline                               $	Gypsum					

**Exploratory Hole Location Plan** 









**Borehole Records** 



## **Borehole Summary Table**

Exploratory Hole Number	Drilling Method	Completion Depth (m BGL)	Depth of installation (m BGL)	Diameter/Type of instrumentation	Instrumentation Response zone (m BGL)	Remarks
PRAIRIE_A	СР	18.40	10.00	19mm diameter piezometer standpipe	4.00-10.00	Advanced through PRAIRIE AUK TP127A.
UK_BH101	GP .	10.40	16.50	50mm diameter slotted standpipe	14.50-16.50	Advanced to required depth.
PRAIRIE_A UK_BH102	СР	8.00	7.20	50mm diameter slotted standpipe	2.00-7.20	Advanced through PRAIRIE_AUK_TP121. Advanced to required depth.
PRAIRIE_A UK_BH103	СР	13.80	8.50	50mm diameter slotted standpipe	3.00-8.50	Advanced through PRAIRIE_AUK_TP107. Advanced to required depth.
PRAIRIE_A UK_BH104	CP+RC	18.50	18.50	50mm diameter slotted standpipe	14.50-18.50	Advanced through PRAIRIE_AUK_TP105. Continued by rotary coring from 13.50m BGL. Advanced to required depth.
PRAIRIE_A UK_BH105	СР	12.00	11.00	50mm diameter slotted standpipe	8.00-11.00	Advanced through PRAIRIE_AUK_TP135. Advanced to required depth.
PRAIRIE_A UK_BH106	СР	10.80	10.00	50mm diameter slotted standpipe	4.00-10.00	Advanced through PRAIRIE_AUK_TP131. Advanced to required depth.
PRAIRIE_A UK_BH107	СР	9.80	9.50	50mm diameter slotted standpipe	4.00-8.00	Advanced through PRAIRIE_AUK_TP181. Advanced to required depth.
PRAIRIE_A	CP+RC	14.00	6.00	19mm diameter piezometer standpipe	3.00-6.00	Advanced through PRAIRIE_AUK_TP156A. Continued by rotary coring
UK_BH108	CFTRO	RC 14.00	14.00	50mm diameter slotted standpipe	10.00-14.00	from 9.50m BGL. Advanced to required depth.
PRAIRIE_A UK_BH109	CP+RC	11.80	11.80	50mm diameter slotted standpipe	7.80-11.80	Advanced adjacent to PRAIRIE_AUK_TP175. Continued by rotary coring from 6.80m BGL. Advanced to required depth.
PRAIRIE_A UK_BH110	CP+RC	20.80	20.80	50mm diameter slotted standpipe	16.80-20.80	Advanced through PRAIRIE_AUK_TP149. Continued by rotary coring from 15.80m BGL. Advanced to required depth.

Any relevant photographs are presented after the applicable Window/Windowless Sample Hole Record CP = Cable Percussion, RO = Rotary Openhole, RC = Rotary Coring, DS = Dynamic Sampling



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## **BOREHOLE RECORD**

PRELIM3

Project:
Prairie Site Ground Investigation Works

Exploratory Hole No.

Client:
South Tees Development Corporation

E:454312.599 N:521393.254

Method (Equipment):
Cable Percussion (Dando 2000)

SAMPLES & TESTS

STRATA

STRATA

SAMPI	LES & TI	ESTS					STRATA	nt/
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
				8.24		(0.40)	MADE GROUND (Brown grey sand and gravel. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded and includes slag, concrete, macadam and roadstone).  MADE GROUND (Red brown sandy gravel with medium cobble content and fragments of metal. Gravel is fine to coarse subangular and includes brick, concrete, slag and refractory brick).	####################################
			<b>₹</b>	5.64		1.90 	Firm yellow brown mottled grey sandy CLAY. (Possible Made Ground).	
3.00 3.00-3.45 3.00 3.45	ES1 U2 J3	(45) 0.2ppm	主		× × × × × × × × × × × × × × × × × × ×	, , , , , , , , , , , , , , , , , , ,	Soft to firm thinly laminated brown slightly sandy slightly gravelly silty CLAY with fine yellow brown sand on the laminae. at c.3.00m BGL low strength. Clay is of intermediate plasticity.	38888888
4.00-4.45 4.00-4.45 4.50	B5 SJ4 J6	N13			X X X X X X X X X X X X X X X X X X X			
5.00-5.45	U7	(60)			× × × × × × × × × × × × × × × × × × ×	<del>5.1</del>	at c.5.00m BGL low strength. Clay is of intermediate plasticity.	
5.45 6.00-6.45 6.00-6.45	J8 B10 SJ9	N17			× 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0	(7.60)		

Borin	ng Progres	s and Wat	er Observa	itions	Chis	Chiselling Water Added			eral
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Rem	arks
27/04/2020	0.00	0.00	200					(1) Description derived from (2) Advanced through trial p PRAIRIE_AUK_TP127A. 0.00-3.00m BGL derived fro PRAIRIE_AUK_TP127A. (3) Water strikes at 3.00 an rose to 2.58 and 12.36m BG (4) Double installation: 1\00 standpipe and 1\00.50mm installed between 4.00-10.0 14.50-16.50m BGL respecti	oit sescriptions between om d 14.80m - water level SL (20mins) respectively. 19mm diameter slotted diameter slotted standpipe 0m and between
All din	nensions i Scale 1:5				nation of symbo		Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>

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## **BOREHOLE RECORD**

Status:-PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_BH101 South Tees Development Corporation E:454312.599 N:521393.254 Start Date: 27/04/2020 Ground Level (m): 8.644 Method (Equipment): Cable Percussion (Dando 2000) 2 of 3

SAMP	LES & T	ESTS					STRATA	nt/
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
8.00-8.45 8.45	U12 J13	(65)			XO X X X X X X X X X X X X X X X X X X		Soft to firm thinly laminated brown slightly sandy slightly gravelly silty CLAY with fine yellow brown sand on the laminae. (continued) at c.8.00m BGL medium strength.	
9.00	J14				x x x x x x x x x x x x x x x x x x x	<u>}</u>		
9.50-9.95 9.50-9.95	B16 SJ15	N18		-1.96	** - X - X - X - X - X - X - X - X - X -	10.60		
10.50	J17 U18	(100)		-1.90	× 0	10.60	Firm to stiff red brown slightly sandy gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, mudstone, siltstone and coal. at c.11.00m BGL high strength. Clay is of low plasticity.	
11.45	J19					- (1.70) - - -		
12.00	J20		2 <u>2</u>	-3.66		12.30		
12.50-12.95 12.50-12.95	B22 SJ21	100/285mm	<u> </u>				Stiff to very stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular to subrounded and includes sandstone, mudstone and siltstone.	
13.50	J23				-	(2.50)		
14.00-14.45 14.00-14.45	B25 SJ24	100/285mm	<b>→</b>	-6.16	0	14.80		
15.00	J26		<u> </u>	30		, , ,	Firm dark brown very sandy slightly gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, mudstone and siltstone.	0000
15.50-15.95 15.50-15.95	B28 SJ27	100/245mm			- 0	-(1.40) - - - - -		

Boring Progress and Water Observations					Chiselling		Water Added	General	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	From - To Duration (hh:mm)		Rem	arks
27/04/2020 28/04/2020	10.50 10.50	10.03 10.03	200 200	Dry 9.82				(1) Description derived fron (2) Advanced through trial I PRAIRIE_AUK_TP127A. D 0.00-3.00m BGL derived fr PRAIRIE_AUK_TP127A. (3) Water strikes at 3.00 ar rose to 2.58 and 12.36m Bi (4) Double installation: 1No standpipe and 1No. 50mm installed between 4.00-10.0 14.50-16.50m BGL respect	oit escriptions between om  Id 14.80m - water level GL (20mins) respectively. 1 9mm diameter slotted diameter slotted standpipe 00m and between
All disconnique in markets						Checked by:	I odded by:	Contract No.	

All dimensions in metres Scale 1:50  For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>
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## **BOREHOLE RECORD**

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_BH101 South Tees Development Corporation E:454312.599 N:521393.254 Start Date: 27/04/2020 Ground Level (m): 8.644 Method (Equipment): Cable Percussion (Dando 2000) 3 of 3

			1					1
SAMP	LES & T	ESTS					STRATA	lent/
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
16.50 17.00-17.45 17.00-17.45	J29 B31			-7.56	O     O   O   O   O   O   O   O   O	16.20 - - - - - - (1.50)	Stiff to very stiff dark brown slightly sandy gravelly CLAY. Gravel is fine to coarse subangular to subrounded and includes sandstone, mudstone and siltstone. (Driller notes sand interbeds).	
17.00-17.45	SJ30	N55		-9.06		17.70		
18.00 18.00	J32 B34	400/07				(0.70)	Weak red brown MUDSTONE with gypsum interbeds.	
18.00 18.40	SJ33 SJ35	100/25mm 100/20mm		-9.76		18.40	Complete at 18.40m BGL.	******
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Boring Progress and Water Observations				Chiselling Water Added			General	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks
28/04/2020 29/04/2020 29/04/2020	17.50 17.50 18.40	16.80 16.80 18.20	200 200 200	12.06 10.47 11.02	16.20 - 17.00 17.70 - 18.00	3:30 1:00		(1) Description derived from drillers daily report. (2) Advanced through trial pit PRAIRIE_AUK_TP127A. Descriptions between 0.00-3.00m BGI. derived from PRAIRIE_AUK_TP127A. (3) Water strikes at 3.00 and 14.80m - water level rose to 2.58 and 12.36m BGL. (20mins) respectively. (4) Double installation: 1No. 19mm diameter slotted standpipe and 1No. 50mm diameter slotted standpipe installed between 4.00-10.00m and between 14.50-16.50m BGL respectively.

All dimensions in metres Scale 1:50	For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>
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## **BOREHOLE RECORD**

PRELIM3

Project:	Prairie Site Ground Inve	Explorat	tory Hole	No.				
Client:	South Tees Development Corporation	Location:	E:454597.680 N:521503.83		RAIRIE_	AUK_	BH1	)2
Method (Equi	ipment): Cable Percussion (Dando 2000)	•	Ground Level (m): 8.213	Start Date: 09/04/2020	Sheet:	1 of 1		

SAMP	LES & TESTS					STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
						(0.90)	MADE GROUND (Brown slightly gravelly sand. Sand is fine to coarse. Gravel is fine to coarse subangular and includes brick and slag).	
				7.31		(7.10)	MADE GROUND (Blue grey sandy gravel. Gravel is fine to coarse subangular to subrounded and includes slag. Slag content is 75-100%. Slag is vesicular. Slight hydrocarbon odour noted).	
6.00-7.00 7.00-8.00	B1						at c.7.00-8.00m BGL driller notes 'large crushed metal'.	
				0.21		8.00		

#### Complete at 8.00m BGL.

Borin	g Progres	s and Wate	er Observa	tions	Chise	elling	Water Added	General
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks
09/04/2020 09/04/2020 14/04/2020 14/04/2020	0.00 6.00 6.00 8.00	0.00 6.00 6.00 7.20	200 200 200 200	1.00 1.06 0.96	6.00 - 8.00	6:00		(1) Description derived from drillers daily report. (2) Advanced through trial pit PRAIRIE_AUK_TP121. Descriptions between 0.00-4.50m BGL derived from PRAIRIE_AUK_TP121. (3) 50mm diameter slotted standpipe installed to 7.20m BGL. (4) Borehole collapsed back from 8.00-7.20m BGL.

All dimensions in metres Scale 1:50	For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>
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5.50

6.50

7.45

7.00-7.45 7.00-7.50

5.50-5.95 5.50-5.95 .110

B12

SJ11

J13

U14 B16

J15

N21

(25)

#### **BOREHOLE RECORD**

PRELIM3

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Project: **Exploratory Hole No.** Prairie Site Ground Investigation Works Location: Client: PRAIRIE\_AUK\_BH103 South Tees Development Corporation E:454800.537 N:521660.804 Method (Equipment): Ground Level (m): 7 683 Start Date: Cable Percussion (Dando 2000) 07/04/2020 1 of 2 **SAMPLES & TESTS** STRATA Instrument/ Backfill Water Depth Reduced Depth Description MADE GROUND (Brown sandy gravelly topsoil. Sand is fine to coarse. Gravel is fine to coarse subangular and includes concrete, brick and roadstone). MADE GROUND (Firm yellow brown mottled grey slightly sandy gravelly clay with low cobble content. Fragments of wood. Gravel 1.50) is fine to coarse subangular to subrounded and includes brick and sandstone. Cobbles are subangular and include brick). 6.08 MADE GROUND (Black gravelly sand with low cobble content. (0.50) Sand is fine to coarse. Gravel is fine to coarse subangular and includes ash, macadam, coke and slag. Slag content is <50%. Slag is iron rich in places (rust). Cobbles are subangular and X include fused coke). (0.70) Firm to stiff grey brown slightly sandy CLAY. 2.50 2.50 2.50 ES1 U2 PID (30) <0.1ppm Firm laminated grey dark brown sandy silty CLAY with occasional 2.95 J3 sand lenses. Sand is fine to medium. 00000 3.50 3.50-3.95 3.50-3.95 B6 SJ5 N20 000 4.50 4.50-4.95 Ü8 (25)00 4.95 J9 

Borir	ng Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	Gen	eral
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks	
08/04/2020	0.00	0.00	200					(1) Description derived fror (2) Advanced through trial Descriptions between 0.00-PRAIRIE_AUK_TP107. (3) 50mm diameter slotted between 3.00-8.50m BGL.	oit PRAIRIE_AUK_TP107. -2.50m BGL derived from
All dir					nation of symbo		Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>

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## **BOREHOLE RECORD**

PRELIM3

Project:
Prairie Site Ground Investigation Works

Exploratory Hole No.

Client:
South Tees Development Corporation

E:454800.537 N:521660.804

Method (Equipment):
Cable Percussion (Dando 2000)

Ground Level (m):
7.683

O7/04/2020

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Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
8.00	J17			-0.62	<u>× × ·</u>	8.30		0000
8.50-8.95 8.50-8.95	B19 SJ18	N37		-0.62	*	6.30 - - - - -	Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to medium subrounded and includes sandstone, mudstone and limestone.	
9.50	J20					- - (2.40) - - -		
10.00-10.45	U21	(75)				- - - -		
10.45	J22			-3.02		10.70		_
11.00	J23						Stiff to very stiff grey brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded and includes sandstone, mudstone and limestone.	
11.50-11.95 11.50-11.95	B25 SJ24	N80				- (2.00) - - - - -		
12.50	J26			-5.02		12.70	Extremely weak thinly laminated red sandy MUDSTONE residual.	
13.00-13.45 13.00	B28 SJ27	100/200mm				- - (1.10)		
13.50 13.50	J29 SJ30	100/130mm		-6.12		13.80		
						_	Complete at 13.80m BGL.	
						<del>-</del> -		
						- - -		
						-		
						- - -		
						- - -		

Borin	g Progres	s and Wat	er Observa	tions	Chise	elling	Water Added	General		
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Rem	arks	
08/04/2020 09/04/2020 09/04/2020	11.00 11.00 13.80	10.80 10.80 10.80	200 200 200	Dry Dry Dry	13.20 - 13.50	1:00		(1) Description derived from (2) Advanced through trial Descriptions between 0.00- PRAIRIE_AUK_TP107. (3) 50mm diameter slotted between 3.00-8.50m BGL.	pit PRAIRIE_AUK_TP107. -2.50m BGL derived from	

All dimensions in metres Scale 1:50	For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>
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### **BOREHOLE RECORD**

PRELIM3

Project: **Exploratory Hole No.** Prairie Site Ground Investigation Works Location: Client: PRAIRIE\_AUK\_BH104 South Tees Development Corporation E:455006.172 N:521693.493 Method (Equipment):
Percussion/Rotary (Dando 2000/Boart Longyear DB540) Ground Level (m): 8.696 Start Date: 03/04/2020 1 of 2 **SAMPLES & TESTS STRATA** Instrument/ Backfill Water Depth Reduced Depth Description MADE GROUND (Brown sandy topsoil. Sand is fine to coarse). MADE GROUND (Strong grey concrete). (0.55) 0.60 MADE GROUND (Grey brown sandy gravel with medium cobble content. Gravel is fine to coarse subangular to subrounded and includes slag and concrete. Slag content is 50-75%. Slag is (0.90)vesicular green grey. Cobbles are subangular and include slag). MADE GROUND (Firm brown slightly sandy slightly gravelly clay with low cobble content. Gravel is fine to coarse subangular and includes sandstone, mudstone, slag and red brick. Cobbles are subangular and include red brick and slag). (2.70) MADE GROUND (Firm grey brown slightly sandy slightly gravelly clay with some partially decomposed plant remains. Gravel is fine to coarse subangular and include slag and red brick. Organic 4.40 4.30 odour noted). (1) Stiff red brown slightly sandy slightly gravelly CLAY. (1.10) ō Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to 5.50 FS1 5.50-5.95 5.50 U2 PID (100)coarse. Gravel is fine to coarse subrounded and includes 0.2ppm sandstone, mudstone, coal and limestone. 5 95 .13 6.50 .14 7.00-7.45 7.00-7.45 B6 SJ5 N32

Borin	ng Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	General		
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Rem	narks	
03/04/2020	0.00	0.00	200					(1) Description derived fror (2) Advanced through trial Descriptions between 0.00 PRAIRIE_AUK_TP105. (3) 50mm diameter slotted between 14.50-18.50m BG	pit PRAIRIE_AUK_TP1055.50m BGL derived from standpipe installed	
All din					nation of symbo		Checked by:	Logged by: J. Mvall	Contract No. 4251	

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## **BOREHOLE RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_BH104 South Tees Development Corporation E:455006.172 N:521693.493 Start Date: 03/04/2020 Method (Equipment):
Percussion/Rotary (Dando 2000/Boart Longyear DB540) Ground Level (m): 8.696 2 of 2

SAMP	LES & T	ESTS					STRATA	nent/ cfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
8.00 8.50-8.95	J7 U8	(100)			<u> </u>	(5.40)	Firm to stiff brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded and includes sandstone, mudstone, coal and limestone. (continued)	
8.95	J9					- - - - -		
9.50	J10				<u> </u>	- - - - -		
10.00-10.45 10.00-10.45	B12 SJ11	N36						
11.00 11.00-11.50	J13 B14			-2.20		10.90 - - -	Extremely weak thinly laminated sandy red brown MUDSTONE residual.	
11.50	U*15	(100)				# 		
12.00-12.45 12.00-12.45	B17 SJ16	100/270mm				(2.60)		
13.00-13.45	SJ18	100/225mm		-4.81		13.50		
							Boring complete at 13.50m BGL - continued by rotary drilling.	

Borin	g Progres	s and Wat	er Observa	itions	Chise	elling	Water Added	Gen	eral	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks		
03/04/2020 06/04/2020 06/04/2020	13.00 13.00 13.50	12.30 12.30 12.80	200 200 200	Dry Dry Dry	11.70 - 12.00	0:00		(1) Description derived fron (2) Advanced through trial I Descriptions between 0.00- PRAIRIE_AUK_TP105. (3) 50mm diameter slotted between 14.50-18.50m BG	oit PRAIRIE_AUK_TP1055.50m BGL derived from	
All din				nation of symbo		Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>		

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

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## **DRILLHOLE RECORD**

PRELIM3

C)															
Project:					Prai	rie Site G	Ground Inve	estigation Wo	rks			Explora	tory Hol	e No.	
Client:	So	outh Te	ees D	evelopr	nent Co	rporation		Location:	E:455006.172 N:5	21603 /0	PI	RAIRIE_	_AUK_	_BH10	4
Method (			Rotar	y (Danc	lo 2000/	Boart Lor	ngyear DB5	•	Ground Level (m): 8.696	21093.43	Start Date: 03/04/2020	Sheet:	1 of 3		
RUN	DETA	ILS							STRATA						
Depth &	TCR (SCR) RQD	Fracture Index	Water	Reduced Level	Legend	Depth (Thickness)			Descr	ription				Instrument/ Backfill	
(Core Ø)			>	Level		(THICKHESS)		Discontinuity I	Detail		Mai			드	
13.50	100 (50) 50	NI		-4.81		13.50 - - -	13.50-13.90m	ı non-intact.		laminat	ely weak thin led sandy red TONE distinc II.	brown	-		
(92mm)		7				-	13.90-14.50m spaced undula and gravel) dis	i subhorizontal ( ating rough open o scontinuities.	5-30 degrees) medium clean and infilled (sand						
14.50	100 (45) 15	NI				(2.00) - -	14.50-15.15m	ı non-intact.							
(92mm)		8				- - - -	15.15-15.50m spaced undula discontinuities	ating rough moder	5-30 degrees) medium ately open clean						
						-								l, 4H, 4l	
15.50	67 (0) 0	NI		-6.80		15.50	15.50-17.00m	ı non-intact.		laminat MUDS (Recov sandy ( coarse	ely weak thin led sandy red FONE residua ered as firm gravelly clay. Gravel is fin r and include	l brown al. red brown s Sand is find e to mediur	slightly e to n		
(92mm)															
17.00 <u>E</u>	0 (0) 0	NR				(3.00) - -	17.00-17.50m	ı no recovery.							

Drilling	Progress and	l Water Obser	vations	Standa	ard Pene	tration Test		Flush		Ge	neral	
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To	Туре	Returns (%)	Remarks		
07/04/2020	13.50	12.80	Dry				13.50 - 14.50 14.50 - 15.50 15.50 - 17.00 17.00 - 17.50 17.50 - 18.50	Water Water Water Water Water	100 100 100 100 100	(1) Description derived f (2) Advanced through tr PRAIRIE_AUK_TP105. 0.00-5.50m BGL derived PRAIRIE_AUK_TP105. (3) 50mm diameter slott between 14.50-18.50m l	Descriptions between d from ed standpipe installed	
All dimensions in metres Scale 1:25					tion of syn ns see Ke	nbols and y Sheets	Chec	ked by:	Logged by: J. Myall	Contract No. <b>4251</b>		

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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## DRILLHOLE RECORD

PRELIM3

Project:					Prai	rie Site C	Ground Inve	stigation \	Works						Explo	ratory Ho	le No.
Client:	Sc	outh Te	ees D	evelopr	nent Co	rporation		Location:	E:45	5006 172	N.5016	502 402		PF	RAIRIE	_AUK	_BH10
Method (	Equipme Percu	nt): ssion/	Rotar	y (Dand	lo 2000/	Boart Lo	ngyear DB5	40)	Gro	5006.172 und Level (m 8.6	111.52 10 11): 696	93.493	6tart Date 03/04/2		Sheet:	2 of 3	
RUN	DETA	.ILS							ST	RATA				!			ıt,
Depth			ē	Reduced		Depth		Description						Instrument/ Backfill			
& Core Ø)	TCR (SCR) RQD	Fracture Index	Water	Level	Legend	(Thickness)		Discontin	uity Detail					Main			
(92mm)	100 (0) 0	NI		-9.80		18.50	17.50-18.50m	non-intact.	i.		la M (F s: c:	aminate MUDST( Recove andy gr oarse. (	d sandy ONE restred as for avelly considered as for a second as for a second as for a second and and and and and and and and and a	/ red sidua irm re slay. S s fine	y and thic brown I. ed brown Sand is fir to medic mudston	slightly ne to um	
												Complete					
	rilling Dro	aroon or	d Mata	r Observat	ione	Standa	rd Panatration T	-oct		Eluch							

Drilling	g Progress and	l Water Observ	vations	Standa	ard Pene	tration Test		Flush		Ge	neral
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To	Туре	Returns (%)	Rer	marks
07/04/2020	18.50	13.50	7.23							(1) Description derived f (2) Advanced through tr PRAIRIE_AUK_TP105. 0.00-5.50m BGL derived PRAIRIE_AUK_TP105. (3) 50mm diameter slott between 14.50-18.50m	Descriptions between I from ed standpipe installed
All din	nensions ii Scale 1:2			For e	xplana eviatio	tion of syr ns see Ke	nbols and by Sheets	Ch	ecked by:	Logged by: J. Myall	Contract No. <b>4251</b>

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
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## **DRILLHOLE RECORD**

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_BH104 South Tees Development Corporation E:455006.172 N:521693.493

Start Date: 03/04/2020 Method (Equipment):
Percussion/Rotary (Dando 2000/Boart Longyear DB540) Ground Level (m): 8.696 3 of 3

# Figure PRAIRIE\_AUK\_BH104.1 13.50-15.50m BGL



# Figure PRAIRIE\_AUK\_BH104.2 15.50-18.50m BGL



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## **BOREHOLE RECORD**

PRELIM3

Project: Prairie Site Ground Inv	Prairie Site Ground Investigation Works											
Client: South Tees Development Corporation	Location:	E:454599.377 N:521402.0		RAIRIE_	_AUK_BH1	05						
Method (Equipment): Cable Percussion (Dando 2000)	•	Ground Level (m): 8.257	Start Date: 16/04/2020	Sheet:	1 of 2							

SAMP	LES & TI	ESTS					STRATA	_ if_
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
				8.16 7.16		0.10 (1.00)	MADE GROUND (Brown sandy topsoil).  MADE GROUND (Black brown sand and gravel with medium cobble content and fragments of wood and metal. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded and includes brick, concrete and slag. Cobbles are subangular and include brick	
				6.66		(0.50)	MADE GROUND (Black sandy gravel with high cobble content and fragments of wood, paper, tile, glass and metal. Gravel is fine to coarse subangular to subrounded and includes brick, concrete, slag and ash. Cobbles are subangular and include coal and slag).	
				5.76		(0.90) - - - 2.50	Firm light orange brown sandy CLAY.	
			<b>1</b>			(0.50) 3.00	Firm to stiff grey brown slightly sandy CLAY.	
3.00 3.00 3.00 3.45	ES1 U2 PID J3	(80) <0.1ppm	幸		X X X X X X X X X X X X X X X X X X X	7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7	Firm laminated grey brown sandy silty CLAY.	
4.00-4.45 4.00-4.45	B5 SJ4	N13	<u>2</u>		X X X X X X X X X X X X X X X X X X X	(3.70)		
5.00-5.45	U6	(80)			- x - :	7 1 1 2 1		
5.45	J7				× × × × × × × × × × × × × × × × × × ×	<del> </del>		
6.00	J8				× × × ·			
6.50-6.95 6.50-6.95	SJ9 B10	N19		1.56	* * * * *	6.70	Firm to stiff red brown slightly sandy gravelly CLAY. Gravel is fine to coarse subrounded and includes sandstone, mudstone, coal and limestone.	
7.50	J11					- (1.90) - -		

Borin	g Progres	s and Wat	er Observa	itions	Chise	elling	Water Added	General	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To Duration (hh:mm) From - To			Rem	arks
16/04/2020	0.00	0.00	200		(1) Description derived from drillers dail (2) Advanced through trial pit PRAIRIE Descriptions between 0.00-3.00m BGL PRAIRIE AUK_TP135. (3) 50mm diameter slotted standpipe in between 8.00-11.00m BGL. (4) Water strikes at 3.00m and 8.60m B level rose to 2.88m and 4.32m BGL res mins).				pit PRAIRIE_AUK_TP1353.00m BGL derived from standpipe installed and 8.60m BGL - water
All din	nensions ii Scale 1:5				nation of symbo		Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>

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## **BOREHOLE RECORD**

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_BH105 South Tees Development Corporation E:454599.377 N:521402.034 Start Date: 16/04/2020 Ground Level (m): 8.257 Method (Equipment): Cable Percussion (Dando 2000) 2 of 2

SAMPLI	ES & T	ESTS			T		STRATA	ient/ fill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
8.00-8.45 8.45	U12 J13	(90)	<b>₹</b>	-0.34		- - - - - 8.60	Firm to stiff red brown slightly sandy gravelly CLAY. Gravel is fine to coarse subrounded and includes sandstone, mudstone, coal and limestone. <i>(continued)</i>	0000
			₹	-0.34	0-0-0	- - - -	Very dense grey brown slightly clayey very sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded and includes sandstone, mudstone and limestone.	
9.00 9.00-9.50	J14 B15				0 0 0	<del>-</del> - - -		0000
9.50 9.50-9.95	SJ16 B17	100/185mm			0 0 0	- (2.40) - - - -		
10.50	J18			2.74	0 0 0	- - - 11.00		
11.00 11.00-11.20 11.20	SJ19 B20 SJ21	100/70mm 100/55mm		-2.14		- - - - - (1.00)	Extremely weak dark red MUDSTONE residual with some gypsum interbeds. (Recovered as gravelly sand).	
				-3.74		12.00		
						- - - - - - -	Complete at 12.00m BGL.	
						- - - - - - -		
						- - - - - -		
						- - - - -		
						- - - -		

Borin	g Progres	s and Wat	er Observa	tions	Chiselling Water Adde			General
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks
16/04/2020 17/04/2020 17/04/2020 20/04/2020 20/04/2020	11.00 11.00 11.40 11.40 12.00	10.80 10.80 11.00 11.00 11.80	200 200 200 200 200 200	5.09 7.36 7.89 7.82 7.92	11.00 - 11.20	1:00		(1) Description derived from drillers daily report. (2) Advanced through trial pit PRAIRIE_AUK_TP135. Descriptions between 0.00-3.00m BGL derived from PRAIRIE_AUK_TP135. (3) 50mm diameter slotted standpipe installed between 8.00-11.00m BGL. (4) Water strikes at 3.00m and 8.60m BGL - water level rose to 2.88m and 4.32m BGL respectively (20 mins).

All dimensions in metres Scale 1:50	For explanation of symbols and abbreviations see Key Sheets	Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>

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## **BOREHOLE RECORD**

PRELIM3

Project:
Prairie Site Ground Investigation Works

Exploratory Hole No.

Client:
South Tees Development Corporation

E:454999.256 N:521391.908

Method (Equipment):
Cable Percussion (Dando 2000)

Ground Level (m):
8.711

SAMP	LES & TI	ESTS					STRATA	ent/
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
				8.21		(0.50)	MADE GROUND (Grass over brown sandy gravelly topsoil. Gravel is fine to coarse subangular and includes brick, slag and concrete).	
						X - X - X - X - X - X - X - X - X - X -	MADE GROUND (Black grey sandy gravel with medium cobble content. Gravel is fine to coarse subangular to subrounded and includes slag, brick and ash. Slag content is 75-100%. Slag is vesicular grey green white. Cobbles are subangular and include brick and cement	
				6.21		(2.00)		
				6.21		2.50     (1.00)	Firm grey mottled orange brown slightly sandy clay.	
				5.21		(1.00)	Firm indistinctly laminated grey mottled orange brown slightly sandy CLAY.	
				4.21	0	4.50 - - - (1.00)	(1) Firm to stiff red brown slightly sandy gravelly CLAY.	
5.50 5.50-5.95 5.50 5.95	ES1 U2 J3	(100) <0.1ppm		3.21		5.50	Firm to stiff grey brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded and includes sandstone, limestone, mudstone and coal.	
3.50	J4					† † † †		0000
7.00-7.45 7.00-7.45	SJ5 B6	N27				(3.40)		

Borin	ng Progres	s and Wat	er Observa	itions	Chise	elling	Water Added	General		
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks		
06/04/2020	0.00	0.00	200					(1) Description derived fror (2) Advanced through trial Descriptions between 0.00- PRAIRIE_AUK_TP131. (3) 50mm diameter slotted 4.00-10.00m BGL.	pit PRAIRIE_AUK_TP131. -4.50m BGL derived from	
All din	All dimensions in metres For expla Scale 1:50 abbrevia						Checked by:	Logged by: J. Myall	Contract No. 4251	

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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## **BOREHOLE RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_BH106 South Tees Development Corporation E:454999.256 N:521391.908 Start Date: 06/04/2020 Ground Level (m): 8.711 Method (Equipment): Cable Percussion (Dando 2000) 2 of 2

SAMPLES & TESTS				STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill		
8.00 8.50-8.95	J7 U8	(100)		-0.19		8.90	Firm to stiff grey brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subrounded and includes sandstone, limestone, mudstone and coal. (continued)			
8.95	J9			-0.13			Extremely weak thinly to thickly laminated dark grey slightly sandy MUDSTONE residual.	0 0		
9.50	J10					- - (1.90)		0000		
10.00-10.45 10.00-10.45	B12 SJ11	N52				<del>-</del> - - -				
10.50 10.50	J13	100/40mm		-2.09		10.80	at c.10.50-10.80m BGL blue light grey in colour.  Complete at 10.80m BGL.			
						- - - -	Complete at 10.00m BGL.			
						- - - -				
						- - - -				
						- - - -				
						- - -				
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						- - - -				
						- - - -				
						- - - -				
						- - -				

Borir	ng Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	General Remarks	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To		
06/04/2020	10.80	10.30	200	Dry	10.20 - 10.50	10.20 - 10.50  1:00  (1) Description derived from drillers (2) Advanced through trial pit PRAIR Descriptions between 0.00-4.50m Bt PRAIRIE_AUK_TP131. (3) 50mm diameter slotted standpipe 4.00-10.00m BGL.			
				nation of symbo itions see Key S		Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>	

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

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#### **BOREHOLE RECORD**

PRELIM3

Project: **Exploratory Hole No.** Prairie Site Ground Investigation Works Location: Client: PRAIRIE\_AUK\_BH107 South Tees Development Corporation E:454402.534 N:521065.535 Method (Equipment): Ground Level (m): 10.158 Start Date: Cable Percussion (Dando 2000) 24/04/2020 1 of 2 **SAMPLES & TESTS** STRATA Instrument/ Backfill Depth Reduced Description Depth MADE GROUND (Brown clayey sand with many rootlets. Sand is fine to coarse and includes ash). MADE GROUND (Brown sandy gravel. Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and (0.70) includes red brick, concrete, ash, clinker and slag. Slag content 9.36 MADE GROUND (Grey cobbles and boulders. Cobbles are subangular and includes slag. Boulders are subangular and includes slag. Slag is vesicular). (0.90)8.46 Firm becoming stiff brown red grey CLAY with occasional sand lenses and interlaminated silt and clay laminae. (1.30)3.00 3.00 ES1 Firm to stiff fissured brown slightly sandy slightly gravelly CLAY. 3.00-3.45 3.00 (60) 0.1ppm U2 PID Gravel is fine to medium subangular and includes sandstone. 3.45 J3 4.00-4.45 4.00-4.45 В5 N17 00000 4.50 J6 5.00-5.45 U7 (65)5.45 J8 6.00 .19 6.50-6.95 6.50-6.95 SJ10 B11 N17 Firm to stiff red brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, ō mudstone and siltstone. 7.50 7.50-8.00

Borin	ng Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	Gen	eral
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To Duration (hh:mm)		From - To	Rem	arks
24/04/2020	0.00	0.00	200					(1) Description derived from (2) Advanced through trial p Descriptions between 0.00-PRAIRIE_AUK_TP181. (3) 50mm diameter slotted s 4.00-8.00m BGL.	oit PRAIRIE_AUK_TP181. 3.00m BGL derived from
All din	All dimensions in metres For expla						Checked by:	Logged by: K. Russell-Clamp	Contract No. 4251

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#### **BOREHOLE RECORD**

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works Location: Client: PRAIRIE\_AUK\_BH107 South Tees Development Corporation E:454402.534 N:521065.535 Ground Level (m): 10.158 Start Date: 24/04/2020 Method (Equipment): Cable Percussion (Dando 2000) 2 of 2 **SAMPLES & TESTS** STRATA Instrument/ Backfill Reduced Level Depth (Thickness Description Depth 8.00-8.45 U14 (100) Firm to stiff red brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, ō mudstone and siltstone. (continued) 8.45 J15 Very weak red brown MUDSTONE with bands of white gypsum. 9.00-9.45 9.00-9.45 SJ16 B17 (0.80) 100/40mm 0.66 Complete at 9.50m BGL.

Borin	g Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	r Added General	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To Duration (hh:mm)		From - To	Remarks	
24/04/2020	9.50	8.80	200	Dry	8.70 - 9.00	1:00		(1) Description derived from (2) Advanced through trial p Descriptions between 0.00-PRAIRIE_AUK_TP181. (3) 50mm diameter slotted s 4.00-8.00m BGL.	oit PRAIRIE_AUK_TP181. 3.00m BGL derived from
All din	nensions i Scale 1:5				nation of symbo		Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>

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#### **BOREHOLE RECORD**

PRELIM3

Project:	Prairie Site Ground Inve	Explora	tory Hole	No.			
Client:	South Tees Development Corporation	RAIRIE_	_AUK_	BH1			
Method (Ed	quipment): Percussion/Rotary (Dando 2000/Comacchio Geo 30	)5)	Ground Level (m): 8.863	Start Date: 15/04/2020	Sheet:	1 of 2	

SAMF	PLES & T	ESTS					STRATA	ti =
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
						(0.60)	MADE GROUND (Black gravelly fine to coarse sand. Gravel is fine to coarse subangular and includes ash, macadam, concrete).	©\$
				8.26 8.06		0.60	MADE GROUND (Concrete/slag).	
				8.06		- 0.80	Firm orange brown mottled grey slightly sandy CLAY.	
						<u> -</u>  -  -	3, 3, 7,	2
						(1.70)		
						<u> </u>		
						-		
						[		
2.50	ES1			6.36	<del>x · x</del>	2.50	Firm laminated red dark brown sandy silty CLAY. Sand is fine to	
2.50-2.95 2.50	U2 PID	(75) <0.1ppm			× -× -	}_	medium.	
2.95	J3	~0.1ppiii			X .X .	1		<b>XX X</b>
2.00					× _ × _	]		
					× ×-	-		
3.50-3.95 3.50-3.95	SJ4 B5	N13			XX_	(2.30)		
3.50-3.95	B3				× ×	1		l°4-
4.00	J6				<u>* -                                   </u>	-		
4.50-4.95	U7	(00)				1		
4.50-4.95	07	(90)		4.06	X X	4.80		
4.05					<u>×o×</u>	£	Firm laminated red dark brown sandy slightly gravelly silty CLAY.	
4.95 5.00	J8 J9				<u>* ~ ~ ~ </u>	1	Sand is fine to medium. Gravel is fine to medium subrounded and includes sandstone, mudstone and limestone.	
					×_ ×_	(1.00)		
5.50-5.95	B11				x	<u> </u>		°Z.
5.50-5.95	SJ10	N49		3.06		5.80	Stiff to very stiff dark brown slightly sandy gravelly CLAY. Gravel	
					<u> </u>	-	is fine to coarse subangular and includes sandstone, mudstone	
						{	and limestone.	
					- <u>^</u> -	<u> </u>		
6.50	J12					- (1.90)		
					<u>-                                    </u>	1.50)		
7.00-7.45	SJ13	N76				<b> </b>		
7.00-7.45	B14				<u> </u>	<u> </u>		
						[		
				1.16	<u></u>	7.70		-
						<u> </u>		

Borin	g Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	Gen	General	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Remarks		
15/04/2020	0.00	0.00	200					(1) Description derived fron (2) Advanced through trial I PRAIRIE_AUK_TP156A. D .00-4.50m BGI. derived fr PRAIRIE_AUK_TP156A. (3) 1No. 19mm diameter pi 1No. 50mm diameter slotte 6.00m and 10.00-14.00m B	oit escriptions between om ezometer standpipe and d standpipe installed to	
All din	nensions ii Scale 1:5				nation of symbo		Checked by:	Logged by: J. Myall	Contract No. 4251	

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

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#### **BOREHOLE RECORD**

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_BH108 South Tees Development Corporation E:454619.192 N:521200.662 Method (Equipment):
Percussion/Rotary (Dando 2000/Comacchio Geo 305) Ground Level (m): 8.863 Start Date: 15/04/2020 2 of 2 **SAMPLES & TESTS** STRATA Instrument/ Backfill Depth Thickness Reduced Description Depth Level 8.00 J15 Extremely weak thinly laminated grey MUDSTONE destructured with many interlaminations of extremely weak gypsum. (Recovered as clayey slightly sandy gravel). (continued) 8.50-8.95 8.50-8.95 SJ16 B17 100/55mm (1.80)9.00 9.00-9.45 SJ18 B19 100/40mm -0.64 9.50 Boring complete at 9.50m BGL - continued by rotary drilling.

Borir	Boring Progress and Water Observations					elling	Water Added	General	
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To Duration From - To Remar			ırks	
15/04/2020	9.50	8.80	200	Dry	8.70 - 9.00	1:00		(1) Description derived from (2) Advanced through trial PRAIRIE_AUK_TP156A. D .00-4.50 BGL derived fr PRAIRIE_AUK_TP156A. (3) 1No. 19mm diameter pi 1No. 50mm diameter slotte 6.00m and 10.00-14.00m E	pit escriptions between om ezometer standpipe and d standpipe installed to
All dir	nensions ii Scale 1:5				nation of symbols and tions see Key Sheets		Checked by:	Logged by: J. Myall	Contract No. <b>4251</b>

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R0

Tel: 0191 387 4700 Fax: 0191 387 4710

#### **DRILLHOLE RECORD**

PRELIM3

**Exploratory Hole No.** Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_BH108 South Tees Development Corporation E:454619.192 N:521200.662 Method (Equipment):
Percussion/Rotary (Dando 2000/Comacchio Geo 305) Start Date: 8.863 15/04/2020 1 of 3 **RUN DETAILS** STRATA Instrument/ Backfill Fracture Index Description Depth & (Core Ø) TCR Water Depth (Thicknes Reduced (SCR) RQD Legend Discontinuity Detail 0 (0) 0 NR 9.50 9.50 9.50-11.00m ... no recovery. (1) Red MUDSTONE. (Driller describes as 'very weak' and broken down). (92mm) 10.00 (0) (1.50)000 10.50 000 (0) 0 00 (92mm) 0000 11.00 11.00 NI 11.00-11.45m ... non-intact. Extremely weak red brown 0000 (35) 18 MUDSTÓNE residual. (Recovered as sandy clay). (0.45) 0000 0000 11.45 (92mm) 12 11.45-11.80m ... horizontal to subhorizontal (0-10 Medium strong to strong red brown degrees) closely to very closely spaced undulating rough stained (brown) discontinuities. MUDSTONE partially weathered to unweathered with many interbeds of gypsum. NR 11.80-12.00m ... no recovery. 12.00 100 (55) 44 12.00-12.30m ... horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (brown) discontinuities. 000 NI 12.30-12.86m ... non-intact. (92mm) 0000 (2.15)00000 12.86-13.60m ... horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (brown) discontinuities. 12 13.00 (52) 52

Drilling Progress and Water Observations			Standa	ard Pene	tration Test	Flush			General		
Date	Depth	Casing	Water Standir		Depth Type Result		From - To	Туре	Returns (%)	Rer	narks
04/05/2020	9.50	9.00	Dry				9.50 - 10.00 10.00 - 10.50 10.50 - 11.00 11.00 - 12.00 12.00 - 13.00 13.00 - 14.00	W W W W	50 50 50 50 50 50 100	(1) Description derived fi (2) Advanced through tri PRAIRIE AUK_TP156A 0.00-4.50m BGL derivec PRAIRIE_AUK_TP156A (3) 1No. 19mm diameter and 1No. 50mm diameter installed to 6.00m and 10 respectively.	al pit . Descriptions between from . piezometer standpipe er slotted standpipe
All dimensions in metres For explanation of sym						tion of svr	mbols and	Chec	ked by:	Logged by:	Contract No.

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### **DRILLHOLE RECORD**

PRELIM3

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Project:	Prairie Site Ground				Ground Inve	estigation Wo	orks			Exploratory H	ole No.		
Client:	So	outh Te	ees D	evelopr	nent Co	rporation		Location:	E:454619.192 N	·521200 66	<b>PF</b>	RAIRIE_AU	<b>C_BH1</b>
Method (	Equipme Perc	nt): ussion	/Rota	ıry (Dan	ido 2000	)/Comaco	chio Geo 30		Ground Level (m): 8.863		Start Date: 15/04/2020	Sheet: 2 of 3	
RUN	DETA	ILS							STRATA				t/
Depth	TCR (SCR) RQD	ture	ter	Reduced		Depth			Des	scription			Instrument/ Backfill
(Core Ø)	RQD	Fracture Index	Water	Level	Legend	(Thickness)		Discontinuity	Detail		Main		1
(92mm)		NR		-4.74 -5.14		13.60 - -(0.40) - 14.00	13.60-14.00m	a no recovery.		gypsum	MARL/SAND		

Drilling	g Progress and	l Water Observ	vations	Standa	ard Pene	tration Test		Flush		General		
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To	Туре	Returns (%)	Rer	narks	
04/05/2020	14.00	11.00	10.86							(1) Description derived f (2) Advanced through tr PRAIRIE_AUK_TP156A 0.00-4.50m BGL derived PRAIRIE_AUK_TP156A (3) 1No. 19mm diamete and 1No. 50mm diamete installed to 6.00m and 1 respectively.	Descriptions between I from . piezometer standpipe er slotted standpipe	
All din			tion of syr ns see Ke	nbols and y Sheets	Chec	ked by:	Logged by: J. Myall	Contract No. <b>4251</b>				

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 909

### **DRILLHOLE RECORD**

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_BH108 South Tees Development Corporation E:454619.192 N:521200.662

Start Date: 15/04/2020 Method (Equipment):
Percussion/Rotary (Dando 2000/Comacchio Geo 305) Ground Level (m): 8.863 3 of 3

> Figure PRAIRIE\_AUK\_BH108.1 9.00-13.00m BGL



Figure PRAIRIE\_AUK\_BH108.2 13.00-14.00m BGL



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#### **BOREHOLE RECORD**

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_BH109 South Tees Development Corporation E:454511.473 N:520862.590 Method (Equipment):
Percussion/Rotary (Dando 2000/Boart Longyear DB540) Start Date: 23/04/2020 Ground Level (m): 12.085 1 of 1

SAMPL Depth	LES & T	ESTS					STRATA	£
Donth					ı		J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	— <u>Б</u> ≣
Берит	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/
				11.69		(0.40)	MADE GROUND (Dark brown sandy topsoil with some rootlets).	DA
0.30 0.50 0.50 0.50 0.50-1.00 1.00	J1 ES2 J3 PID B4 ES5	2.9ppm				(0.80)	MADE GROUND (Firm to stiff orange brown mottled grey and black slightly sandy clay. Strong hydrocarbon odour noted). (Possibly Natural Ground).	
1.00 1.20-1.65	PID U6	12.8ppm (75)		10.89	××××	1.20	Firm indistinctly laminated grey brown sandy slightly gravelly CLAY. Gravel is firm to coarse subangular to subrounded and	
1.65 1.70 1.70 2.00-2.45 2.00-2.45	J7 ES8 PID SJ9 B10	27.6ppm N15		9.79		- (1.10) - - - - 2.30		
2.50 2.50 2.50	ES11 J12 PID	10.8ppm				- - - - - - -	Firm thinly laminated brown slightly sandy CLAY with fine yellow brown sandy on the laminae.	
3.00-3.45	U13	(60)				-		
3.45 3.50 3.50	J14 ES15 PID	26.1ppm				[(2.50)		
4.00-4.45 4.00-4.45	SJ16 B17	N21				- - - -		
4.50	J18			7.29		4.80		
5.00-5.45	U19	(90)		6.79	→× —:	(0.50) 5.30	(1) Firm to stiff laminated red brown silty CLAY.	
5.45 5.50-5.80	J20 B21			6.29				
6.00-6.45 6.00-6.45	SJ22 B23	100/110mm				(1.00)	Very weak dark blue grey MUDSTONE.	
6.50	SJ24	100/45mm		5.28		6.80		
							Boring complete at 6.80m BGL - continued by rotary drilling.	
						-		

Borin	ng Progres	s and Wat	er Observa	itions	Chise	elling	Water Added	Gen	eral
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Rem	arks
23/04/2020 23/04/2020	0.00 6.80	0.00 5.80	200 200	Dry	6.20 - 6.50	1:00		(1) Description derived from (2) Advanced adjacent to tr PRAIRIE_AUK_TP175. (3) 50mm diameter slotted to between 7.80-11.80m BGL.	ial pit standpipe installed
All din	All dimensions in metres For explain Scale 1:50 abbrevia						Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### **DRILLHOLE RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_BH109 South Tees Development Corporation E:454511.473 N:520862.590 Ground Level (m): 12.085 Method (Equipment):
Percussion/Rotary (Dando 2000/Boart Longyear DB540) Start Date: 23/04/2020 1 of 3 **RUN DETAILS STRATA** Instrument/ Backfill Fracture Index Description Depth & (Core Ø) Water Depth (Thicknes Reduced (SCR) RQD Legend Discontinuity Detail (0) 0 NR 6.80 5.28 6.80 6.80-7.30m ... no recovery Weak locally medium strong dark blue grey MUDSTONE distinctly weathered (140mm) locally destructured. 7.30 15 100 (10) 0 7.30-7.55m ... non-intact. 7.30-8.70m ... horizontal to subhorizontal (0-10 degrees) closely to very closely spaced planar to undulating smooth locally stained (grey) discontinuities. 7.64-7.68m ... non-intact (1.90)7.70-7.85m ... non-intact. 7.80 (50) 10  $7.95\text{--}8.22m\dots$  1No. vertical (85 degrees) undulating smooth stained (grey) discontinuity. (140mm) 8.22-8.35m ... non-intact. 0 8.35-8.42m ... 1No. subvertical (80 degrees) planar smooth stained (grey) discontinuity. 0 8.52-8.65m ... 2No. subvertical (80 degrees) extremely closely spaced planar smooth discontinuities. 3.39 8.70 00 8.70-8.90m ... 1No. vertical (85 degrees) planar locally undulating rough stained (grey) discontinuity.
8.70-9.90m ... horizontal to subhorizontal (0-10 degrees) medium locally closely spaced planar locally undulating rough locally smeared (clay) and stained Medium strong light grey SILTSTONE unweathered locally partially 8.80 0 weathered. 0 9.38-9.54m ... 1No. vertical (85 degrees) planar rough open stained (grey) discontinuity. (140mm) 9.83-9.90m ... 1No. subvertical (80 degrees) planar rough stained (red brown) discontinuity. 9.90-10.80m ... no recovery. NR (3.10)10.30 10.80

Drilling	g Progress and	l Water Obser	vations	Standa	ard Pene	tration Test		Flush		General Remarks		
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To	Туре	Returns (%)			
30/04/2020	6.80	6.80	Dry				6.80 - 7.30 7.30 - 7.80 7.80 - 8.80 8.80 - 10.30 10.30 - 10.80 10.80 - 11.80	Water Water Water Water Water Water	80 80 80 80 80	(1) Description derived f (2) Advanced adjacent t PRAIRIE_AUK_TP175. (3) 50mm diameter slott between 7.80-11.80m B	ed standpipe installed	
All din	nensions i	n metres		For e	xplana	tion of syr	mbols and		ked by:	Logged by:	Contract No.	

All dimensions in metres
Scale 1:25

For explanation of symbols and abbreviations see Key Sheets

Checked by:
Logged by:
K. Russell-Clamp
4251

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#### **DRILLHOLE RECORD**

PRELIM3

Project:					Pra	irie Site G	Fround Inve	stigation Wor	·ks			Explora	tory Hol	e No.	
Client:	Sc	outh Te	ees D	evelopr	nent Co	rporation		Location:	::454511.473 N:5	20862 500	<b>P</b> I	RAIRIE_	_AUK	_BH10	19
Method (	Equipme Percu	quipment): Percussion/Rotary (Dando 2000/Boart Longyear					ngyear DB5		Ground Level (m): 12.085	;	Start Date: 23/04/2020	Sheet:	2 of 3		
RUN	DETA	DETAILS							STRATA			1			
Depth	TCR (SCR)								Desci	ription				Instrument/ Backfill	
(Core Ø)		(SCR) Thickness A Reduced Level Legend (Thickness)						Discontinuity Detail				in			
(140mm)	(SCR) (SCR) (Thickness) (Thickness) (Thickness) (Thickness) (Thickness) (Thickness) (Thickness) (SCR) (Thickness) (Thickness) (SCR) (Thickness) (Thickness) (SCR) (Thickness) (Thickness) (SCR) (Thickness) (Thic				degrees) medi undulating rou (grey) discontir 10.85-11.05m	horizontal to suium locally closely igh locally smeare nuities 1No. subvertica ing rough smooth tinuity.	strong light lered locally ed. (continue	partially ed)							

Drilling	Drilling Progress and Water Observations				ard Pene	tration Test		Flush		General		
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To	Туре	Returns (%)	Ren	narks	
30/04/2020	11.80	6.80	9.37							(1) Description derived fr (2) Advanced adjacent to PRAIRIE_AUK_TP175. (3) 50mm diameter slotte between 7.80-11.80m BC	d standpipe installed	
All dir	All dimensions in metres Scale 1:25					tion of syr ns see Ke	nbols and by Sheets	Chec	ked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>	

K. Russell-Clamp Scale 1:25 abbreviations see Key Sheets

Print Date and Time: 01/07/2020 08:40:33

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 rel: 01772 735 300 Fax: 01772 735 999

#### **DRILLHOLE RECORD**

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_BH109 South Tees Development Corporation E:454511.473 N:520862.590

Start Date: 23/04/2020 Method (Equipment):
Percussion/Rotary (Dando 2000/Boart Longyear DB540) Ground Level (m): 12.085 3 of 3

# Figure PRAIRIE\_AUK\_BH109.1 6.80-8.80m BGL



#### Figure PRAIRIE AUK BH109.2 8.80-11.80m BGL



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL



#### **BOREHOLE RECORD**

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_BH110 South Tees Development Corporation E:454320.946 N:521308.856 Start Date: 20/04/2020 Method (Equipment):
Percussion/Rotary (Dando 2000/Comacchio Geo 305) Ground Level (m): 7.798 1 of 2

SAMP	LES & T	ESTS					STRATA	ent/
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/ Backfill
						(1.50)	MADE GROUND (Black sand and gravel with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse subangular and includes slag, coke and clinker. Cobbles are subangular and include concrete, slag and brick. Slag content is 0-25%. Slag is vesicular grey green.	
				6.30		1.50	Firm indistinctly laminated orange brown mottled grey slightly sandy CLAY.	
3.00 3.00-3.45 3.00 3.45	ES1 U2 PID J3	(35) <0.1ppm		4.00		-	Firm thinly laminated brown slightly sandy CLAY with fine yellow brown sand on the laminae.	
4.00 4.00-4.45	J4 B5			2.80		(2.00) - - - - - - - - - - - - - - - - - -		
5.00-5.45	U6	(45)		2.00	<del></del>	- - - -	Soft to firm thinly laminated dark brown slightly sandy CLAY with fine yellow brown sand on the laminae.	
5.45	J7					- - - - -		
6.00	J8							
6.50-6.95 6.50-6.95	SJ9 B10	N13		0.50		- - - - - - - - - - - - - - - - - - -		
7.50	J11					- - - - - -	Firm to stiff red brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, mudstone, siltstone and coal.	

Borin	g Progres	s and Wat	er Observa	itions	Chis	elling	Water Added	Gen	eral
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To	Duration (hh:mm)	From - To	Rem	arks
20/04/2020 20/04/2020 21/04/2020	0.00 5.00 5.00	0.00 4.80 4.80	200 200 200	Dry 4.36				(1) Description derived fron (2) Advanced through trial poscriptions between 0.09 PRAIRIE_AUK_TP149. (3) Water strike at 10.30m BGL (20 mins). (4) 50mm diameter standpi 16.80-20.80m BGL.	oit PRAIRIE_AUK_TP149. 3.00m BGL derived from water level rose to 8.47m
All din	nensions ii Scale 1:5			For expla	nation of symbo tions see Key S	ols and heets	Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

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#### **BOREHOLE RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works

Exploratory Hole No.

Client: South Tees Development Corporation

E:454320.946 N:521308.856

Method (Equipment): Ground Level (m): Start Date: 20/04/2020

Percussion/Rotary (Dando 2000/Comacchio Geo 305)

Ground Level (m): Start Date: 20/04/2020

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Sheet: 20 of 2

SAMP	LES & T	FSTS					STRATA	Τ.	=
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	Instrument/	Backfill
8.00-8.45 8.45	U12 J13	(75)	<b>1</b> <u>→</u>			- (2.00) - - -	Firm to stiff red brown slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, mudstone, siltstone and coal. <i>(continued)</i>		
9.00	J14			-1.50		9.30			
9.50-9.95 9.50-9.95	SJ15 B16	N59	1			- - - - - - - -	Stiff to very stiff (friable) red brown sandy slightly gravelly CLAY. Gravel is fine to coarse subangular to subrounded and includes sandstone, mudstone, siltstone and coal.		
10.50	J17		÷			- - - (2.90)			
11.00-11.45	U18	(100)				<del>-</del>  -  -  -			
11.45	J19					- - - - -			
12.00	J20			-4.40	<u> </u>		Stiff to very stiff dark red brown sandy gravelly CLAY. Gravel is		
12.50-12.95 12.50-12.95	SJ21 B22	N98		-5.20		(0.80) - - 13.00	fine to coarse subangular and includes sandstone, mudstone, and siltstone.		
13.50	J23			-5.20	<u> </u>	- - - - - - - - - - - - - - - - - - -	Stiff (friable) dark red brown sandy slightly gravelly CLAY with cobbles noted. Gravel is fine to coarse subangular and includes sandstone, mudstone and siltstone. Cobbles are subangular and includes sandstone and mudstone.		
14.00-14.45 14.00	B25 SJ24	100/220mm		-6.60	  	- - - - - 14.40			
14.50	J26					- - -	Very weak red brown MUDSTONE destructured with interbeds of gypsum.		
15.00-15.45 15.00	B28 SJ27	100/70mm				(1.40)			
15.50	SJ29	100/50mm		-8.00		15.80			
15.80-16.30	C30					_	Boring complete at 15.80m BGL - continued by rotary drilling.		

Boring Progress and Water Observations					Chise	elling	Water Added	Gen	eral
Date	Depth	Casing	Casing Dia (mm)	Water Standing	From - To Duration (hh:mm)		From - To	Remarks	
21/04/2020 22/04/2020 22/04/2020	13.00 13.00 15.80	12.80 12.80 15.30	200 200 200	Dry 6.74 7.39	13.00 - 15.50 6:00			(1) Description derived from (2) Advanced through trial properties between 0.00 PRAIRIE_AUK_TP149. (3) Water strike at 10.30m - BGL (20 mins). (4) 50mm diameter standpig 16.80-20.80m BGL.	oit PRAIRIE_AUK_TP149. 3.00m BGL derived from water level rose to 8.47m
All din	nensions ii Scale 1:5			For expla	nation of symbols and tions see Key Sheets		Checked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

#### **DRILLHOLE RECORD**

PRELIM3

**Exploratory Hole No.** Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_BH110 South Tees Development Corporation E:454320.946 N:521308.856 Method (Equipment):
Percussion/Rotary (Dando 2000/Comacchio Geo 305) Ground Level (m): 7.798 Start Date: 20/04/2020 1 of 3 **RUN DETAILS** STRATA Instrument/ Backfill Fracture Index Description Depth & (Core Ø) TCR Water Depth (Thicknes Reduced (SCR) RQD Legend Discontinuity Detail 0 (0) 0 (1) Red MUDSTONE/SANDSTONE. NR 15.80 -8.00 15.80 15.80-17.00m ... no recovery. (Driller describes as 'very weak'). (92mm) 16.30 0 (0) 0 (1.20)16.80 0 (32) 21 17.00 0 10 17.00-17.07m ... non-intact. 17.00-17.60m ... horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating Moderately weak to strong red brown MUDSTONE partially weathered, locally destructured, with many rough stained (red brown) discontinuities. 17.07-17.20m ... 1No. subvertical (80 degrees) undulating rough stained (red brown) discontinuity. (92mm) interbeds of gypsum. 17.20-17.35m ... non-intact. NII 17.60-17.90m ... non-intact. 17.80 10 17.90-18.40m ... horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities. 17.96-18.07m ... non-intact. 18.14-18.30m ... 1No. subvertical (80 degrees) planar smooth closed stained (red brown) discontinuity. NI 18.40-18.70m ... non-intact. (92mm) 18.70-18.80m ... 1No. subvertical (80 degrees) planar smooth open stained (red brown) discontinuity. 18.70-19.30m ... horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities. 18.80-18.95m ... non-intact. 10 (3.80) 19.30 19.30-19.80m ... no recovery. (35) 27

Drilling Progress and Water Observations			Standard Penetration Test				Flush		General	
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To	Туре	Returns (%)	Remarks
01/05/2020 01/05/2020 04/05/2020	15.80 19.30 19.30	15.80 15.80 15.80	14.28 12.37				15.80 - 16.30 16.30 - 16.80 16.80 - 17.80 17.80 - 19.30 19.30 - 20.80	W W W W	100 100 100 100 100	(1) Description derived from drillers daily report. (2) Advanced through trial pit PRAIRIE_AUK_TP149. Descriptions between 0.00-3.00m BGL derived from PRAIRIE_AUK_TP149. (3) Water strike at 10.30m - water level rose to 8.47m BGL (20 mins). (4) 50mm diameter standpipe installed between 16.80-20.80m BGL.

All dimensions in metres Scale 1:25 For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: K. Russell-Clam	Contract No. 4251
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Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RC

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### **DRILLHOLE RECORD**

PRELIM3

South Tees Development Corporation  E:454320.946 N:521308.856    Ground Level (m): 7.798   Start Date: 20/04/2020   Start	Project:					Pra	irie Site C	Ground Inves	tigation V	Vorks	S			Explora	atory Hol	le No.
RUN DETAILS    Depth (SCR) (SCR) (ROD   Depth (ROD   Dept										E:454320.946 N:521308.856					_BH1	
Depth (SCR) (SCR) (SCR) (Popular Core Ø)   Depth (Popular Core Ø)   D	Method (	Percussion/Rotary (Dando 2000/Comacchio Geo 3							5)	G				Sheet:	2 of 3	
19.80-20.06m non-intact. 19.80-20.80m horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities.  19.80-20.80m horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities.  20.13-20.20m 1No. oblique (30 degrees) undulating rough open stained (red brown) discontinuity.  20.62-20.72m non-intact.	RUN	I DETA	ILS							S	STRATA	•	ant/			
19.80-20.06m non-intact. 19.80-20.80m horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities.  19.80-20.80m horizontal to subhorizontal (0-10 degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities.  20.13-20.20m 1No. oblique (30 degrees) undulating rough open stained (red brown) discontinuity.  20.62-20.72m non-intact.	&	TCR (SCR)	cture	ater		Legend					Desc	ription				
degrees) closely to very closely spaced undulating rough stained (red brown) discontinuities.  20.13-20.20m 1No. oblique (30 degrees) undulating rough open stained (red brown) discontinuity.  20.62-20.72m non-intact.	Core Ø)	RQD		>	Level		(TIICKITESS)			ity Det	tail	Madara			hraum	1
Complete at 20.80m BGL.	(92mm)		10		-13.00		20.80	19.80-20.80m degrees) closely rough stained (r 20.13-20.20m rough open stai	horizontal to y to very clos red brown) dia 1No. obliqu ined (red brov	sely spa iscontir ue (30 d	aced undulating nuities. degrees) undulating	MUDST locally of interbed	FONE partial destructured, ds of gypsum	ly weathere with many n. (continue	ed,	
Drilling Progress and Water Observations Standard Penetration Test Flush		rilling Pro	aress on	nd Wate	r Oheerva	tions	Standa	rd Penetration To	est		Flueh					

Drilling	Progress and	Water Observ	vations	Standa	Standard Penetration Test			Flush		General	
Date	Depth	Casing	Water Standing	Depth	Туре	Result	From - To Type Returns (%)			narks	
04/05/2020	20.80	15.80	15.20							(1) Description derived fr (2) Advanced through tri PRAIRIE AUK TP149. It 0.00-3.00m BGL derived PRAIRIE_AUK_TP149. (3) Water strike at 10.30 8.47m BGL (20 mins). (4) 50mm diameter stand 16.80-20.80m BGL.	Descriptions between from m - water level rose to
All din	nensions ii Scale 1:2			For explanation of syn abbreviations see Ke				Chec	ked by:	Logged by: K. Russell-Clamp	Contract No. <b>4251</b>

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 909

### **DRILLHOLE RECORD**

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_BH110 South Tees Development Corporation E:454320.946 N:521308.856

Start Date: 20/04/2020 Method (Equipment):
Percussion/Rotary (Dando 2000/Comacchio Geo 305) 3 of 3

# Figure PRAIRIE\_AUK\_BH110.1 15.80-19.30m BGL



# Figure PRAIRIE\_AUK\_BH110.2 19.30-20.80m BGL



**Trial Pit Records** 



# **Trial Pit Summary Table**

Exploratory Hole Number	Excavation Method	Completion Depth (m BGL)	Remarks
PRAIRIE_AUK_TP101	Machine excavated	4.50	Advanced to required depth.
PRAIRIE_AUK_TP102	Machine excavated	4.30	Advanced to required depth
PRAIRIE_AUK_TP103	Machine excavated	1.70	Terminated due to close proximity to sewer.
PRAIRIE_AUK_TP104	Machine excavated	4.00	Advanced to required depth.
PRAIRIE_AUK_TP105	Machine excavated	4.40	Continued as PRAIRIE_AUK_BH104. Terminated due to slow progress.
PRAIRIE_AUK_TP106	Machine excavated	3.50	Advanced to required depth.
PRAIRIE_AUK_TP107	Machine excavated	3.00	Continued as BH103. Advanced to required depth.
PRAIRIE_AUK_TP108	Machine excavated	4.00	Terminated due to possible concrete.
PRAIRIE_AUK_TP109	Machine excavated	3.10	Advanced to required depth.
PRAIRIE_AUK_TP110	Machine excavated	4.50	Advanced to required depth.
PRAIRIE_AUK_TP111	Machine excavated	3.20	Advanced to required depth.
PRAIRIE_AUK_TP112	Machine excavated	3.40	Advanced to required depth.
PRAIRIE_AUK_TP113	Machine excavated	3.80	Terminated due to concrete plinth and groundwater ingress.
PRAIRIE_AUK_TP114	Machine excavated	2.00	Terminated due to water ingress and instability.
PRAIRIE_AUK_TP115	Machine excavated	3.10	Terminated due to water ingress.
PRAIRIE_AUK_TP116	Machine excavated	3.90	Advanced to required depth.
PRAIRIE_AUK_TP117	Machine excavated	3.30	Terminated due to instability.
PRAIRIE_AUK_TP118	Machine excavated	3.00	Advanced to required depth.
PRAIRIE_AUK_TP119	Machine excavated	3.20	Advanced to required depth.
PRAIRIE_AUK_TP120	Machine excavated	1.50	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP120A	Machine excavated	2.90	Advanced to required depth.
PRAIRIE_AUK_TP121	Machine excavated	4.50	Continued as PRAIRIE_AUK_BH102.
PRAIRIE_AUK_TP122	Machine excavated	1.20	Terminated due to fast water ingress.
PRAIRIE_AUK_TP123	Machine excavated	2.80	Terminated due to brick structure.
PRAIRIE_AUK_TP124	Machine excavated	3.00	Advanced to required depth.
PRAIRIE_AUK_TP125	Machine excavated	0.20	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP125A	Machine excavated	1.20	Terminated due to concrete base.
PRAIRIE_AUK_TP126	Machine excavated	2.70	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP127	Machine excavated	1.70	Terminated due to concrete
PRAIRIE_AUK_TP127A	Machine excavated	3.00	Continued as PRAIRIE_AUK_BH101.
PRAIRIE_AUK_TP128	Machine excavated	1.10	Terminated due to services.



Exploratory Hole Number	Excavation Method	Completion Depth (m BGL)	Remarks
PRAIRIE_AUK_TP129	Machine excavated	2.30	Advanced to required depth.
PRAIRIE_AUK_TP130	Machine excavated	2.40	Advanced to required depth.
PRAIRIE_AUK_TP131	Machine excavated	4.50	Continued as PRAIRIE_AUK_BH106.
PRAIRIE_AUK_TP132	Machine excavated	2.30	Terminated due to concrete channel.
PRAIRIE_AUK_TP132A	Machine excavated	1.60	Terminated due to concrete structure and metal cables.
PRAIRIE_AUK_TP133	Machine excavated	2.00	Advanced to required depth.
PRAIRIE_AUK_TP134	Machine excavated	2.60	Advanced to required depth.
PRAIRIE_AUK_TP135	Machine excavated	3.00	Continued as PRAIRIE_AUK_BH105.
PRAIRIE_AUK_TP136	Machine excavated	3.10	Advanced to required depth.
PRAIRIE_AUK_TP137	Machine excavated	2.90	Advanced to required depth.
PRAIRIE_AUK_TP138	Machine excavated	2.60	Terminated due to instability.
PRAIRIE_AUK_TP139	Machine excavated	1.20	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP139A	Machine excavated	0.30	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP139B	Machine excavated	4.00	Advanced to required depth.
PRAIRIE_AUK_TP140	Machine excavated	2.60	Advanced to required depth.
PRAIRIE_AUK_TP141	Machine excavated	3.00	Terminated due to concrete.
PRAIRIE_AUK_TP142	Machine excavated	1.70	Terminated due to concrete.
PRAIRIE_AUK_TP143	Machine excavated	1.80	Terminated due to water ingress.
PRAIRIE_AUK_TP144	Machine excavated	1.20	Terminated due to concrete base.
PRAIRIE_AUK_TP145	Machine excavated	3.50	Advanced to required depth.
PRAIRIE_AUK_TP146	Machine excavated	0.30	Terminated due to concrete.
PRAIRIE_AUK_TP146A	Machine excavated	0.10	Terminated due to concrete.
PRAIRIE_AUK_TP146B	Machine excavated	0.60	Terminated due to concrete.
PRAIRIE_AUK_TP146C	Machine excavated	3.00	Advanced to required depth.
PRAIRIE_AUK_TP147	Machine excavated	1.80	Terminated due to concrete.
PRAIRIE_AUK_TP148	Machine excavated	1.20	Terminated due to concrete.
PRAIRIE_AUK_TP148A	Machine excavated	2.00	Terminated due to concrete/slag.
PRAIRIE_AUK_TP149	Machine excavated	3.00	Continued as PRAIRIE_AUK_BH110.
PRAIRIE_AUK_TP150	Machine excavated	2.20	Terminated due to service.
PRAIRIE_AUK_TP151	Machine excavated	4.20	Advanced to required depth.
PRAIRIE_AUK_TP152	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP153	Machine excavated	2.40	Advanced to required depth.



Exploratory Hole Number	Excavation Method	Completion Depth (m BGL)	Remarks
PRAIRIE_AUK_TP154	Machine excavated	3.10	Advanced to required depth.
PRAIRIE_AUK_TP155	Machine excavated	2.20	Terminated due to concrete.
PRAIRIE_AUK_TP156	Machine excavated	0.60	Advanced to required depth.
PRAIRIE_AUK_TP156A	Machine excavated	2.50	Continued as PRAIRIE_AUK_BH108.
PRAIRIE_AUK_TP157	Machine excavated	1.10	Terminated due to concrete.
PRAIRIE_AUK_TP157A	Machine excavated	1.30	Terminated due to concrete.
PRAIRIE_AUK_TP157B	Machine excavated	3.50	Terminated due to concrete boulders.
PRAIRIE_AUK_TP158	Machine excavated	3.20	Advanced to required depth.
PRAIRIE_AUK_TP159	Machine excavated	2.50	Advanced to required depth.
PRAIRIE_AUK_TP160	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP161	Machine excavated	2.70	Advanced to required depth.
PRAIRIE_AUK_TP162	Machine excavated	4.00	Advanced to required depth.
PRAIRIE_AUK_TP163	Machine excavated	2.40	Advanced to required depth.
PRAIRIE_AUK_TP164	Machine excavated	3.80	Advanced to required depth.
PRAIRIE_AUK_TP165	Machine excavated	3.30	Advanced to required depth.
PRAIRIE_AUK_TP166	Machine excavated	1.50	Advanced to required depth.
PRAIRIE_AUK_TP167	Machine excavated	2.60	Advanced to required depth.
PRAIRIE_AUK_TP168	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP169	Machine excavated	2.20	Advanced to required depth.
PRAIRIE_AUK_TP170	Machine excavated	1.80	Advanced to required depth.
PRAIRIE_AUK_TP171	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP172	Machine excavated	2.10	Terminated due to instability and concrete obstruction.
PRAIRIE_AUK_TP173	Machine excavated	2.70	Advanced to required depth.
PRAIRIE_AUK_TP174	Machine excavated	2.60	Advanced to required depth.
PRAIRIE_AUK_TP175	Machine excavated	4.50	Advanced to required depth.
PRAIRIE_AUK_TP176	Machine excavated	2.00	Continued as PRAIRIE_AUK_BH109.
PRAIRIE_AUK_TP177	Machine excavated	2.30	Terminated due to instability and proximity to services.
PRAIRIE_AUK_TP178	Machine excavated	4.50	Advanced to required depth.
PRAIRIE_AUK_TP179	Machine excavated	2.00	Advanced to required depth.
PRAIRIE_AUK_TP180	Machine excavated	0.40	Advanced to required depth.
PRAIRIE_AUK_TP181	Machine excavated	2.70	Advanced to required depth.
PRAIRIE_AUK_TP182	Machine excavated	2.70	Continued as PRAIRIE_AUK_BH107.



Exploratory Hole Number	Excavation Method	Completion Depth (m BGL)	Remarks
PRAIRIE_AUK_TP183	Machine excavated	4.10	Terminated due to concrete slab.
PRAIRIE_AUK_TP184	Machine excavated	1.10	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP185	Machine excavated	4.50	Advanced to required depth.
PRAIRIE_AUK_TP186	Machine excavated	1.80	Terminated due to concrete slab.
PRAIRIE_AUK_TP187	Machine excavated	1.80	Advanced to required depth.
PRAIRIE_AUK_TP188	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP189	Machine excavated	3.00	Advanced to required depth.
PRAIRIE_AUK_TP190	Machine excavated	1.00	Terminated due to possible service.
PRAIRIE_AUK_TP190A	Machine excavated	3.00	Advanced to required depth.
PRAIRIE_AUK_TP191	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP192	Machine excavated	2.10	Advanced to required depth.
PRAIRIE_AUK_TP193	Machine excavated	1.00	Advanced to required depth.
PRAIRIE_AUK_TP193A	Machine excavated	4.60	Advanced to required depth.
PRAIRIE_AUK_TP194A	Machine excavated	2.20	Advanced to required depth.
PRAIRIE_AUK_TP194B	Machine excavated	2.80	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP194C	Machine excavated	1.20	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP194D	Machine excavated	1.70	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP194E	Machine excavated	1.20	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP195	Machine excavated	2.10	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP196A	Machine excavated	2.00	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP196A	Machine excavated	2.90	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP197	Machine excavated	2.80	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP198	Machine excavated	2.60	Terminated due to concrete obstruction.
PRAIRIE_AUK_TP199	Machine excavated	5.20	Advanced to required depth.
PRAIRIE_AUK_TP200A	Machine excavated	2.80	Advanced to required depth.
PRAIRIE_AUK_TP200B	Machine excavated	3.50	Advanced to required depth.
PRAIRIE_AUK_TP201	Machine excavated	4.40	Advanced to required depth.



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RI

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#### TRIAL PIT RECORD

PRELIM3

								TICELINIS			
Project:		1	Prairie	Site Gr	ound Inv	estigatio	n Works		Exploratory Hole No.		
Client:	South Tee	es Development	Corpo	ration		Location	E:455044.456 N:521777.05	RAIRIE_AUK_TP10			
Method (Equipn	Method (Equipment): Machine Excavated (360 Tracked Excavator)						Ground Level (m): 8.864	Start Date: 01/04/2020	Sheet: 1 of 3		
SAN	MPLES &	TESTS					STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	D	escription			
0.10 0.20	J1 B2			8.56		0.30	MADE GROUND (Black sandy subangular to subrounded and	l includes roa	dstone and concrete).		
0.60	J3					-	MADE GROUND (Black gravel fragments of tile. Sand is fine to subangular and includes slag,	o coarse. Gra red brick and	avel is fine to coarse ash. Cobbles are		
0.90 1.00 1.00	B4 PID ES5	<0.1ppm				- (1.50) - - -	subangular and include slag. S vesicular grey green).	Slag content is	s 50-75%. Slag is		
1.80 1.80	HSV J6	68 (32)kPa		7.06 6.86		1.80	MADE GROUND (Firm grey m				
1.80 2.10 2.20 2.20 2.50	B7 J8 PID ES9 J10	<0.1ppm		6.56		2.30	MADE GROUND (Black slightl subangular to angular and incl content is 50-75%. Slag is grey Firm grey mottled brown slightl	udes ash, ma y green. Hydr	ncadam, and slag. Slag ocarbon odour noted).		
2.80 3.00	HSV B11	53 (22)kPa				- - - - - (2.00)					
3.50	J12					- - - - -					
4.00	B13			4.56		- - - 4.30					
4.40 4.40 4.50	HSV J14 B15	47 (18)kPa		4.36	<u></u> -	4.50 - - - - -	Firm grey black slightly sandy ( plant remains. Organic odour r Complete at 4.50m BGL.		any partially decomposed		
						-					
		PLAN					NDWATER lwater seepage at 2.00m BGL.				
		3.00 Face A			<b>1</b>						
Face D	Orientation Fig. 2.30 B			STABI Pit side	LITY s stable throughout excavation.						
		Face C			<b></b> ↓						
ADDITIONAL INFORMATION						GENE n/a	GENERAL REMARKS				
Sketch Dia	gram:	No S	ketch T	aken							
Photogra	phs:	Yes		See add shee							
	ensions in Scale 1:50			For expl abbrev	lanation iations s	of symbo	ls and Checked by:	Logged K. Russell-			

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

# TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: South Tees Development Corporation

PRAIRIE\_AUK\_TP101

E:455044.456 N:521777.057 Method (Equipment):
Machine Excavated (360 Tracked Excavator)

Start Date: 01/04/2020

2 of 3







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP101 South Tees Development Corporation

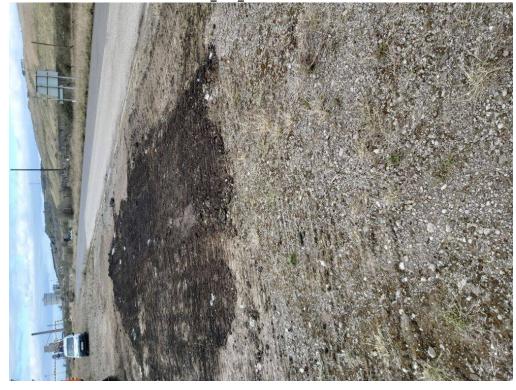
E:455044.456 N:521777.057 Start Date: 01/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3

Figure PRAIRIE\_AUK\_TP101.3 PRAIRIE\_AUK\_TP101 - Spoil



Figure PRAIRIE\_AUK\_TP101.4
PRAIRIE\_AUK\_TP101 - Reinstatement



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

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#### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works **Exploratory Hole No.** Client: Location: PRAIRIE\_AUK\_TP102 South Tees Development Corporation E:455025.690 N:521795.056 Method (Equipment) Start Date: Machine Excavated (360 Tracked Excavator) 8 634 21/04/2020 1 of 3 **SAMPLES & TESTS STRATA** Reduced Depth Depth Description MADE GROUND (Grass over topsoil). 0.10 0.20 0.30 MADE GROUND (Grey black sandy gravel with low cobble and boulder content. Gravel is fine to coarse subangular and includes 0.50 .13 ash and slag. Slag content is 75-100%. Slag is vesicular green white. 0.50 <0.1ppm (1.00)Cobbles and boulders are angular and include slag). FS4 1.00 1.00 B5 PID <0.1ppm MADE GROUND (Firm, locally thinly laminated, orange red brown mottled grey sandy slightly gravelly clay with fragments of wood. 1.50 1.50 Gravel is fine to coarse subangular and includes mudstone, cement 0.1ppm and slag). 2.00 2.00 2.00 ES7 B8 PID 0.1ppm 2.50 2.50 J9 PID between c. 2.50-3.50m BGL ... wet clay with rancid stale water odour 0.2ppm (3.00) 3.00 B10 3.00 3.00 **ES11** PID 0.4ppm 3.50 3.50 0.7ppm 4.00 B13 at c.4.00m BGL ... whole glass bottle. Complete at 4.30m BGL. **PLAN GROUNDWATER** No groundwater inflow observed. 2.80 Face A Face Face D Orientation .50 238° **STABILITY** Pit sides and base stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: Yes sheets. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: Contract No. All dimensions in metres K. Russell-Clamp 4251 Scale 1:50

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP102 South Tees Development Corporation E:455025.690 N:521795.056

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 21/04/2020 Ground Level (m): 8.634 2 of 3







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP102 South Tees Development Corporation E:455025.690 N:521795.056 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 21/04/2020 Ground Level (m): 8.634 3 of 3



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#### TRIAL PIT RECORD

Status:-

S		Exploratory Hole No.							
Project: Prairie Site Ground Inv							n Works		
Client: South Tees Development Corporation						Location	:	RAIRIE_AUK_TP10	
South Tees Development Corporation  Method (Equipment):							E:454951.742 N:521784.89 Ground Level (m):	55 Start Date:	Sheet:
Machine Excavated (360 Tracked Excavator)							7.692	21/04/2020	1 of 4
SAMPLES & TESTS							STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	1	Description	
0.50 0.50 0.80 1.00 1.50 1.50 1.70	J1 PID B2 ES3 PID J4 PID J5	<0.1ppm <0.1ppm <0.1ppm		5.99		1.70	MADE GROUND (Black brow boulder content. Gravel is fine and includes ash, macadam, content is 25-50%. Slag is very particles. Cobbles and boulde concrete, macadam and slag)  at c.1.70m BGL yellow brow Terminated at 1.70m BGL - du	e to coarse su concrete, slaç sicular grey gr ers are subanç ).	bangular to subrounded g, coal and coke. Slag een white with rust (iron) gular and include
		PLAN					INDWATER		
		3.10 Face A			<b>†</b>	No gro	undwater inflow observed.		
Face D	Orientation  Orientation  Orientation  Face C					STABI Face C	LITY Cunstable throughout excavation.		
	ΔΠΠΙ	IONAL INFORM	/ATIO	N		GENE	RAL REMARKS		
ADDITIONAL INFORMATION  Sketch Diagram: No Sketch Taken						JEINE	I CALINERIA		
Photographs: Yes See additional sheets.									
All dimensions in metres  Scale 1:50  For explanation of abbreviations se					lanation iations s	of symbo	ols and Checked by:	Logged K. Russell	l by: Contract No. -Clamp 4251

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### TRIAL PIT RECORD

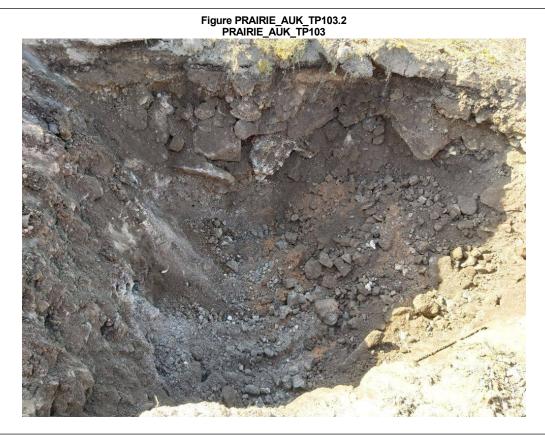
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP103 South Tees Development Corporation

E:454951.742 N:521784.855 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 21/04/2020 2 of 4





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

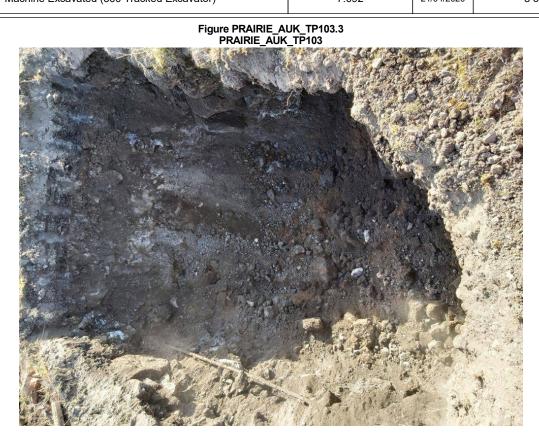
Tel: 0191 387 4700 Fax: 0191 387 4710

#### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

Client: South Tees Development Corporation Location: PRAIRIE\_AUK\_TP103

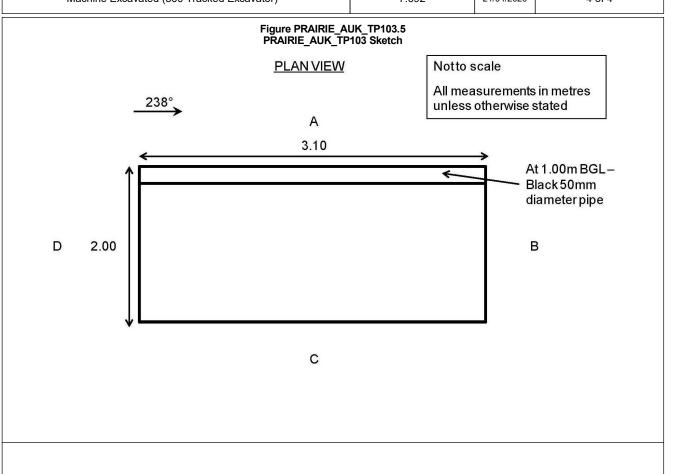




Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD PRELIM3 Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP103 South Tees Development Corporation E:454951.742 N:521784.855 Start Date: 21/04/2020 Method (Equipment): Machine Excavated (360 Tracked Excavator) Ground Level (m): 7.692 4 of 4



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

										-	
Project:			Prairie	Site Gr	ound Inv	estigatio	n Works			Explo	oratory Hole No.
South Tees Development Corporation							Location:				E AUK TP1
South Tees Development Corporation  Wethod (Equipment):							E:455113 Ground L	3.453 N:521688.		Sheet:	
Machine Excavated (360 Tracked Excavator)							Ground E	9.251	01/04/2020	Officet.	1 of 3
SAN	STRATA										
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
0.00-4.00 0.00-4.00 0.020 0.30 0.80 1.00 1.50 1.50 1.65 2.00 2.50 3.00 3.50 3.80 3.90 4.00	B14 B15 J1 B2 J3 B4 PID ES5 J6 B7 J8 B9 HSV J10 B11 J12 HSV B13	<0.1ppm 87 (22)kPa 86 (32)kPa		7.65 7.55 6.45 5.55		(0.40) 0.40 (1.20) (1.20) (1.10) (1.10) (1.10) 	coarse. Gra and slag).  MADE GRC Gravel is fin concrete, do include red vesicular gra from c.1.30r and include MADE GRC clay).  MADE GRC partially dec (Possibly Na  Firm to stiff gravelly CLA	e to coarse subablomite, red brick and cemer ey and green, iron BGL high coarsed and yellow bound (Firm fissuound). Firm grey composed plant atural Ground).  blue grey mottle indistinctly laminary with thin laminangular and in	wn sandy grave angular to subro c and ash. Cobb ted slag. Slag on rich in places obble content. O brick and concre ured brown mott brown slightly remains. Organ	and included and included a soles are secontent is secontent in second	cobble content. cobble content. dincludes slag, subangular and 50-75%. Slag is are subangular slightly sandy ay with some noted).  LAY.  sandy slightly nd. Gravel is fine
Face D	PLAN  2.80  Face A  Orientation 192°  Face C  ADDITIONAL INFORMATION					STABI Pit side	es stable throug	ghout excavation.			
Sketch Diagram:  No Sketch Taken  Photographs:  Yes  See additional sheets.											
All dimensions in metres Scale 1:50  For explanation of abbreviations see					of symbo	ols and Sheets	Checked by	Logged		Contract No. 4251	

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#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP104 South Tees Development Corporation

E:455113.453 N:521688.905 Start Date: 01/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

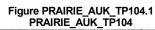




Figure PRAIRIE\_AUK\_TP104.2 PRAIRIE\_AUK\_TP104



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Tel: 0191 387 4700 Fax: 0191 387 4710

# TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP104 |
E:455113.453 N:521688.905





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

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#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works **Exploratory Hole No.** Client: Location: PRAIRIE\_AUK\_TP105 South Tees Development Corporation E:455006.172 N:521693.493 Method (Equipment): Start Date: Machine Excavated (360 Tracked Excavator) 8 696 01/04/2020 1 of 3 **SAMPLES & TESTS STRATA** Nater Reduced Depth Depth Legend Description MADE GROUND (Brown sandy topsoil. Sand is fine to coarse). MADE GROUND (Strong grey concrete). (0.55) MADE GROUND (Grey brown sandy gravel with medium cobble content. Gravel is fine to coarse subangular to subrounded and 0.80 .11 includes slag and concrete. Slag content is 50-75%. Slag is vesicular (0.90) B2 1 00 green grey. Cobbles are subangular and include slag). PID 1.20 <0.1ppm 1.20 ES3 MADE GROUND (Firm brown slightly sandy slightly gravelly clay with low cobble content. Gravel is fine to coarse subangular and includes 1.80 J4 sandstone, mudstone, slag and red brick. Cobbles are subangular and include red brick and slag. Slag content is 0-25%. Slag is 2.00 2.00 HSV 60 (20)kPa vesicular grey green white). B5 2.50 PID <0.1ppm at c.2.00m BGL ... engineer notes red brick dust coating on clay. 2.50 FS11 2.80 ES6 3.00 HSV 64 (24)kPa 3.00 from c.3.50m BGL ... becoming yellow brown gravelly. 3.80 J8 MADE GROUND (Firm grey brown slightly sandy slightly gravelly clay 4.20 4.30 4.40 B10 with some partially decomposed plant remains. Gravel is fine to coarse subangular and include slag and red brick. Slag content is 0-25%. Slag is vesicular grey green white. Organic odour noted). Terminated at 4.40m BGL - due to slow progress. **PLAN GROUNDWATER** No groundwater inflow observed. 2.50 Face A Face D Face Orientation 170° 60 **STABILITY** σ Pit sides stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: sheets. Checked by: Logged by: Contract No. All dimensions in metres For explanation of symbols and abbreviations see Key Sheets K. Russell-Clamp 4251 Scale 1:50

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP105

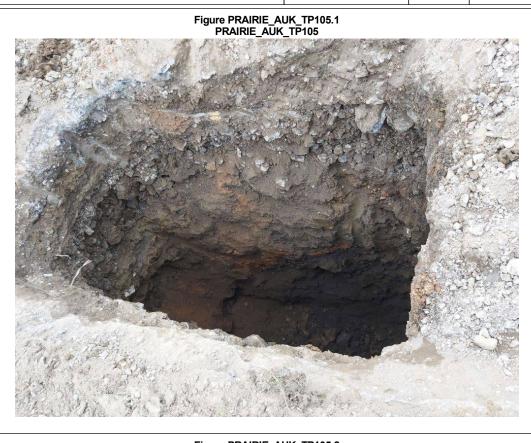
Method (Equipment):

Machine Excavated (360 Tracked Excavator)

Ground Level (m):

8.696

Start Date:
01/04/2020
2 of 3





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Tel: 0191 387 4700 Fax: 0191 387 4710

#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation E:455006.172 N:521693.493

Method (Equipment):

| Ground Level (m): Start Date: 01/04/2020 | Sheet: 01/04/2020 | 3 of 3

Figure PRAIRIE\_AUK\_TP105.3 PRAIRIE\_AUK\_TP105 - Spoil



Figure PRAIRIE\_AUK\_TP105.4
PRAIRIE\_AUK\_TP105 - Reinstatement



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#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP106 South Tees Development Corporation E:454906.605 N:521692.903 Ground Level (m): 7.889 Method (Equipment): Start Date: Machine Excavated (360 Tracked Excavator) 23/04/2020 1 of 3 **SAMPLES & TESTS** STRATA Nater Reduced Depth Depth Description MADE GROUND (Brown sandy gravel with high cobble and boulder content and fragments of metal, wire, wood, metal spanner and plastic. Gravel is fine to coarse subangular and includes concrete, 0.50 0.50 refractory brick, red brick and slag. Cobbles are subangular and include red brick and concrete. Boulders are subangular and include PID <0.1ppm concrete. Slag content is 0-25%. Slag is vesicular grey green white). -(1.80) B2 1.00 ES3 1.00 <0.1ppm 1.50 1.50 <0.1ppm Firm and stiff yellow brown mottled grey slightly sandy CLAY. 2.00 2.00 B5 HSV 70 (26)kPa (1.00) 2.50 2.50 J6 PID <0.1ppm Stiff to very stiff orange slightly sandy slightly gravelly CLAY. Gravel is fine to coarse subangular and includes sandstone, mudstone, coal 3.00 (0.70) and siltstone. 130 kPa 3.00 HSV 3.50 3.50 Complete at 3.50m BGL. <0.1ppm **PLAN GROUNDWATER** No groundwater inflow observed. 3.40 Face A Face D Face Orientation 008° .80 **STABILITY** Pit sides and base unstable between 0.00-1.80m BGL.. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: sheets. Contract No. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: All dimensions in metres K. Russell-Clamp 4251 Scale 1:50

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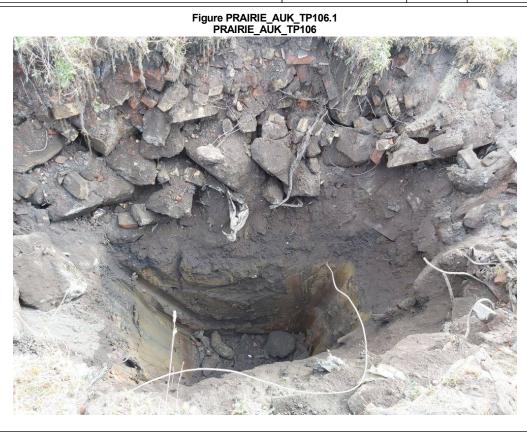
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP106 South Tees Development Corporation E:454906.605 N:521692.903

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 2 of 3







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP106 South Tees Development Corporation E:454906.605 N:521692.903 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 Ground Level (m): 7.889 3 of 3





### TRIAL PIT RECORD

Status:-

(G					IIN	IAL FI	I RECORD		PRELIM3
Project:		Prairie Site Ground Investigation Works							Exploratory Hole No.
Client:	South Tees Development Corporation						:	RAIRIE_AUK_TP107	
Method (Equipr	· · ·						E:454800.537 N:521660.80		Sheet:
wietrioa (Equipi		Excavated (36	60 Trac	ked Exc	cavator)		7.683	06/04/2020	1 of 3
SAI	MPLES &	TESTS					STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	ι	Description	
0.05 0.05 0.50 0.80 0.80 1.00 1.70 1.80 1.80 2.00 2.30 2.50 2.50 2.80 2.80	J1 B2 J3 PID ES11 HSV B4 J5 PID ES6 B7 J8 HSV B9 PID ES10	<0.1ppm 72 (34)kPa <0.1ppm 67 (34)kPa <0.1ppm	<b>±</b>	7.58 6.08 5.58		(1.50)	MADE GROUND (Brown sand coarse. Gravel is fine to coarse red brick and roadstone).  MADE GROUND (Firm yellow gravelly clay with medium cob metal. Gravel is fine to coarse includes red brick and sandstrinclude red brick).  MADE GROUND (Black grave Sand is fine to coarse. Gravel includes ash, macadam, coke is iron rich in places (rust). Cofused coke).  Firm to stiff grey brown slightly.  Complete at 3.00m BGL.	be subangular brown mottle bble content a subangular t one. Cobbles belly sand with is fine to coa and slag. Sla bbles are sub	and includes concrete, ed grey slightly sandy nd fragments of wood and o subrounded and are subangular and medium cobble content. rse subangular and ag content is 25-50%. Slag pangular and include
		PLAN					NDWATER strike at 2.00m BGL.		
Face D		2.80 Face A  Orientation  194° Face C		n ace	1.80	STABI		2.10m BGL.	
	4001	IONIAL INTO	N 4 A T ' C	N.I.			DAL DEMARKS		
Sketch Dia		IONAL INFOR	MATIO			GENE	RAL REMARKS		
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50			For exp	lanation iations s	of symbo see Key S	ols and Checked by:	Logged K. Russell	d by: Contract NoClamp 4251

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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP107 South Tees Development Corporation

E:454800.537 N:521660.804 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 06/04/2020 2 of 3

Figure PRAIRIE\_AUK\_TP107.1 PRAIRIE\_AUK\_TP107









### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP107 South Tees Development Corporation E:454800.537 N:521660.804
| Ground Level (m): 7.683 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 06/04/2020 3 of 3





#### TRIAL PIT RECORD

Status:-DDEI IM2

					•••		T NEGOND		PRELIMS
Project:			Prairie	Site Gr	ound Inv	vestigatio	n Works		Exploratory Hole No.
Client:	South Tee	s Development	t Corpo	ration		Location	:	RAIRIE_AUK_TP1	
Method (Equipn	nent):	·					E:454733.443 N:521630.8 Ground Level (m):		Sheet:
	Machine	Excavated (36	30 Trac	ked Exc	avator)		7.991	06/04/2020	1 of 3
SAM	MPLES &	TESTS			1		STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
0.30 0.50 0.80 0.90	J1 B2 J3 B4			7.39		(0.60) - 0.60 - 0.60	MADE GROUND (Grey sand subangular and includes road MADE GROUND (Black grey boulder content and fragmen subangular and includes road	dstone).  v sandy gravel ts of metal. Gr dstone, slag ar	with high cobble and avel is fine to coarse and coal. Slag content is
1.00 1.00 1.80 1.90 2.00 2.00	J6 B7 PID ES8	<0.1ppm	<u></u>	6.79		1.20	50-75%. Slag is vesicular, gr subangular and include slag MADE GROUND (Grey sand fragments of metal, wood and fine to coarse subangular to yellow brick, sinter, concrete, Slag is vesicular, grey green Cobbles are subangular and brick. Slight hydrocarbon odd from 2.00m BGL 50% cobb	ey green. Cobland partially colors and gravel wid glass. Sand subrounded ar ash and coal. white and iron include red brour).	bles and boulders are emented slag). th high cobble content and is fine to coarse. Gravel is not includes slag, red and Slag content is 50-75%. Trich in places (rust). ick and yellow refractory
2.80 2.90 3.00 3.00	J9 B10 PID ES11	0.6ppm		3.99		4.00	at c.3.00m BGL oily sheen at c.4.00m BGL engineer r Terminated at 4.00m BGL - di	notes possible	
		PLAN 3.00 Face A			<u> </u>		NDWATER strike at 2.30m BGL.		
Face D		Orientation 194°  Face C		Tace D	2.00	STABI Pit side	LITY es stable throughout excavation.		
	ADDIT	IONAL INFORI	MATIO	N		GENE	RAL REMARKS		
Sketch Dia			Sketch T						
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50			For exp	lanation	of symbo see Key S	ols and Checked by: heets	Logged K. Russell	d by: Contract No.

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

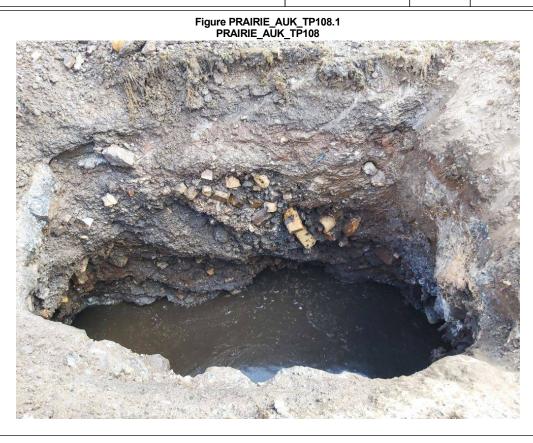
### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP108 | E:454733.443 N:521630.866

| Method (Equipment): | Ground Level (m): | Start Date: | 06/04/2020 | 2 of 3 |





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### **TRIAL PIT RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP108 | E:454733.443 N:521630.866

| Method (Equipment): | Ground Level (m): | Start Date: | Sheet: | 7.991 | 06/04/2020 | 3 of 3





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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-DDEI IM2

					•••			()		PRELIIVIS
Project:			Prairie	Site Gr	ound Inv	/estigatio	n Works			Exploratory Hole No.
Client:	South Tee	es Development	Corpo	ration		Location	:	RAIRIE_AUK_TP109		
Method (Equipn	nent):						E:455108   Ground Le	3.905 N:521613. evel (m):		Sheet:
	Machine	e Excavated (36	0 Trac	ked Exc	avator)			9.164	21/04/2020	1 of 3
SAN	MPLES &	TESTS			1			STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.50 0.50	J1 PID	<0.1ppm				(1.80)	Gravel is fin- red brick, co vesicular gre	e to coarse suba increte and ash	angular to subro Slag content is Cobbles are sub	with high cobble content. Sunded and includes slag, 75-100%. Slag is Deangular and include slag,
1.00 1.00 1.50	ES3 PID J4	0.1ppm				\$ \$ \$				
1.50 1.70	PID B5	0.1ppm		7.36		1.80	Firm to stiff i	indistinctly lamin	ated orange bro	own mottled grey slightly
2.00 2.00 2.00	J6 HSV PID	82 (40)kPa <0.1ppm				(1.30)			possible relic	ct topsoil (plant material).
2.70	B7					} - -				
3.00 3.00 3.00	J8 HSV PID	103 (40)kPa <0.1ppm		6.06	<del></del>	3.10	Complete at	3.10m BGL.		
		PLAN				GROU	NDWATER			
<u> </u>		4.50 Face A			<b>1</b>	No gro	undwater inflov	v observed.		
Face D		Orientation 189°		T ace	2.10	STABI Pit side		oderately stable th	nroughout excava	ation.
		Face C			<b></b> ↓					
	ADDITIONAL INFORMATION						RAL REMARI	<b>KS</b>		
Sketch Dia	gram:	No S	ketch T	aken						
Photogra	phs:	Yes		See add						
	ensions in Scale 1:50			For exp	lanation	of symbo see Key S	ols and heets	Checked by	: Logged K. Russell	by: Contract No.

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## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP109 South Tees Development Corporation E:455108.905 N:521613.046

Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3



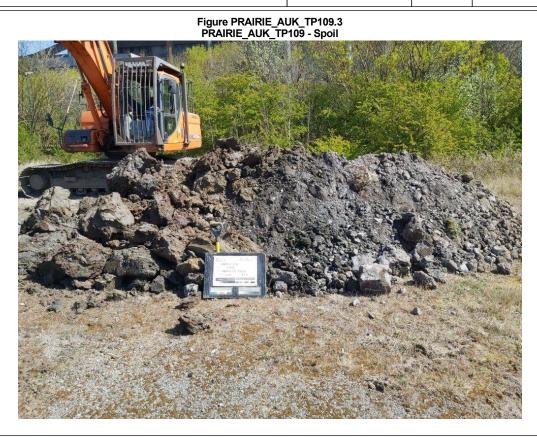




### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP109 South Tees Development Corporation E:455108.905 N:521613.046 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 21/04/2020 3 of 3



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### TRIAL PIT RECORD

PRELIM3

roject:			Prairie	Site Gr	ound Inv	estigation	n Wor	rks		Exploratory Hole No.		
lient:	South Tee	South Tees Development Corporation							Р	PRAIRIE_AUK_TP1		
lethod (Equi		e Excavated (36	0 Trac	ked Exc	avator)		<u> </u>	E:455001.878 N:521603.27 Ground Level (m): 8.856	'4 Start Date: 21/04/2020	Sheet: 1 of 3		
		-	T	 					2 // 0 // 2020	1 0.0		
S/	AMPLES &		_					STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Г	escription			
						-	Gra	DE GROUND (Grey brown vel is fine to coarse suban	gular and inc	ludes red brick, slag and		
0.50	J1					-	conwith	crete. Slag content is 50-7 occasional rust (iron) part	5%. Slag is v icles. Cobble	esicular green grey white s are subangular and		
).50	PID	<0.1ppm					inclu	ude concrete and cemente	d slag).	<del>-</del>		
1.00	B2					(2.10)						
1.00 1.00	ES3 PID	<0.1ppm										
1.50	J4					-	from	n c.1.50m BGL slightly s	andy.			
1.50	PID	<0.1ppm										
2.00	B5			6.76		2.10	МДГ	DE GROUND (Soft to firm	orange brow	n mottled grev sandy		
							sligh	ntly gravelly clay with fragm	nents of potte	ry, metal and wood.		
2.50 2.50	J6 PID	0.3ppm						vel is fine to coarse subang , coke and red bricks).	guiar and inc	ludes mudstone, coal,		
2.80	ES7	3.04				-						
3.00 3.00	B8 HSV	59 (18)kPa				(2.40)						
.00	PID	0.2ppm				(2.40)						
.50 .50	J9 PID	<0.1ppm										
.00	B10					-						
.00	ES11 HSV	49 (12)kPa				-						
.00 .50	PID J12	<0.1ppm		4.36		4.50	Con	nplete at 4.50m BGL.				
.50	PID	0.1ppm				-		•				
						-						
						-						
						-						
						-						
		PLAN				GROU No gro		ATER ater inflow observed.				
_		3.10 Face A			<b>†</b>							
		Orientation		T a C c	] <u>'</u>							
Face D				6	.90	STABI						
						Pit side	s and	base stable throughout exca	avation.			
L		Face C										
	ADDITIONAL INFORMATION						RAL F	REMARKS				
						1						
Sketch D	iagram:	No S	ketch Ta	aken								
						-						
				See add	itional							
Photog	raphs:	Yes		shee								

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

Client: South Tees Development Corporation PRAIRIE\_AUK\_TP110

| E:455001.878 N:521603.274 | | Method (Equipment): | Ground Level (m): | Start Date: | 21/04/2020 | 2 of 3 |

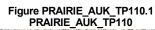




Figure PRAIRIE\_AUK\_TP110.2 PRAIRIE\_AUK\_TP110





### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP110 South Tees Development Corporation E:455001.878 N:521603.274 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 21/04/2020 Ground Level (m): 8.856 3 of 3

Figure PRAIRIE\_AUK\_TP110.3 PRAIRIE\_AUK\_TP110 - Spoil

Head Office: Regional Offic Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP111 South Tees Development Corporation E:454901.611 N:521593.473 Method (Equipment): Ground Level (m): 8 252 Start Date: Machine Excavated (360 Tracked Excavator) 22/04/2020 1 of 3 **SAMPLES & TESTS** STRATA Nater Reduced Depth Depth Description MADE GROUND (Grass over light brown gravelly sand. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded and (0.80) includes red brick, concrete and slag. Slag content is 0-25%. Slag is 0.40 0.40 vesicular grey green white). PID <0.1ppm 0.60 MADE GROUND (Black gravelly sand and gravel with medium cobble content and fragments of wood, nails and metal. Sand is fine 1.00 to coarse. Gravel is fine to coarse subangular to subrounded and 1.00 0.1ppm includes ash, macadam, red brick, concrete, coke and slag. Cobbles (1 20) are subangular and include red brick, macadam and concrete. Slag 1.50 1.50 ES4 content is 0-25%. Slag is vesicular grey green white). PID 0.2ppm 1.60 2.00 2.00 Firm to stiff orange brown mottled grey slightly sandy CLAY. <0.1ppm 2.50 2.60 HSV 70 (30)kPa (1.20) 3.00 HSV 3.00 3.00 101 (32)kPa Complete at 3.20m BGL. <0.1ppm **PLAN GROUNDWATER** No groundwater inflow observed. 2.50 Face A Face D Face Orientation .60 188° **STABILITY** σ Pit sides and base stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: Yes sheets. Contract No. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: All dimensions in metres K. Russell-Clamp 4251 Scale 1:50

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP111 South Tees Development Corporation E:454901.611 N:521593.473

Start Date: 22/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP111 South Tees Development Corporation E:454901.611 N:521593.473

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 3 of 3

## Figure PRAIRIE\_AUK\_TP111.3 PRAIRIE\_AUK\_TP111 - Spoil





### TRIAL PIT RECORD

PRELIM3

Project:													
			Prairie	Site Gr	ound Inv	/estigatio		rks			Explo	oratory Hole No.	
Client:	South Tee	es Developmen	t Corpo	oration	Location: ion E:454830.544 N:521581.112						PRAIRIE_AUK_TP1		
lethod (Equip		e Excavated (36	60 Trac	ked Exc	cavator)			Ground Leve		Start Date: 22/04/2020	Sheet:	1 of 3	
SA	MPLES &	TESTS							STRATA	-			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			I	Description			
0.50 0.50 0.70 1.00 1.50	J1 PID B2 J3 PID	<0.1ppm <0.1ppm <0.1ppm		8.10		(0.80)	and coal refra yello whit MAI nails coal cond	fragments rse subang actory brick. Swe). DE GROU s, plastic a rse subang crete, refra	of metal, plasti gular and includ	c, tin cans an es red brick, of subangular a -25%. Slag is and gravel with and is fine to conded and include.	d nails. Oconcrete, nd including vesicula ith fragmoarse. Grides ash,	slag and le concrete and r grey green  ents of metal, avel is fine to red brick,	
1.70 2.00 2.00 2.10	J6 PID ES7	0.5ppm	<u>‡</u>	7.00 6.50		(0.50) 2.40	is fir	ne to coars	ND (Black grave se subangular to drocarbon/oily o	subrounded		to coarse. Gravel udes ash and	
2.10 2.30	PID B8	0.9ppm	=	6.20		2.40			rown mottled gr		ndy CLA	<b>'</b> .	
2.50 2.70 2.70	HSV J9 PID	76 (38)kPa <0.1ppm		0.20	× × × × × × × × × × × × × × × × × × ×	}_	Soft	to firm ora	ange mottled br	own sandy SI	LT/CLAY		
3.00 3.00	J10 PID	<0.1ppm			×	(0.70)							
3.10 3.20	HSV B11	56 (24)kPa		5.50	<del>× ×</del>	3.40	Con	nplete at 3.	40m BGL.				
		PLAN				GROU	INIDIA	ATED					
		2.60			<b>→</b>			at 2.40m B	GL.				
		Face A											
Face D		Orientation 120°		- ac	1.40 —	STABI Pit side		base stabl	e throughout exc	avation.			
		Face C			_ ↓								
	ADDIT	TONAL INFOR	MATIO	N		GENE	RAL F	REMARKS	<u> </u>				
Sketch Dia	agram:	No S	Sketch T	aken									
Photogra	aphs:	Yes		See add									
	ensions in Scale 1:50			For exp abbrev	lanation	of symbo	ols and	d	Checked by:	Logged K. Russell		Contract No. 4251	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP112 South Tees Development Corporation

E:454830.544 N:521581.112 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 Ground Level (m): 8.900 2 of 3





Figure PRAIRIE\_AUK\_TP112.2 PRAIRIE\_AUK\_TP112



## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP112 South Tees Development Corporation

E:454830.544 N:521581.112 Method (Equipment):
Machine Excavated (360 Tracked Excavator)

Start Date: 22/04/2020 Ground Level (m): 8.900 3 of 3

Figure PRAIRIE\_AUK\_TP112.3 PRAIRIE\_AUK\_TP112 - Spoil

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RI

Tel: 0191 387 4700 Fax: 0191 387 4710



### TRIAL PIT RECORD

PRELIM3

*7									I KEEIWIS
roject:	et: Prairie Site Ground Investigation Works								Exploratory Hole No.
ient:	nt: South Tees Development Corporation						E.454004 540 Ni504500 04		RAIRIE_AUK_TP1
thod (Equipm		Excavated (36	60 Trac	ked Exc	avator)		E:454694.546 N:521566.24 Ground Level (m): 8.160	Start Date: 06/04/2020	Sheet: 1 of 4
SAM	/IPLES &	TESTS					STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	D	escription	
30 30 30 30 30 30 30	J1 B2 J3 B4 PID ES5 B6 J7 B8 HSV J9 B10	<0.1ppm	<b>1</b>	5.86 5.16		0.10. (2.20) (0.70) - 3.00	MADE GROUND (Grass over MADE GROUND (Dark brown Fragments of metal. Sand is fir is fine to coarse subangular ar concrete and slag. Slag conter and include red brick, concrete from c.1.30m BGL high cobb boulders are subangular and in fused slag. at c.1.50-2.30m BGL Faces fine to coarse subangular to su MADE GROUND (Firm orange (Possibly Natural Ground).  from c.2.90m BGL Face A: s Firm indistinctly laminated oran sand lenses with some fine sa Terminated at 3.80m BGL - due ingress.	gravelly sand to coarse and include sand it is 0-25%. Ce and slag).  Die and bould nelude concrete B and C: Whubrounded and brown slight slag or concrete nge brown sand on laminar	d with low cobble content. and includes ash. Gravel adstone, ash, red brick, cobbles are subangular  der content. Cobbles and ete, brick and partially aite grey gravel. Gravel is ad includes slag.  dy sandy clay).  ete plinth/ledge. andy CLAY with some silty tion surfaces.
		PLAN					NDWATER strike at 1.70m BGL.		
<u> </u>		3.20 Face A			<b>†</b>	A A GIGI	Samo de 1.7 oni DOL.		
Face D		Orientation 350° →		Tace Ce	2.00	STABI Pit side	LITY s stable throughout excavation.		
	ADDIT	IONIAL INCOM	MAT!	NI .			DAL DEMARKS		
Sketch Diag		IONAL INFOR	etch Tal			JUGENE	RAL REMARKS		
Photograp	phs:	Yes		See add shee					
	nsions in Scale 1:50			For expl	anation	of symbosee Key S	ls and Checked by:	Logged K. Russell-	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

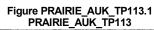
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP113 South Tees Development Corporation E:454694.546 N:521566.242

Start Date: 06/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4



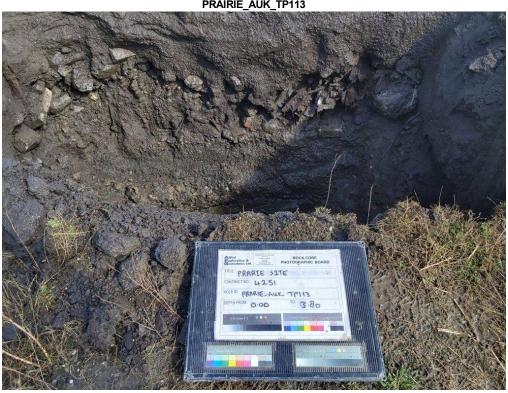


Figure PRAIRIE\_AUK\_TP113.2 PRAIRIE\_AUK\_TP113



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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP113 South Tees Development Corporation

E:454694.546 N:521566.242 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 06/04/2020 3 of 4





	TRI	AL PIT RE	CORD		Status:- PRELIM3
	Exploratory Hole No.				
South Tee	s Development Corporation	Location:	54694.546 N:52156	<b>P</b> 6.242	RAIRIE_AUK_TP
uipment): Machine	Excavated (360 Tracked Excavator)	Gr	ound Level (m): 8.160	Start Date: 06/04/2020	Sheet: 4 of 4
	Figur PRA	e PRAIRIE_AUK IRIE_AUK_TP11	_TP113.5 3 Sketch		
Γ	Not to scale				
	All measurements in metres unless otherwise stated	PLAN VIEW	<u>L</u>	<del>170°</del> →	
L	unicos otnerwise stateu	3.20	Α		
<b>↑ Г</b>					<b></b>
- 11		2.90m BGL - Sla crete plinth/ledg			1.00
	33.		<b>,</b> -		
D 2.00					↓ в
2.00					
		3.80m BGL			
V L		С			

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RI

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works								Exploratory Hole No.				
										lient: So	uth Tee	s Development
ethod (Equipment):  Machine Excavated (360 Tracked Excavator)								11.674 N:521563 Level (m): 7.756	Start Date: 07/04/2020	Sheet: 1 of 4		
			Ī	T				STRATA				
SAME	PLES &			5		5 "		SIRAIA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description					
10 10 30 40 50 50 90 90 33 40	J1 B2 J3 B4 ES5 PID ES6 PID J7 B8	7.2ppm 130.0ppm		5.76		2.00	MADE GR metal and subangula concrete). at c.0.90m diameter. within the	tiles. Sand is fine ir and includes re i BGL clay pipe Black tar with hyd pipe.	ayey gravelly san to coarse. Grav d brick, refractor running from Fa drocarbon odour	nd with fragments glass, yel is fine to coarse		
PLAN ← 2.70 →						Ground	GROUNDWATER Groundwater seepage at 0.50m BGL. Water flowing out of the damaged pipe during excavation.					
Face C						STABI	LITY	m 1.20m BGL.				
	ADDIT	IONAL INFORM	MATIO	N		GENE	RAL REMA	RKS				
Sketch Diagram: Sketch Taken												
Photographs: Yes See additional sheets.												
All dimensions in metres Scale 1:50  For explanation o abbreviations se					of symbo	ls and heets	Checked by	y: Logged K. Russell-	by: Contract No.			

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP114 South Tees Development Corporation E:454611.674 N:521563.937

Start Date: 07/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4





Figure PRAIRIE\_AUK\_TP114.2 PRAIRIE\_AUK\_TP114



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

Client: South Tees Development Corporation PRAIRIE\_AUK\_TP114

> Figure PRAIRIE\_AUK\_TP114.3 PRAIRIE\_AUK\_TP114 - Spoil

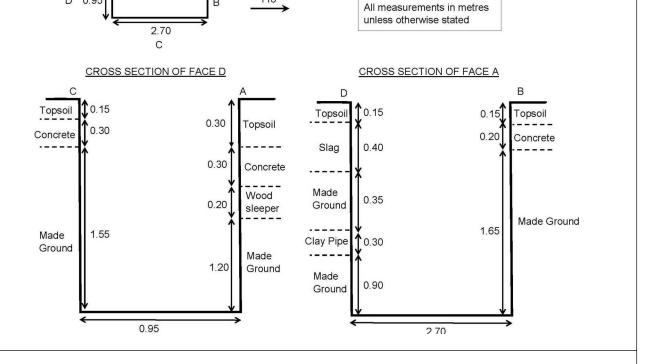


Figure PRAIRIE\_AUK\_TP114.4 PRAIRIE\_AUK\_TP114 - Reinstatement



В

#### TRIAL PIT RECORD PRELIM3 Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP114 South Tees Development Corporation E:454611.674 N:521563.937 Start Date: 07/04/2020 Method (Equipment): Machine Excavated (360 Tracked Excavator) 4 of 4 Figure PRAIRIE\_AUK\_TP114.5 PRAIRIE\_AUK\_TP114 Sketch **PLAN VIEW** Α Not to scale 116° D 0.95



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:PRFI IM3

								PRELIIVIS			
Project: Prairie Site Ground Investigation Works								Exploratory Hole No.			
Client:	South Tee	s Developmen	t Corno	oration		Location	:	RAIRIE_AUK_TP1			
		s Developmen	СОГР	Jiation			E:454493.054 N:521548.8 Ground Level (m):	834 Start Date:	Sheet:		
Method (Equipment): Machine Excavated (360 Tracked Excavator)							7.843	08/04/2020	1 of 5		
SAN	SAMPLES & TESTS				1		STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description			
0.30 0.30 0.50 0.80 1.40 1.70 1.90 1.90 2.00	J1 B2 W9 B3 J4 B5 PID ES6 HSV	<0.1ppm 25 (8)kPa	<u></u>	6.64		(0.40) 0.40 (0.80) 1.20	MADE GROUND (Dark brown MADE GROUND (Yellow greefrom c.0.40m BGL Face Description of the content is 50-75%. Slag is very between 1.20-3.10m BGL sandy silt/clay.	ey refractory bri concrete wall dy gravel. Graven di includes ast esicular grey gr	el is fine to coarse n, red brick and slag. Slag reen).		
2.70	B8			4.74		3.10	Terminated at 3.10m BGL - d	lue to water ing	ress.		
		PLAN				GROU	NDWATER				
		3.20 Face A			<b>1</b>		strike at 0.30m BGL.				
Orientation Face B  128°  B  128°						STABI Side A	LITY unstable from c.0.40m BGL.				
		Face C			_  ↓						
	ADDIT	IONAL INFOR	MATIC	N			RAL REMARKS	or to following	voteboo for further details		
Sketch Dia	Sketch Diagram: Sketch Taken						scriptions represent Face C. Refe	er to rollowing sk	Reighes foi Turther Getalis.		
Photogra	Photographs: Yes See additional sheets.										
	ensions in Scale 1:50			For exp	lanation	of symbo see Key S	ols and Checked by:	Logged K. Russell	l by: Contract NoClamp 4251		

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP115 South Tees Development Corporation E:454493.054 N:521548.834

Start Date: 08/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 5









Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP115 South Tees Development Corporation E:454493.054 N:521548.834

Start Date: 08/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 5

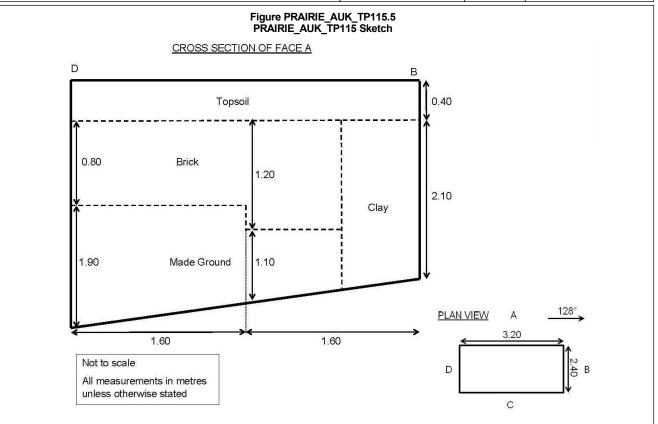


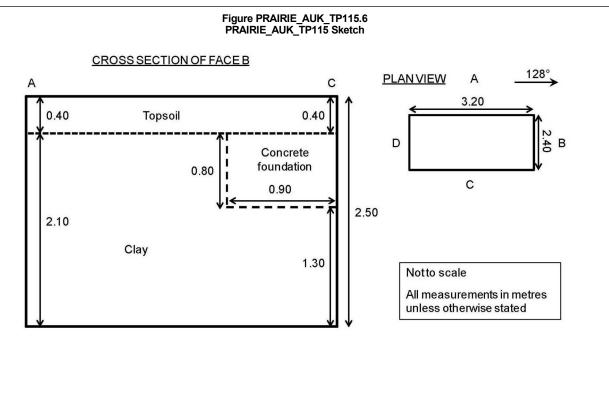


Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD PRELIM3 Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP115 South Tees Development Corporation E:454493.054 N:521548.834 Ground Level (m): 7.843 Start Date: 08/04/2020 Method (Equipment): Machine Excavated (360 Tracked Excavator) 4 of 5

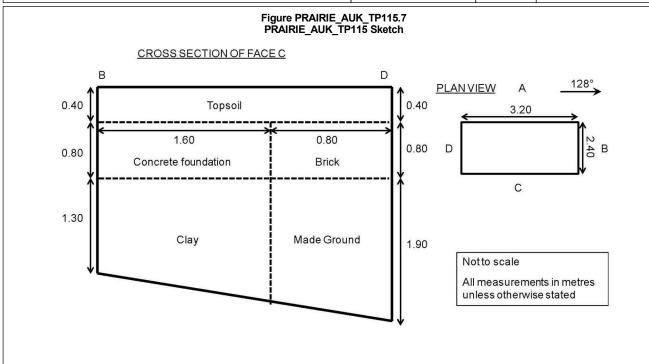


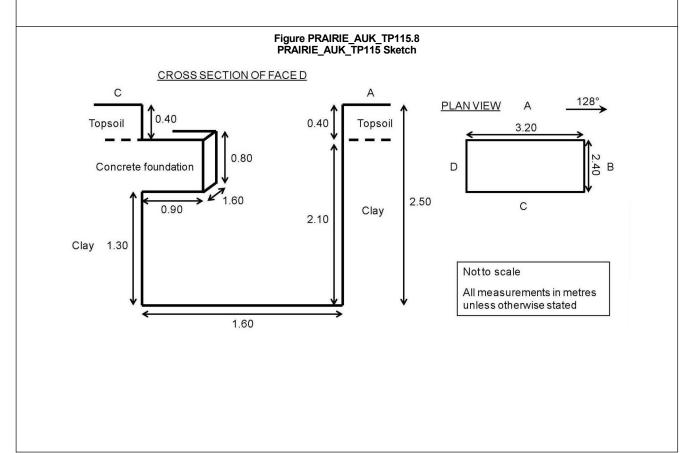


Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

PRELIM3

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Prairie Site Ground Investigation Works  South Tees Development Corporation  Placetion:  Placetion:									Exploratory Hole No.	
——————————————————————————————————————		e Excavated (36	60 Trac	ked Exc	cavator)			8.842	23/04/2020	1 of 3
SAM	SAMPLES & TESTS							STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.50 0.50 0.00	J1 PID B2	5.4ppm				(1.60)	content. Gra includes slag subangular	ivel is fine to co g, concrete, red	arse subangular I brick and refrac g. Slag content i	l with medium cobble r to subrounded and ctory brick. Cobbles are s 50-75%. Slag is
.30  .30  .50	ES3 PID J4	7.1ppm		7.24 7.04	XXXXX	1.60	MADE GRO	UND (Firm blac	ck brown slightly	sandy clay. Organic
l.60 l.60 l.70	J5 PID B6	8.8ppm		7.04		1.80	∖odour noted	). `		ntly sandy CLAY.
2.00 2.00 2.00 2.50	J7 HSV PID B8	100 (68)kPa <0.1ppm				(1.10)		Ç	0,0	
3.00 3.00 3.00 3.50	J9 HSV PID B10	130 kPa <0.1ppm		5.94		2.90	coarse grave subangular	el sized pockets and includes sa	s of orange sand	ly gravelly CLAY with I. Gravel is fine to coarse nudstone and siltstone. s.
						-				
						-				
PLAN  3.20  Face A							NDWATER undwater inflow	v observed.		
Face D	O Orientation 338°  →				- 1.90 —	STABI Pit side		able throughout e	excavation.	
		Face C			_]↓					
ADDITIONAL INFORMATION						GENE	RAL REMAR	KS		
Sketch Diagram: No Sketch Taken										
Photographs: Yes See additional sheets.										
All dimensions in metres Scale 1:50 For explanation o abbreviations see						of symbo see Key S	ls and heets	Checked by	/: Logged K. Russell-	l by: Contract No. -Clamp 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

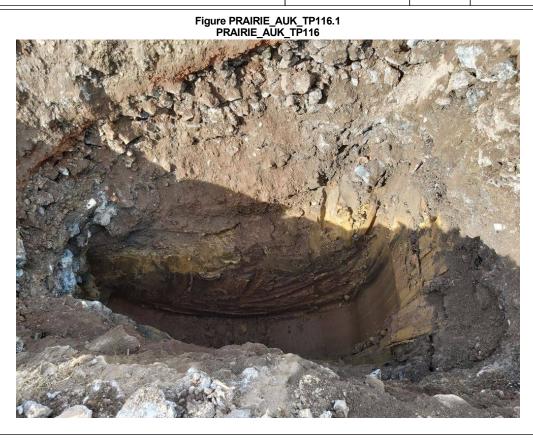
## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP116 South Tees Development Corporation E:455046.603 N:521489.508

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 2 of 3







## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP116 South Tees Development Corporation E:455046.603 N:521489.508 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 Ground Level (m): 8.842 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

Status:-DDEI IM2

. T						. ILEGOND		PRELIIVIS	
roject:		Prairie	Site Gro	ound Inv	estigatior	n Works		Exploratory Hole No.	
lient: South T	ees Development	Corpo	ration		Location:		P	RAIRIE_AUK_TP1	
ethod (Equipment):	·					E:455003.534 N:521496.	122   Start Date:	Sheet:	
Mach	ine Excavated (36	0 Trac	ked Exc	avator)		8.653	23/04/2020	1 of 3	
SAMPLES	& TESTS					STRATA			
Depth Type	Depth Type Test Securit Reduced Legence Level				Depth (Thickness)		Description		
.50 J1 .50 PID .00 B2 .20 ES3 .20 PID .50 J4 .00 B5 .00 J6 .80 J7 .00 ES8 .00 PID .20 ES9	10.4ppm 9.6ppm		6.05 5.35		(2.60)	MADE GROUND (Black grey content. Gravel is fine to coal includes ash, concrete, slag, brick. Cobbles are subangular macadam, concrete and cern Slag is vesicular grey green.  MADE GROUND (Grey clayer pockets of firm orange brown is fine to coarse subangular slag and concrete. Slag contingreen white).  Terminated at 3.30m BGL - discounts and concrete is slag and concrete.	ey sandy grave n mottled grey s	r to subrounded and locadam and refractory refractory brick, ag content is 75-100%. lour noted).  I with coarse gravel sized slightly sandy clay. Gravel and includes red brick, s. Slag is vesicular grey	
ADE Sketch Diagram: Photographs:	PLAN 2.80 Face A  Orientation 343° Face C  DITIONAL INFORM No S	MATIO ketch Ta		itional	STABII From 1	NDWATER water seepage at 2.60m BGL.  LITY 60m BGL all faces unstable (un	dermining).		

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

## TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.





Figure PRAIRIE\_AUK\_TP117.2 PRAIRIE\_AUK\_TP117



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## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP117 South Tees Development Corporation E:455003.534 N:521496.122
| Ground Level (m): 8.653 | S Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 3 of 3





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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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## TRIAL DIT DECORD

Status:-

Œ					TR	IAL PI	TRECORD	PR	ELIM3
Project:			Prairie	Site Gre	ound Inv	estigatio	n Works	Explorat	ory Hole No.
Client:	South Tee	s Development	t Corpo	ration		Location	:	PRAIRIE_	AUK_TP118
Method (Equipn		e Excavated (36	30 Trac	ked Exc	avator)			Date: Sheet: //04/2020	I of 3
SAM	MPLES &	TESTS					STRATA	•	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Desc	ription	
0.50 0.50 1.00 1.20 1.20 1.50	J1 PID B2 ES3 PID J4	0.2ppm <0.1ppm		7.18		(1.30)	MADE GROUND (Grass over tops MADE GROUND (Brown sand and and fragments of metal. Sand is fit coarse subangular to subrounded ash, slag and refractory brick. Cobred and yellow brick and concrete vesicular grey green white).  Firm black brown slightly sandy slit to coarse subangular and includes	gravel with low coble to coarse. Gravel in the coarse of t	s fine to k, concrete, and include %. Slag is  Gravel is fine
1.60 1.60 1.60	B5 HSV PID	68 (42)kPa <0.1ppm		0.00		-	(Possible Made Ground). Firm orange brown mottled grey sl	_	
2.20 2.20 2.50 2.60	J6 PID B7 HSV	<0.1ppm 82 (40)kPa		5.58		(1.30)			
		PLAN				GROU	NDWATER		
<u> </u>		2.80 Face A			<u></u>		lwater seepage at 1.40m BGL.		
Face D		Orientation 346° →		race b	1.50	STABI Pit side	LITY es and base stable throughout excavati	on.	
		Face C			J↓				
	ADDIT	IONAL INFORI	MATIO	N		GENE	RAL REMARKS		
Sketch Dia	gram:	No S	Sketch Ta	aken					
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50			For expl	lanation of	of symbo	ls and Checked by: K	Logged by: 0	Contract No. 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP118 South Tees Development Corporation

E:454893.854 N:521502.578 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 2 of 3





## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP118 South Tees Development Corporation E:454893.854 N:521502.578 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 3 of 3



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## TRIAL PIT RECORD

PRELIM3

								_		I KELINS
Project:		·	Prairie	Site Gr	ound Inv	estigation	n Works			Exploratory Hole No.
Client:	South Tee	es Development	Corpo	ration		Location:			PI	RAIRIE_AUK_TP1
Method (Equipn		e Excavated (36	0 Trac	ked Fxc	cavator)		E:454801 Ground Le	.846 N:521499.60 evel (m): 8.925	69 Start Date: 22/04/2020	Sheet:
SAN	MPLES &		T					STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
	140	resuit	>	8.83		0.10	MADE GRO	UND (Black maca	adam).	
0.50 0.50 1.00 1.00	J1 PID B2 PID	<0.1ppm <0.1ppm				- - - - - - - (2.10)	MADE GRO Sand is fine subrounded subangular	UND (Black sand to coarse. Gravel and includes mad	l and gravel wi l is fine to coar cadam, ash ar	th low cobble content. se subangular to d slag. Cobbles are s 50-75%. Slag is
1.50 1.50 1.50	ES3 J4 PID B5	<0.1ppm	<b>+</b>	6.73		- - - - - - - 2.20	from c.1.50r	n BGL gravelly	sand.	
2.50 2.50 2.50 2.50 2.50 2.50 3.00 3.00	J6 ES7 HSV PID B8 HSV	<0.1ppm  47 (20)kPa <0.1ppm  65 (22)kPa	<u>*</u>	5.73		(1.00) - - - - - - - - 3.20	Firm orange	brown mottled gr	ey slightly san	dy CLAY.
Face D		PLAN 2.50 Face A  Orientation 354°		- ace	1.50	Water	NDWATER strike at 2.20m	BGL		
ĬŢ.		Face C				STABI Pit side		ble throughout exc	cavation.	
	ADDIT	TIONAL INFORM	MATIO	N		GENE	RAL REMARI	(S		
Sketch Dia	gram:	No Si	ketch T	aken						
Photogra	phs:	Yes		See add shee						
	ensions in			For exp	lanation	of symbo	ls and	Checked by:	Logged K. Russell-	by: Contract No.

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP119 South Tees Development Corporation

E:454801.846 N:521499.669 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 2 of 3







## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP119 South Tees Development Corporation E:454801.846 N:521499.669 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 3 of 3

Figure PRAIRIE\_AUK\_TP119.3 PRAIRIE\_AUK\_TP119 - Spoil



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# TRIAL DIT DECORD

Status:-

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Project:			Prairie	Site Gro	ound Inve	estigatio	n Works			Explora	atory Hole No.
Client:	South Tee	s Development	Corpo	ration		Location	:		P	RAIRIE	_AUK_TP120
Method (Equipm		e Excavated (36	0 Trac	ked Exc	avator)		E:454697 Ground Le	7.497 N:521508.6 evel (m): 7.995	11   Start Date:   20/04/2020	Sheet:	1 of 3
SAN	/IPLES &	TESTS					1	STRATA	-	•	
Depth	Type No	Test Result	Water	Reduced Level	Legend (	Depth Thickness)		ı	Description		
0.50 0.50 0.80 1.00 1.50	J1 PID B2 ES3 PID J4 PID	<0.1ppm <0.1ppm <0.1ppm		6.50		(1.50) - 1.50	fragments of subangular are subangular grevesicular greve	JUND (Black grave f metal. Sand is fi and includes red lar and include co ey green white).	ne to coarse. brick, ash, cor oncrete. Slag	Gravel is fincrete and content is (	ne to coarse slag. Cobbles )-25%. Slag is
	_	PLAN 3.20			•		INDWATER dwater seepage	e at 1.50m BGL.			
Face D		Face A  Orientation  242°  Face C		Tace D	1.50	STABI Pit side		able throughout exc	cavation.		
	ADDIT	TONIAL INTO CO	MAT!	NI .		CENE	DAL DEMAS	/c			
Sketch Diag		IONAL INFORI	Sketch T			GENE	RAL REMARI	(5			
Photograp	ohs:	Yes		See addi sheet							
	nsions in Scale 1:50			For expl abbrevi	anation o	of symbo	ols and heets	Checked by:	Logged K. Russell	l by: -Clamp	Contract No. 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

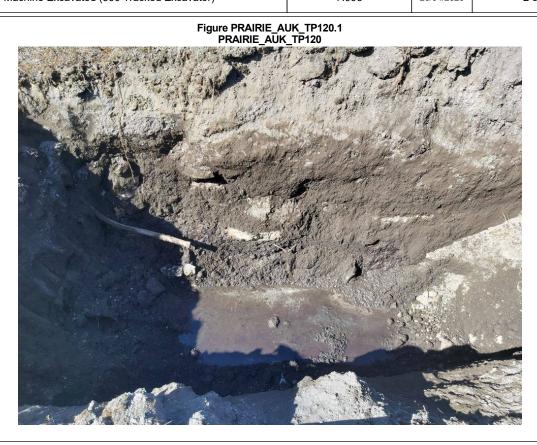
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP120 South Tees Development Corporation

E:454697.497 N:521508.611 Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





Contract No.: 4251



## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location:

South Tees Development Corporation

PRAIRIE\_AUK\_TP120

E:454697.497 N:521508.611 Method (Equipment):
Machine Excavated (360 Tracked Excavator)

Start Date: 20/04/2020 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2F

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

Status:PRFI IM3

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roject:			Prairie	Site Gr	ound In	vestigatio	n Works		Exploratory Hole No.
lient:	South Tee	s Development	Corne	ration		Location	:	PR	AIRIE_AUK_TP12
			Согрс	лацоп			E:454697.765 N:521513	.778 Start Date:	Sheet:
ethod (Equipn	Machine	Excavated (36	0 Trac	ked Exc	cavator)		Ground Level (m): 7.878	20/04/2020	1 of 3
SAN	SAMPLES & TESTS						STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
.50 .50 .80 .00	J1 PID B2 ES3 PID	<0.1ppm	<u></u>	0.50		(1.30)	MADE GROUND (Black grais fine to coarse. Gravel is fand includes red brick, conductors). Slag is vesicular grain grain from the conductors of the conductors	ine to coarse su crete, ash and sl	bangular to subrounded
.50 .50 .50	J4 HSV PID	62 (22)kPa <0.1ppm	<u>*</u>	6.58		(0.70)	Soft to firm yellow brown me	ottled grey sand	y CLAY.
.50 .50 .50	J6 HSV PID	74 (18)kPa <0.1ppm		5.88 4.98		(0.90)	Firm to stiff thinly laminated CLAY with fine yellow brown		
		PLAN				CDOL	  NDWATER		
<del>-</del>		3.20 Face A			<b>1</b>		strike at 1.30m BGL		
Face D		Orientation 300°		n C	- 1.50	STABI Pit side	LITY es and base stable throughout e	excavation.	
		Face C			<b></b> ↓				
	ADDIT	IONAL INFORI	MATIO	N		GENE	RAL REMARKS		
Sketch Dia	gram:	No S	sketch T	aken					
Photograp	ohs:	Yes		See add					
	nsions in Scale 1:50			For exp abbrev	lanation	of symbosee Key S	ols and Checked by	/: Logged K. Russell-	by: Contract NoClamp 4251

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## TRIAL PIT RECORD

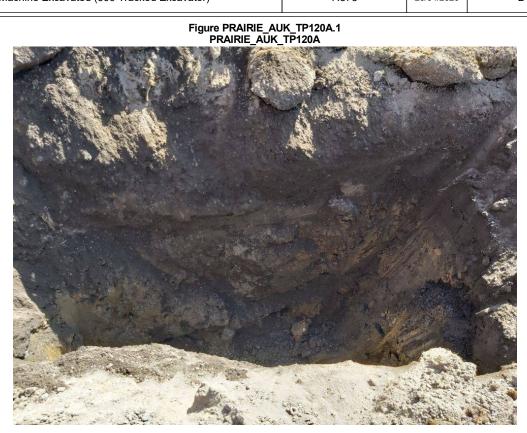
PRELIM3

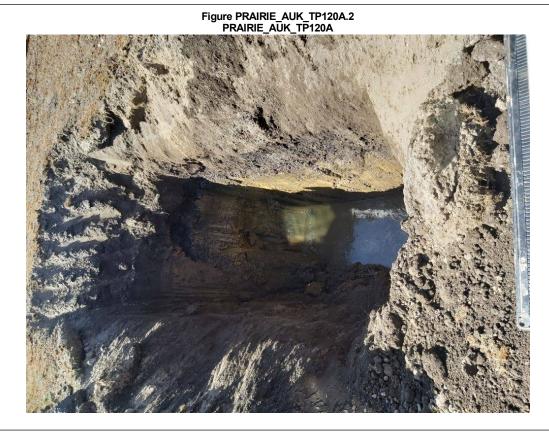
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP120A South Tees Development Corporation

E:454697.765 N:521513.778 Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3







## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP120A South Tees Development Corporation E:454697.765 N:521513.778

Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3



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## TRIAL PIT RECORD

PRELIM3

											-	
roject:			Prairie	Site Gr	ound Inv	estigatio	n Works				Expl	oratory Hole No.
lient:	South Tee	s Developmen	t Corpo	ration		Location	:	RAIRI	E_AUK_TP			
lethod (Equipm								54597.680 Nound Level (m):		36 Start Date:	Sheet:	
	Machine	Excavated (36	30 Trac	ked Exc	cavator)			8.21	3	09/04/2020		1 of 3
SAM	SAMPLES & TESTS							;	STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Description		
).40	J1					(0.90)	coarse	. Gravel is fi	ne to coars	ntly gravelly sa se subangular s%. Slag is ves	and incl	d is fine to udes red brick rey green white).
1.20 1.50 1.50 1.50 1.80 2.20 2.80 3.20 4.50	B2  J3  PID ES4  B5  J6  B7  J8  B9  J10  B11	<0.1ppm	<u></u>	3.71		(3.60)	MADE subanc 75-100 from c. and inc	gular to subr I%. Slag is v	rounded an resicular. Si low cobb	d includes sla light hydrocarl	g. Slag o bon odo	fine to coarse content is ur noted). re subangular
•		PLAN 2.80 Face A					JNDWAT strike at (	ER 0.90m BGL.				
Face D		Orientation 070° Face C		מ	1.60 ———	STABI Pit side		throughout e	xcavation.			
	ΔΠΠΙΤ	IONAL INFOR	MATIO	N		GENE	RAL RE	MARKS				
Sketch Diag			Sketch T			JEINE	. v il IVE					
Photograp	ohs:	Yes		See add								
	nsions in			For exp abbrev	lanation iations s	of symbo see Key S	ols and Sheets	Ch	ecked by:	Logged K. Russell-	l by: -Clamp	Contract No. 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP121 South Tees Development Corporation

E:454597.680 N:521503.836 Start Date: 09/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP121.1 PRAIRIE\_AUK\_TP121







## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP121 South Tees Development Corporation E:454597.680 N:521503.836 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 3 of 3

Figure PRAIRIE\_AUK\_TP121.3 PRAIRIE\_AUK\_TP121 - Spoil



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## TRIAL PIT RECORD

Status:-

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Project:			Prairie	Site Gr	ound Inv	estigatio	n Works		Exploratory Hole No.				
Client:	South Tees	s Development	t Corpo	ration		Location	:	P	RAIRIE_AUK_TP12				
Method (Equipn	ment):	<u> </u>					E:454506.312 N:521498.46 Ground Level (m):	Start Date:	Sheet:				
	Machine	Excavated (36	30 Trac	ked Exc	avator)		7.802	08/04/2020	1 of 3				
SAM	MPLES &	TESTS			ı	Г	STRATA						
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	С	Description					
0.40 0.80 1.00 1.00	J1 B2 PID ES3	<0.1ppm	<u></u>	6.60		(1.20)	nigh cobble content and pod sleeper. Gravel is fine cludes red brick, ntent is 0-25%. Slag is non odour noted).						
									st water ingress.				
		PLAN 2.50 Face A			<b>1</b>		INDWATER strike at 0.30m BGL (Heavy inflow	).					
Face D		Orientation  198°		Tai Ce D	1.70 —	STABI Pit side	LITY es stable throughout excavation.						
		Face C			J↓								
	ADDIT	IONAL INFORI	MATIO	N		GENE	RAL REMARKS						
Sketch Dia	ıgram:	Sk	etch Tal	Ken									
Photogra	phs:	Yes		See add shee									
	ensions in Scale 1:50			For expl	lanation iations s	of symbo	ols and Checked by:	Logged K. Russell	l by: Contract No. -Clamp 4251				

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP122 South Tees Development Corporation

E:454506.312 N:521498.464 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 2 of 3

Figure PRAIRIE\_AUK\_TP122.1 PRAIRIE\_AUK\_TP122







Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP122 South Tees Development Corporation E:454506.312 N:521498.464

Start Date: 08/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 7.802 3 of 3



Figure PRAIRIE\_AUK\_TP122.4 PRAIRIE\_AUK\_TP122 Sketch **PLAN VIEW** 198° At GL - Concrete foundation 1.30 D 1.20m BGL 1.70 В Made Ground 1.30 C 2.50 Notto scale All measurements in metres unless otherwise stated

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

Status:PRFI IM3

Prairie Site Ground Investigation Works    South Tees Development Corporation   Location:   Location:   E.454400.354.N.521497.995   South Tees Development Corporation   Samples   Samples						•••		· ····································		PRELIIVIS
South Tees Development Corporation  E454400.354 N.521487 995  Machine Excavated (380 Tracked Excavator)  SAMPLES & TESTS  Deep Type Test Test recent	Project:			Prairie	Site Gr	ound Inv	vestigatio	n Works		Exploratory Hole No.
SAMPLES & TESTS   Section   Sectio	Client:	South Tees	s Developmen	t Corpo	oration		Location	:	Р	RAIRIE AUK TP1
SAMPLES & TESTS  Dough Type Facust  Dough Type Facust Type Facust  Dough Type Facust Type Facust  Dough Type Facust Type F									.995	
Description    Description   Description   Description		Machine	Excavated (36	30 Trad	ked Exc	avator)				
MADE GROUND (Brown sandy gravel. Gravel is fine to coarse subangular and includes slag concerts, macadam and red with white).  7.36  8.00	SAN	MPLES &	TESTS			1		STRATA		
Sketch Diegram:    30	Depth	Type No		Water		Legend	Depth (Thickness)		Description	
Face C    Candificate   Candif	.50 .60	B2 PID	<0.1ppm	<u>‡</u>	7.36		<u> </u>	subangular and includes sla yellow brick. Slag content is white).	ng, concrete, ma 0-25%. Slag is	acadam and red and vesicular grey green
PLAN 3.30 Face A  Orientation 3.52* Face C  ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  Terminated at 2.80m BGL - due to brick structure.  GROUNDWATER Water strike at 0.60m BGL.  STABILITY PIt sides stable throughout excavation.  GENERAL REMARKS	.50	В4			MADE GROUND (Red and yellow refractory bricks) (Engineer notes bricks are stacked - possible struct					
ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  Water strike at 0.60m BGL.  STABILITY Pit sides stable throughout excavation.  GENERAL REMARKS								Terminated at 2.80m BGL - 0	due to brick stru	cture.
ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  STABILITY Pit sides stable throughout excavation.  GENERAL REMARKS			3.30			<u> </u>				
Sketch Diagram: No Sketch Taken	Face D				7 ac 66 B	2.20				
Sketch Diagram: No Sketch Taken		ADDITI	ONAL INFOR	MATIC	)N		GFNF	RAL REMARKS		
See additional	Sketch Dia									
Photographs: res sheets.	Photograp	phs:	Yes							

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP123 South Tees Development Corporation E:454400.354 N:521497.995

Start Date: 08/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.155 2 of 3

Figure PRAIRIE\_AUK\_TP123.1 PRAIRIE\_AUK\_TP123









## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP123 South Tees Development Corporation E:454400.354 N:521497.995 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 Ground Level (m): 8.155 3 of 3

Figure PRAIRIE\_AUK\_TP123.3 PRAIRIE\_AUK\_TP123 - Spoil



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Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

Status:PRFI IM3

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roject:		F	Prairie	Site Gr	ound Inv	estigation/	n Works			Exploratory Hole No.
lient:	outh Tee	s Development	Corpo	oration		Location		25 N:521454.	PI	RAIRIE_AUK_TP1
ethod (Equipm	ent): Machine	Excavated (36	) Trac	ked Exc	avator)		Ground Leve		Start Date: 08/04/2020	Sheet: 1 of 4
SAM	SAMPLES & TESTS						-	STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
10 20 00	J1 B2 J3	<0.1ppm		7.97		0.30	and plastic. Sa	ND (Grey blace	ck gravelly sand coarse. Gravel is	with fragments of metal s fine to coarse e, ash and sandstone).
50 50 50 20 50 50 50	B4 ES5 J6 HSV PID B7 ES8	32 (20)kPa <0.1ppm		5.27		(1.30)	Firm indistinct CLAY.		range brown mo	ottled grey slighty sandy
		PLAN					NDWATER			
e D		4.00 Face A		- race	100	ino gro	undwater inflow o	userved.		
Face		166°		α σ	0.70	STABI Pit side	LITY es stable througho	out excavation.		
	A 5	IONAL INTEGE					DAL B=11			
Sketch Diag		IONAL INFORM	IATIO			GENE	RAL REMARKS			
Photograp	ohs:	Yes		See add shee						
	nsions in			For expl	anation	of symbo	ls and heets	Checked by	: Logged K. Russell-	l by: Contract NoClamp 4251

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

## **TRIAL PIT RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation Location: PRAIRIE\_AUK\_TP124





Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP124 South Tees Development Corporation

E:454306.625 N:521454.373 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 3 of 4

Figure PRAIRIE\_AUK\_TP124.3 PRAIRIE\_AUK\_TP124 - Spoil



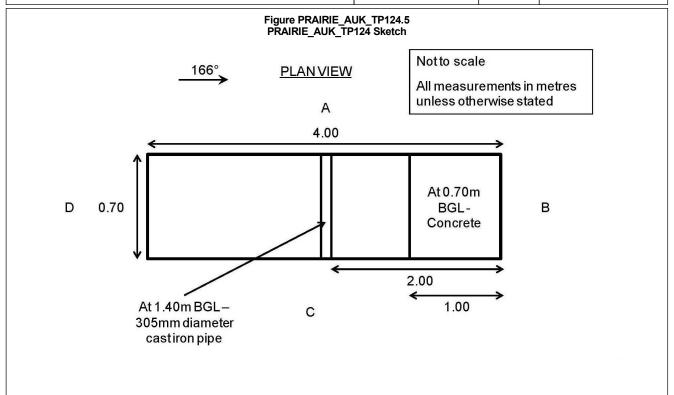
Figure PRAIRIE\_AUK\_TP124.4 PRAIRIE\_AUK\_TP124 - Spoil



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Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD PRELIM3 Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP124 South Tees Development Corporation E:454306.625 N:521454.373 Start Date: 08/04/2020 Method (Equipment): Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.269 Sheet: 4 of 4



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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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Œ				TR	IAL PI	T RECO	RD		PI	RELIM3		
Project:		Prairie	e Site Gro	ound Inv	estigatio	n Works			Exploi	atory Hole No.		
Client: So	uth Tees Developm	ent Corp	oration		Location: P					RAIRIE_AUK_TP12		
Method (Equipmer	nt): Machine Excavated	(360 Tra	cked Exc	avator)		Ground I	evel (m): 8.473	Start Date: 09/04/2020	Sheet:	1 of 2		
SAMF	PLES & TESTS					<u>'</u>	STRATA	•	•			
Depth	Type Test No Result	Water	Reduced Level	Legend	Depth (Thickness)			Description				
			8.27		0.20		OUND (Strong gr at 0.20m BGL - 0		ah atmuatia			
-	PLAN 6.65 Face A			<u> </u>	GROU No gro	INDWATER undwater inflo	w observed.					
Face D	Orientation 240° Face C	•	Tace	5.00	STABI Pit side	LITY ss and base st	able throughout e	xcavation.				
	ADDITIONAL INFO	ORMATIC	DN		GENF	RAL REMAR	KS					
Sketch Diagra		Sketch Ta				samples takei						
Photograph:	s: Yes		See add shee									
	sions in metres ale 1:50		For expl	anation iations s	of symbo ee Key S	ols and heets	Checked by	: Logged K. Russell	l by: -Clamp	Contract No. 4251		

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RC

Tel: 0191 387 4700 Fax: 0191 387 4710



## TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works

Exploratory Hole No.

Client:

South Tees Development Corporation

E:454246.923 N:521423.879

Method (Equipment):

Machine Excavated (360 Tracked Excavator)

PRAIRIE\_AUK\_TP125

E:454246.923 N:521423.879

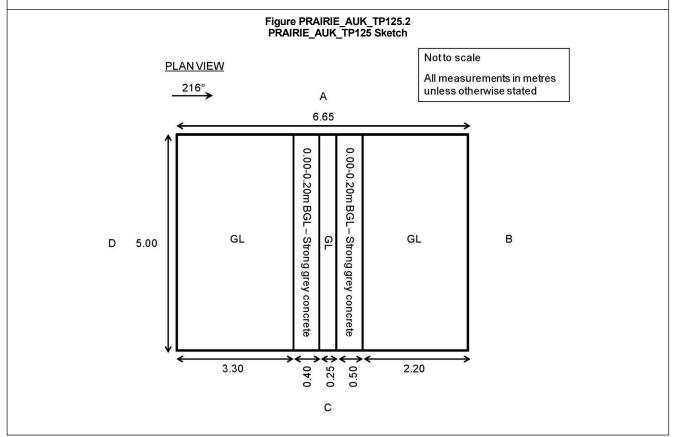
Ground Level (m):

8.473

Sheet:

09/04/2020
2 of 2





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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## TRIAL DIT DECORD

Status:-

Œ	TRIAL PIT RECORD									PRELIM3		
Project:		P	rairie Site Gı	round Inv	estigation	n Works			Explor	ratory Hole No.		
Client:	South Tees	s Development (	Corporation		Location		7.923 N:521427.2	PR	AIRIE	_AUK_TP125		
Method (Equipn	ment): Machine	Excavated (360	Tracked Ex	cavator)		Ground Le	evel (m): 8.619	Start Date: 09/04/2020	Sheet:	1 of 3		
SAM	MPLES &	TESTS				<u> </u>	STRATA	•	<u>'</u>			
Depth	Type No	Test Result	Neduced Level	Legend	Depth (Thickness)			Description				
0.10 0.20	J1 B2		7.42		(0.40) - 0.40 - (0.80) - 1.20	Gravel is fin macadam a MADE GRO (20mm)).	UND (Brown grate to coarse subarend ash). UND (Concrete subarend ash). UND (Concrete subarend ash). UND (Concrete subarend ash).	ngular and incl	ludes red l	brick, concrete,		
		PLAN 2.90		<b>→</b>		INDWATER undwater inflov	v observed.					
Face D		Orientation  060°  Face C		1.30 ———•	STABI Pit side		ghout excavation.					
	ADDIT	IONAL INFORM	ATION		GENE	RAL REMARI	(S					
Sketch Dia	gram:	No Ske	etch Taken									
Photogra	phs:	Yes	See add shee									
	ensions in Scale 1:50		For exp	lanation viations s	of symbo ee Key S	ols and heets	Checked by:	Logged K. Russell-	l by: -Clamp	Contract No. 4251		

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP125A South Tees Development Corporation

E:454257.923 N:521427.282 Start Date: 09/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.619 2 of 3





Figure PRAIRIE\_AUK\_TP125A.2 PRAIRIE\_AUK\_TP125a



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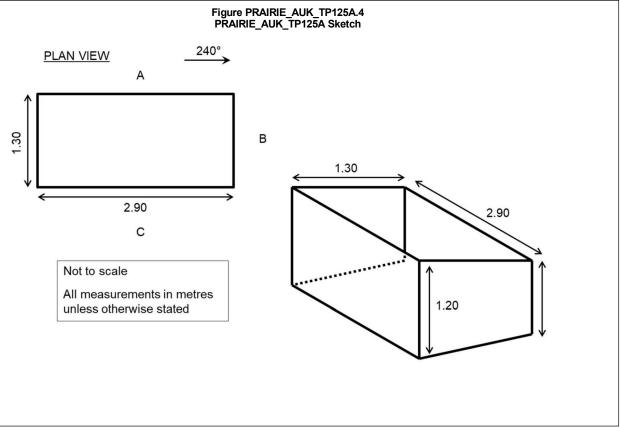
## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP125A South Tees Development Corporation E:454257.923 N:521427.282 Start Date: 09/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.619 3 of 3





## TRIAL PIT RECORD

PRELIM3

Project:											
			Prairie	Site Gr	ound Inv	estigatio				Explor	atory Hole No.
Client: S Method (Equipme	ent):	s Development Excavated (36	•		cavator)	Location		7.949 N:521411.23 evel (m): 8.749		RAIRIE Sheet:	_AUK_TP12 1 of 3
SAM	IPLES &	TESTS						STRATA	<u> </u>		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Г	Description		
0.20 0.40 1.40 1.80 2.60 2.60	J1 B2 J3 B4 ES5 PID	0.2ppm		6.05		(2.20)	wood and m subangular 0-25%). at c.0.50m E subsurface MADE GRC boulders wit subangular is 0-25%. S include 50-7 include 50-7 between c.0 and east fac	OUND (Brown black th fragments of me and includes slag lag is vesicular grey 75% vesicular grey 75% vesicular grey 0.50-2.70m BGL	to coarse. Graclinker and sl rete obstruction k red and yellotal. Gravel is and red and by green. Cob green slag. E green slag). concrete stru	avel is fine ag. Slag con. Possibow gravel, fine to coayellow brich bles are all soulders a cture surre	to coarse ontent is le walls of cobbles and arse angular to ck. Slag content ingular and re angular and counds the north west.
•		PLAN 3.50 Face A			<u> </u>		NDWATER groundwater se	eepage (water perch	ed on concrete	e base) at 2	2.70m BGL.
Face D		Orientation 000° Face C		Tace D	2.50	STABI Pit side		stable throughout ex	xcavation.		
Sketch Diag		IONAL INFORM	IATIOI				RAL REMAR Il pit extended	KS west by 2.00m due t	to concrete ob	struction at	0.50m BGL.
Photograp	hs:	Yes		See add							
	nsions in cale 1:50			For exp	lanation	of symbo	ols and heets	Checked by:	Logged D. Portsr		Contract No. 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

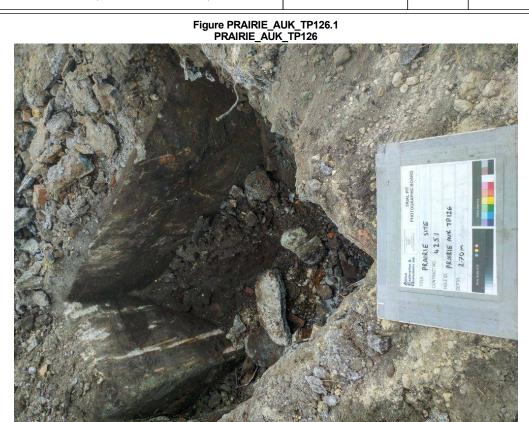
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP126 South Tees Development Corporation E:454177.949 N:521411.231

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 17/04/2020 2 of 3





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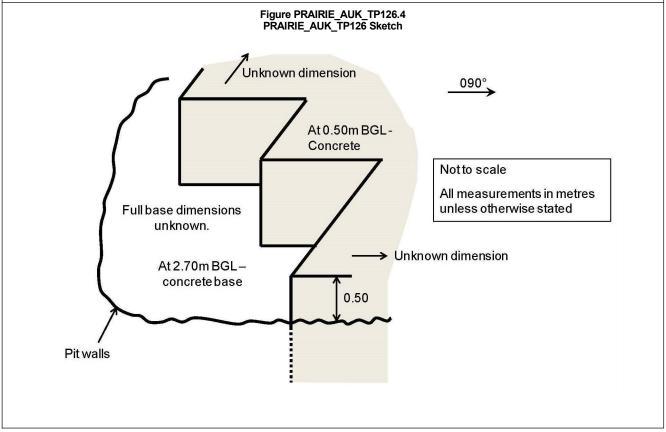
### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP126 South Tees Development Corporation E:454177.949 N:521411.231 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

Status:-

(S	TRIAL FIT RECORD								Exploratory Hole No.	
Project:										
Client:	South Tee	es Developmen	t Corpo	ration		Location	:	P	RAIRIE_AUK_TP127	
Method (Equipn		20 Bovolopinion					E:454315.017 N:52139 Ground Level (m):		Sheet:	
memou (Equipii	Machine Excavated (360 Tracked Excavator)						8.483	23/04/2020	1 of 3	
SAM	SAMPLES & TESTS					STRATA	4			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description		
0.10 0.20 0.30 0.30 0.60	J1 B2 ES3 PID J4 J5 PID B6	<0.1ppm	1	8.08 7.58 7.38 6.78		(0.40) - 0.40 (0.50) - 0.90 - 1.10 - (0.60) - 1.70	MADE GROUND (Brown of coarse. Gravel is fine to co includes slag, concrete, mo-25%. Slag is vesicular grand includes slag, red brid and include concrete and include concrete and include concrete with the manual of the manual o	parse subangular acadam and roarey green white). when sandy gravel metal. Gravel is fick and concrete. (red brick. Slag co.). grey green concrown sandy gravel oarse subangulate, slag and sand brick resicular grey gree.	with medium cobble ine to coarse subangular Cobbles are subangular content is 0-25%. Slag is ete or slag).  with medium cobble in to subrounded and stone. Cobbles are and sandstone. Slag een white).	
		PLAN					NDWATER			
		3.50 Face A			<b>†</b>	Water	strike at 1.70m BGL			
Face D		Orientation 310° Face C		CC CC CC	2.30	STABI Pit side	LITY es and base stable throughout	excavation.		
	ADDIT	IONAL INFOR	MATIO	N		GENE	RAL REMARKS			
Sketch Dia			etch Tal				ocated to PRAIRIE_AUK_TP1	27A.		
Photogra	phs:	Yes		See add shee						
	ensions in Scale 1:50			For expl	anation iations s	of symbo	ols and Checked be heets	by: Logged K. Russell	d by: Contract No. -Clamp 4251	

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### **TRIAL PIT RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation Corporation PRAIRIE\_AUK\_TP127





Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

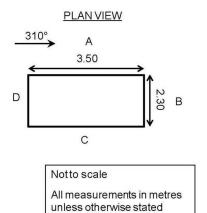
Client: Location: PRAIRIE\_AUK\_TP127 South Tees Development Corporation E:454315.017 N:521396.533

Start Date: 23/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.483 3 of 3



## Figure PRAIRIE\_AUK\_TP127.4 PRAIRIE\_AUK\_TP127 Sketch



Made Groundbrown grey 1.00 Made 0.2 Concrete Ground red brown 0.6

CROSS SECTION OF FACE D

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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## TRIAL PIT RECORD

PRELIM3

Project:			Prairie	Site Gr	ound Inv	estigatio/	n Wo	rks			Exploratory Hole No.
South Tees Development Corporation						Location: <b>F</b> E:454312.599 N:521393.254					AIRIE_AUK_TP12
Method (Equipment):  Machine Excavated (360 Tracked Excavator)								Ground Lev		Start Date: 23/04/2020	Sheet: 1 of 3
SAN	SAMPLES & TESTS								STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Description	
2.20 2.50 2.50 2.80 2.80	J1 B2 HSV ES3 PID	70 (34)kPa <0.1ppm		6.74		(0.40)	coa incl 0-2: MA con and con bet wal	rse. Grav udes slag 5%. Slag DE GROU tent and f includes tent is 0-2 ween c.0. l/foundation	el is fine to coan, concrete, maci, concrete, maci is vesicular grey JND (Red brown ragments of me red brick, concrete, Slag is ves 90-3.00m BGL	se subangular adam and road green white). n sandy gravel tal. Gravel is fi ete, slag and r icular grey gre Face D: Stro	ng grey concrete
		PLAN						/ATER			
		3.00 Face A			<b>†</b>	I No gro	oundwa	aler intlow	observed.		
Face D		Orientation  228°  Face C		a C G	- 1.50	STABI Pit side		l base stal	ole throughout exc	cavation.	
Sketch Dia		TIONAL INFORM	MATION			GENE (1) Rel	RAL locate	REMARK d from PR	S AIRIE_AUK_TP1	27.	
Photogra		Yes		See add							
	ensions ir Scale 1:5					of symbo			Checked by:	Logged K. Russell	l by: Contract No. -Clamp <b>4251</b>

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP127A





Figure PRAIRIE\_AUK\_TP127A.2 PRAIRIE\_AUK\_TP127A



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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP127A South Tees Development Corporation E:454312.599 N:521393.254 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 Ground Level (m): 8.644 3 of 3

Figure PRAIRIE\_AUK\_TP127A.3 PRAIRIE\_AUK\_TP127A - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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## TRIAL PIT RECORD

Status:-

(G					IN	IAL FI	TRECORD		PRELIM3	
Project:		ı	Prairie	Site Gro	ound Inv	estigatio	n Works		Exploratory Hole No.	
Client:	South Tees Development Corporation							Р	RAIRIE_AUK_TP1	
Method (Equipn							E:454012.262 N:521429.53 Ground Level (m):		Sheet:	
		Excavated (36	0 Trac	ked Exc	avator)		8.117	17/04/2020	1 of 3	
SAN	MPLES &	TESTS			i		STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	С	escription		
0.50 0.80 0.90 0.90	J1 B2 ES3 PID	0.9ррт		7.12 7.02		(0.75)	MADE GROUND (Brown sand fine to coarse and includes premedium subangular and include clinker).  MADE GROUND (Brown black pockets/lenses of soft to firm brick, coke, ash, clinker and slat 1.00m BGL pocket of greof pit. Gravel is fine to coarse with strong hydrocarbon/creos MADE GROUND (Firm brown between c.1.00-1.10m BGL running 90 degrees. Engineer trenched section of reworked of Terminated at 1.10m BGL - due	edominantly a des coke, sar k sandy grave crown clay. Sa gular and incag. Slag contay fine to coarangular and i ote odour.  mottled oran 100mm diam notes pipe piground.	ash. Gravel is fine to adstone, concrete and el with occasional and is fine to coarse. Itudes red and yellow itent is 0-25%). se angular gravel in west includes mudstone/shale ge clay).	
Face D		PLAN 3.00 Face A  Orientation 090° Face C		Ta acce U		Saturar seeping	NDWATER  ed strata (slight inflow) at 1.00m E g from contaminated mudstone po  LITY es and base stable throughout exca	cket into clay.	notes contaminated water	
		. 400 0			<b>」▼</b>					
	ADDIT	IONAL INFORM	MATIO	N		GENE	RAL REMARKS			
Sketch Dia	gram:	No Si	ketch Ta	aken						
Photogra	phs:	Yes		See add shee						
	ensions in Scale 1:50			For expl abbrevi	anation iations s	of symbo ee Key S	ls and Checked by:	Logged D. Portsr	I by: Contract No. 4251	

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP128 South Tees Development Corporation E:454012.262 N:521429.533

Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP128 South Tees Development Corporation

E:454012.262 N:521429.533 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3

Figure PRAIRIE\_AUK\_TP128.3 PRAIRIE\_AUK\_TP128 - Spoil







Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R0

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

Status:-

					•••			()		PRELIVIS
Project:		ı	Prairie	Site Gro	ound Inv	estigatio	n Works			Exploratory Hole No.
Client:	South Tees Development Corporation						:	RAIRIE_AUK_TP1		
Method (Equipr		Everyated (26)	O Troo	kod Evo	oveter)		E:453904 Ground L	4.211 N:521332.9 evel (m): 9.593	918 Start Date: 17/04/2020	Sheet:
		Excavated (36	) ITAC	T EXC	avalor)				17/04/2020	1013
SAI	MPLES &							STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.60 0.80 1.40 1.80 2.10 2.10	J1 B2 J3 B4 PID ES4A	<0.1ppm		9.39 9.14 8.59 8.29		(0.55) (0.55) 1.00 - 1.30 (1.00) - 2.30	fine to coars medium subclinker).  MADE GRO foundation/M MADE GRO content. San Gravel is fin brick, ash a green).  Soft to firm Firm and fris with silty san	se and includes popular and included DUND (Concrete. footing to the brice DUND (Grey brown dis fine to coarse to coarse suband clinker. Slag cand friable brown able brown very second coarse suband friable brown very second coarse and friable coarse	redominantly a udes coke, san Engineer note ks exposed ad on sandy grave se and includes ngular and includes ontent is 50-75 a grey mottled by	jacent). I with medium cobble s predominantly ash. ludes concrete, slag, red 5%. Slag is vesicular grey
		PLAN					INDWATER undwater inflo	w observed.		
Face D		3.50 Face A  Orientation 090° Face C		Tacce D	1.80	STABI	LITY	able throughout ex	cavation.	
	ADDIT	IONAL INFORM	1ATIO	N		GENE	RAL REMAR	KS		
Sketch Dia	ıgram:	No Si	ketch T	aken						
Photogra	phs:	Yes		See add shee						
	ensions in Scale 1:50			For expl abbrevi	anation	of symbo ee Key S	ols and heets	Checked by:	Logged D. Portsr	l by: Contract No.

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

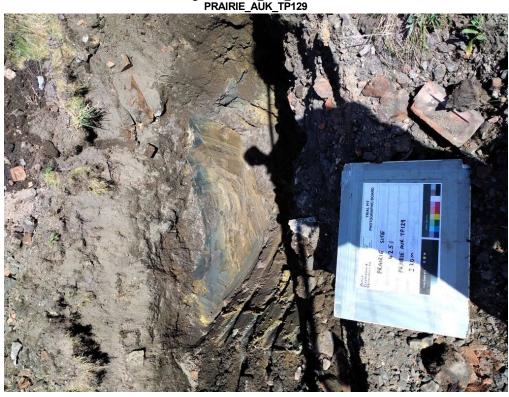
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP129 South Tees Development Corporation

E:453904.211 N:521332.918
| Ground Level (m): 9.593 | S Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP129.1 PRAIRIE\_AUK\_TP129







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP129 South Tees Development Corporation Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 17/04/2020 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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## TRIAL PIT RECORD

Status:-

(G					IN	IAL FI	T RECORD		PRELIM3		
Project:	Prairie Site Ground Investigation Works								Exploratory Hole No.		
Client:	ont: South Tees Development Corporation						:	P	RAIRIE_AUK_TP13		
		- Development		Tallon			E:453879.368 N:521335.5		Sheet:		
Metrioa (Equipi	thod (Equipment): Machine Excavated (360 Tracked Excavator)						9.144	17/04/2020	1 of 3		
SAM	SAMPLES & TESTS					í	STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	ı	Description			
0.20 0.30 0.80 0.90 1.00 1.40 1.80	J1 B2 J3 B4 ES4A PID J5 B6	1.0ppm		9.04 8.74 8.14	X X X X X X X X X X X X X X X X X X X	(1.40) 	fine to coarse and includes pr coarse subangular and includ clinker).  MADE GROUND (Grey brown content. Sand is fine to coarse Gravel is fine to coarse subar brick, ash and clinker. Cobble content is 50-75%. Slag is ver MADE GROUND (Brown blad and includes predominantly a and includes ash, clinker, cok Slag is vesicular grey green). Firm and friable brown sandy	edominantly a es coke, sand n sandy grave e and include: a gular and inc sare angular grey guk sandy grave sh. Gravel is e and slag. S	ash. Gravel is fine to distone, concrete and with medium cobble is predominantly ash. lludes slag, concrete, red and include slag. Slag reen).  bl. Sand is fine to coarse fine to coarse subangular lag content is 25-50%.		
		PLAN 3.50			<u> </u>		INDWATER undwater inflow observed.				
Face D		Face A  Orientation 090°  Face C		race B	1.80	STABI Pit side	LITY es and base stable throughout exc	avation.			
	ADDIT	IONAL INFORM	1ATIO	N		GENE	RAL REMARKS				
Sketch Dia	gram:	No Si	ketch Ta	aken							
Photogra	phs:	Yes		See add shee							
	ensions in Scale 1:50			For expl	anation	of symbo	ols and Checked by:	Logged D. Portsi	d by: Contract No. mouth 4251		

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP130 South Tees Development Corporation

E:453879.368 N:521335.549 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP130.1 PRAIRIE\_AUK\_TP130







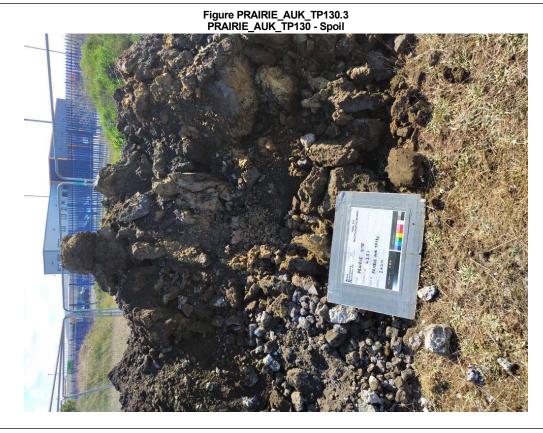
# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP130 South Tees Development Corporation E:453879.368 N:521335.549 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 17/04/2020 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works **Exploratory Hole No.** Client: Location: PRAIRIE\_AUK\_TP131 South Tees Development Corporation E:454999.256 N:521391.908 Ground Level (m): 8.711 Method (Equipment) Start Date: Machine Excavated (360 Tracked Excavator) 02/04/2020 1 of 3 **SAMPLES & TESTS STRATA** Water Reduced Depth Depth Description MADE GROUND (Grass over brown sandy gravelly topsoil. Gravel is (0.50) fine to coarse subangular and includes brick, slag and concrete). 0.20 J1 0.40 B2 MADE GROUND (Black grey sandy gravel with medium cobble content. Gravel is fine to coarse subangular to subrounded and includes slag, red brick and ash. Slag content is 75-100%. Slag is vesicular grey green white. Cobbles are subangular and include brick 1.00 J3 and cemented slag). from c.0.50-1.20m BGL ... partially cemented slag fill material. (2.00)1.50 B4 ES5 PID 1.80 1.80 <0.1ppm MADE GROUND (Firm grey mottled orange brown slightly sandy 2.60 J7 2.80 2.80 HSV 45 (20)kPa (Possibly Natural Ground). -<del>(</del>1.00) B8 Firm indistinctly laminated grey mottled orange brown slightly sandy 3.60 CLAY. 3.80 3.80 HSV 59 (34)kPa <del>(</del>1.00) Complete at 4.50m BGL. **PLAN GROUNDWATER** No groundwater inflow observed. 2.90 Face A Face Face D Orientation .60 166° **STABILITY** Faces A and C unstable from 1.20m BGL. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: Yes sheets. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: Contract No. All dimensions in metres K. Russell-Clamp 4251 Scale 1:50

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP131 South Tees Development Corporation E:454999.256 N:521391.908 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 02/04/2020 2 of 3





Figure PRAIRIE\_AUK\_TP131.2 PRAIRIE\_AUK\_TP131



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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP131 South Tees Development Corporation E:454999.256 N:521391.908 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 02/04/2020 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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## TRIAL PIT RECORD

Status:-PRFI IM:

<b>(3</b>					TRI	IAL PI	IT RECORD	PRELIM3	
Project:			Prairie	Site Gr	ound Inv	estigatio	n Works	Exploratory Hole No.	
Client:	South Tee	RAIRIE_AUK_TP1							
Method (Equipr		e Excavated (36	0 Trac	ked Exc	avator)		E:454904.695 N:521395.723    Ground Level (m):   Start Date:   02/04/2020	Sheet: 1 of 4	
SAI	MPLES &	TESTS					STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
0.05	J1			8.66/ 8.56/		0.05/	MADE GROUND (Grass over brown sandy MADE GROUND (Weak grey concrete).	topsoil).	
0.50 1.00 1.30 1.30 1.50	J2 B3 PID ES4 J5	<0.1ppm				(2.15)	MADE GROUND (Grey sandy gravel with m and fragments of wood, metal, plastic and v coarse subangular to subrounded and inclu and ash. Slag content is 50-75%. Slag is ve Cobbles are subangular and include brick a at c.0.90m BGL engineer notes girder on	vire. Gravel is fine to des brick, concrete, slag esicular green grey. and slag).	
2.00	B6		<u></u>	6.41		- - - - - - 2.30	at c.1.80m BGL concrete boulder with rel	oar, 80mmx80mmx50mm.	
							at c.2.30m BGL concrete channel.  Terminated at 2.30m BGL - due to concrete	channel.	
ф Ф		PLAN 3.90 Face A Orientation		race	1		INDWATER strike at 1.90m BGL.		
Face D					2.80	STABI Face A	LITY a unstable throughout excavation.		
	ADDIT	IONAL INFOR	MATIO	N		GENE	RAL REMARKS		
Sketch Dia	agram:	Ske	etch Tal	«en					
Photogra	aphs:	Yes		See add shee		-			
	ensions in Scale 1:50	II		For expl	lanation of	of symbo	ols and Checked by: Logged K. Russell-	by: Contract NoClamp 4251	

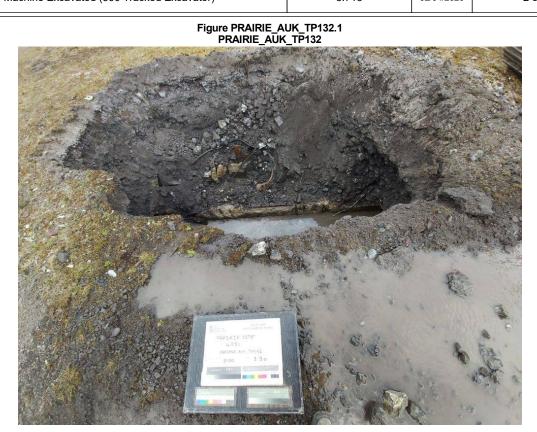
# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

TRIAL PIT RECORD PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP132 South Tees Development Corporation E:454904.695 N:521395.723

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 02/04/2020 2 of 4





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

## TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP132 |
E:454904.695 N:521395.723

Method (Equipment):

| Ground Level (m): | Start Date: | Sheet: |

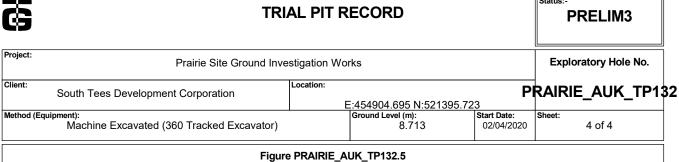
Figure PRAIRIE\_AUK\_TP132.3 PRAIRIE\_AUK\_TP132 - Spoil

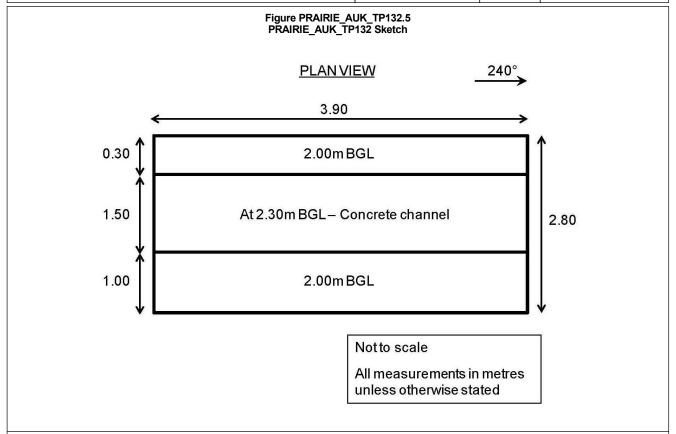


Figure PRAIRIE\_AUK\_TP132.4 PRAIRIE\_AUK\_TP132 - Reinstatement



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4700 Fax: 0197 375 999





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

Status:-DDEI IM3

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Project:		Prairi	e Site Gr	ound Inv	estigatio	n Works	Exploratory Hole No.
Client:	outh Tees Deve	lonment Corr	oration		Location	:	PRAIRIE_AUK_TP13
Method (Equipme						E:454897.504 N:521394.100   Ground Level (m):   Start D	
	Machine Excav	ated (360 Tra	cked Exc	cavator)			4/2020 1 of 4
SAMI	PLES & TESTS	i			î	STRATA	
Depth		rest X	Reduced Level	Legend	Depth (Thickness)	Descrip	otion
			8.49 8.39		0.05	MADE GROUND (Grass over brown MADE GROUND (Weak grey concre	
			7.04		1.50	MADE GROUND (Grey sandy grave and fragments of metal and wire. Gree to subrounded and includes brick, content is 50-75%. Slag is vesicular subangular and include red brick, coat c.0.50m BGL corroded metal cat c.0.90m BGL corroded metal cat	I with medium cobble content avel is fine to coarse subangular concrete, slag and ash. Slag green grey. Cobbles are concrete and slag). able. able. ed black slightly sandy slightly e subangular and includes coal).
	Pl	LAN				NDWATER undwater inflow observed.	
<b>•</b>		80 ice A		1	, to gio		
Face D	_ 2	ntation 40° →	ace D		STABI Pit side	LITY es stable throughout excavation.	
	Fa	ice C		J↓			
	ADDITIONAL	INFORMATION	DN		11 -	RAL REMARKS	
Sketch Diagr	am:	Sketch Ta	aken			samples taken. ncrete structures in pit - refer to sketch/ph	notos for further information
Photograph	ns:	Yes	See add				
	sions in metres		For exp	lanation	of symbo	ols and Checked by: K. F	Logged by: Contract No. Russell-Clamp 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP132A South Tees Development Corporation

E:454897.504 N:521394.100 Start Date: 02/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4

Figure PRAIRIE\_AUK\_TP132A.1 PRAIRIE\_AUK\_TP132A







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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP132A South Tees Development Corporation

E:454897.504 N:521394.100 Start Date: 02/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4

Figure PRAIRIE\_AUK\_TP132A.3 PRAIRIE\_AUK\_TP132A

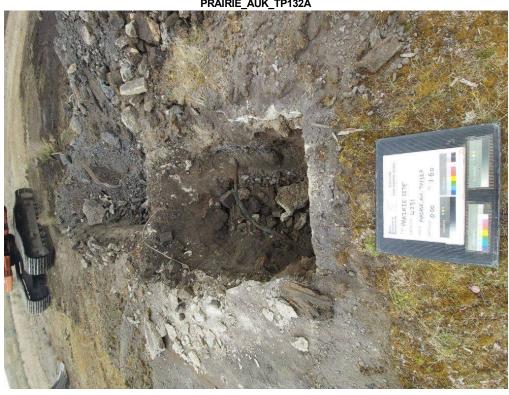
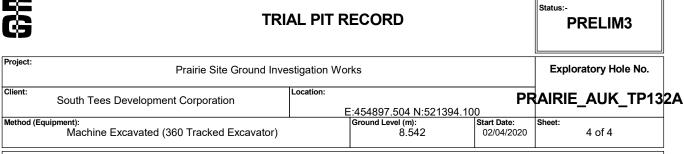
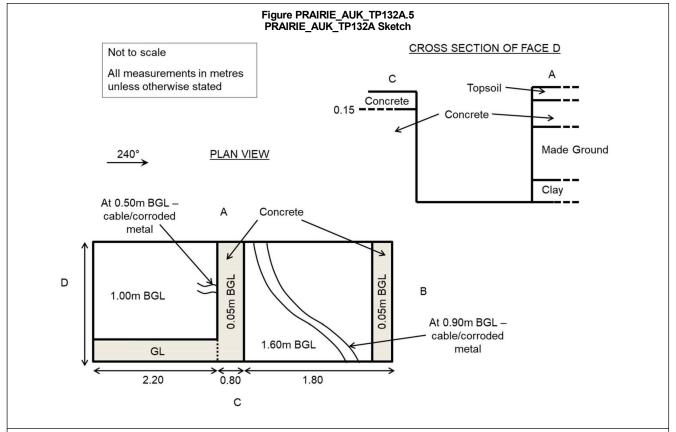


Figure PRAIRIE\_AUK\_TP132A.4 PRAIRIE\_AUK\_TP132A - Spoil



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# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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## TRIAL DIT DECORD

Status:-

Œ	Prairie Site Ground Investigation Works							PRELIM3  Exploratory Hole No.	
Project:									
Client:	South Tees Development Corporation Location: PI					RAIRIE_AUK_TP13			
Method (Equipm	nent):						E:454796.469 N:521395.95	Start Date:	Sheet:
		Excavated (36	Trac	T EXC	avalor)		8.893	22/04/2020	1 of 3
SAN	/IPLES &						STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	D	escription	
0.20 0.20 0.50 0.50 0.70 0.90 0.90 1.00 1.50 1.50 1.50 2.00	51 D	<0.1ppm <0.1ppm <0.1ppm 41 (22)kPa 71 (18)kPa <0.1ppm		8.79 8.09 7.69 6.89		(0.70)  (0.70)  (0.80)  (0.80)  (0.80)  (0.80)	at c.0.10m BGL 4 No. subar Soft to firm dark brown mottled CLAY. Gravel is fine to coarse Slight organic odour noted. Firm orange brown mottled gre	clayey grave Gravel is fine sh, slag, mac Blag is vesicul ngular concre I grey slightly subangular a	to coarse subangular and adam and refractory lar grey green white). te boulders. sandy slightly gravelly and includes mudstone.
		PLAN 2.40 Face A			<u> </u>		INDWATER undwater inflow observed.		
Face D		Orientation 002° →		TACE B	1.70	STABI Pit side	LITY es and base stable throughout exca	avation.	
	ADDIT	TONAL INFORM	OITAN	N		GENE	RAL REMARKS		
Sketch Diag	gram:	No S	ketch Ta	aken					
Photograp	ohs:	Yes		See add shee					
	nsions in Scale 1:50			For expl abbrevi	anation	of symbo see Key S	ols and Checked by:	Logged K. Russell-	l by: Contract NoClamp 4251

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

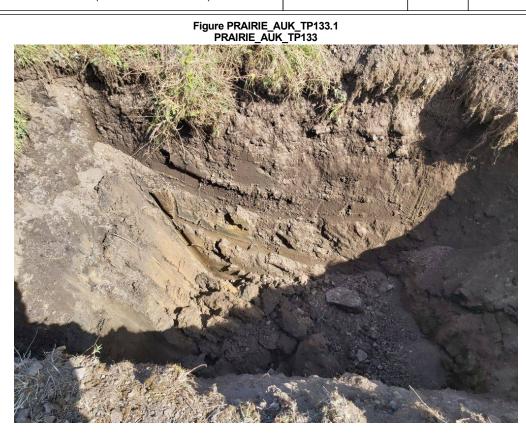
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP133 South Tees Development Corporation E:454796.469 N:521395.958

Start Date: 22/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.893 2 of 3





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP133 South Tees Development Corporation E:454796.469 N:521395.958 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 Ground Level (m): 8.893 3 of 3





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R0

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

PRELIM3

7										I KELIWIS
ject:		ı	Prairie	Site Gr	ound Inv	estigation	n Works			Exploratory Hole No.
nt:	South Tees Development Corporation						PI	RAIRIE_AUK_TP1		
nod (Equipm		•						702.950 N:521396 d Level (m):	.264 Start Date:	Sheet:
		Excavated (36	0 Trac	ked Exc	avator)			8.709	20/04/2020	1 of 3
SAM	IPLES &	TESTS						STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description  MADE GROUND (Black brown sandy gravel with medium of boulder content and fragments of wood and metal. Gravel is coarse subangular to subrounded and includes red brick, or ash and refractory bricks. Cobbles and boulders are subangulated concrete and red and yellow brick).  between 0.70-1.30m BGL concrete slab in west of pit. poold floor.			
	J1 PID B2 ES3	<0.1ppm				(1.30)				metal. Gravel is fine to des red brick, concrete, ders are subangular and
	J4 HSV PID B5 ES6 PID	<0.1ppm 69 (18)kPa <0.1ppm <0.1ppm		7.41		(1.30)		iff thinly laminated n fine yellow brown		nottled grey slightly sandy on the laminae.
	J9 HSV PID	84 (28)kPa <0.1ppm		6.11	<del></del>	2.60	Complete	at 2.60m BGL.		
		PLAN					NDWATER undwater inf	R low observed.		
		3.00 Face A			<b>1</b>	l to gro	andwater iiii	iow observed.		
Face D		Orientation 010° →		T ace	1.30	STABI Pit side		stable throughout e	excavation.	
		Face C			<b>」</b> ↓					
	ADDIT	IONAL INFORM	ИАТІО	N		GENE	RAL REMA	RKS		
ketch Diag	ram:	No Si	ketch T	aken						
Photograp	hs:	Yes		See add shee						
	nsions in cale 1:50		<u> </u>	For exp	lanation	of symbo see Key S	ols and heets	Checked by	/: Logged K. Russell-	

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP134 South Tees Development Corporation E:454702.950 N:521396.264

Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





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### TRIAL PIT RECORD

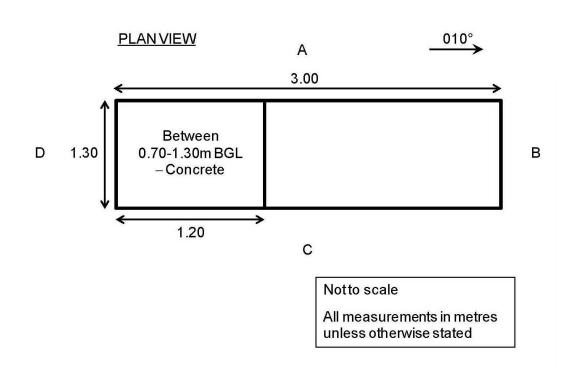
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP134 South Tees Development Corporation E:454702.950 N:521396.264 Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3



Figure PRAIRIE\_AUK\_TP134.4 PRAIRIE\_AUK\_TP134 Sketch



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### TRIAL PIT RECORD

Status:-

(G	Prairie Site Ground Investigation Works						Exploratory Hole No.			
Project:										
Client:	South Tees Development Corporation				RAIRIE_AUK_TP13					
Method (Equipr		- Bovolopinion					E:454599.377 N:521402 Ground Level (m):		Sheet:	
metriou (Equipi		e Excavated (36	60 Trac	ked Exc	avator)		8.257	15/04/2020	1 of 3	
SAI	MPLES &	TESTS					STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description		
0.05  1.00  1.20 1.30 1.30 1.50 1.80 2.00 2.30  2.70 2.80 2.90	J1  J2  B3  J4  ES5 PID  B6  HSV  J7  B8  J9  HSV B10	<0.1ppm 70 (22)kPa 70 (20)kPa	1	7.16 6.66 5.76		(1.00) - 1.10 (0.50) - 1.60 - (0.90) - 2.50 - (0.50)	MADE GROUND (Brown sandy topsoil).  MADE GROUND (Black brown sand and content and fragments of wood and meta Gravel is fine to coarse subangular to sub brick, concrete and slag. Cobbles are sub brick and concrete. Slag content is 0-25% green white).  MADE GROUND (Black sandy gravel wit fragments of wood, paper, tile, glass and coarse subangular to subrounded and incontent is 0-25%. Slag is vesicular grey grid Firm light orange brown sandy CLAY.		I. Sand is fine to coarse. prounded and includes red congular and include red co. Slag is vesicular grey in high cobble content and metal. Gravel is fine to cludes brick, concrete, slag lude coal and slag. Slag reen white).	
		PLAN				GROU	INDWATER			
		2.70 Face A			<b>†</b>		strike at 1.10m BGL			
Face D		Orientation 332°		a Ce D	1.80	STAB Pit side	LITY es and base stable throughout e	excavation.		
		i ace c			<b>」</b> +					
	ADDIT	IONAL INFOR	MATIO	N		GENE	RAL REMARKS			
Sketch Dia	agram:	No S	Sketch T	aken						
Photogra	aphs:	Yes		See add shee						
	ensions in Scale 1:50			For exp	lanation	of symbosee Key S	ols and Checked by	y: Logged K. Russell	d by: Contract NoClamp 4251	

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## TRIAL PIT RECORD

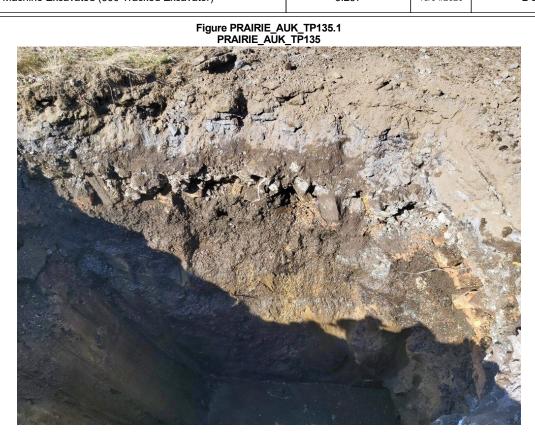
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP135 South Tees Development Corporation E:454599.377 N:521402.034

Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP135 South Tees Development Corporation E:454599.377 N:521402.034 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 15/04/2020 3 of 3

Figure PRAIRIE\_AUK\_TP135.3 PRAIRIE\_AUK\_TP135 - Spoil



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### TRIAL PIT RECORD

Status:-

(S	INIAL FIT RECORD P								PRELIM3
Project:			Exploratory Hole No.						
Client:	South Tee	s Developmen	t Corpo	ration		Location	:	Р	RAIRIE_AUK_TP136
Method (Equipn							E:454510.702 N:521391.84		Sheet:
wethou (Equiph		Excavated (36	30 Trad	ked Exc	avator)		7.689	15/04/2020	1 of 3
SAM	MPLES &	TESTS				i	STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
0.40 0.60 0.80 0.80 1.00 1.50 1.50 2.00 2.40 2.50 2.50 2.90	J1 B2 ES3 PID J4 ES5 B6 HSV J7 J8 B9 HSV ES10 PID	<0.1ppm  40 (18)kPa  67 (16)kPa  <0.1ppm	<b>1</b>	7.64/ 7.44 6.84 5.59		(1.05) (1.25) (1.00) (1.25) (1.00) (1.00)	MADE GROUND (Grass over MADE GROUND (Strong fine diameter)).  MADE GROUND (Grey grave subrounded and includes slag vesicular grey white. Sulphuro MADE GROUND (Soft to firm sandy clay). from c.0.85m BGL brick striwater ingress).  Firm to stiff grey brown slightly.	grey reinforce  I. Gravel is fing. Slag contended successions odour note friable and defended to the content of	ed concrete (10mm  ne to coarse subangular to nt is 75-100%. Slag is ed). essicated burnt orange not confirmed due to
		PLAN					NDWATER strike at 0.30m BGL.		
Face D		2.30 Face A  Orientation 254°  Face C		n CC CC	1.00	STABI Pit side	LITY s and base stable throughout exc	avation.	
	ADDIT	IONAL INFOR	MATIO	N		GENE	RAL REMARKS		
Sketch Dia			Sketch T			JUNE	TALE INCHINIO		
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50			For expl	lanation iations s	of symbo ee Key S	ols and Checked by:	Logged K. Russell	d by: Contract NoClamp 4251

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

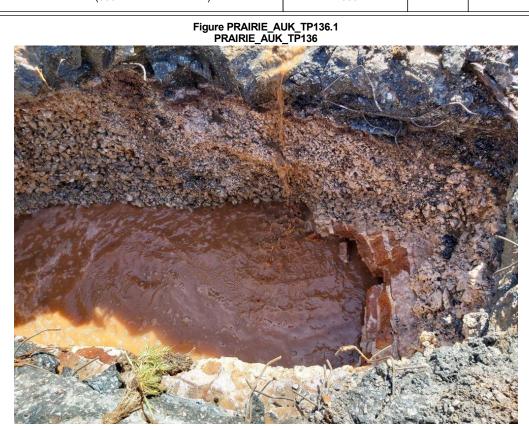
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP136 South Tees Development Corporation

E:454510.702 N:521391.846 Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





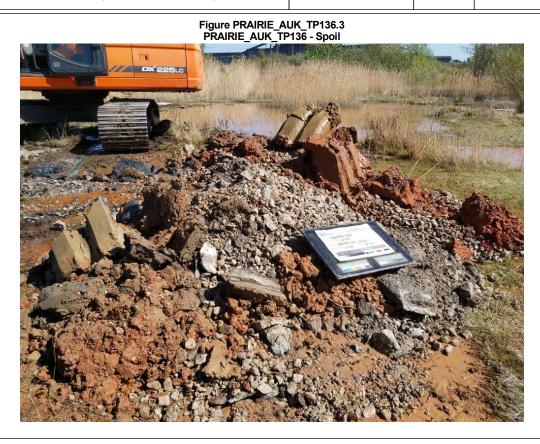


### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP136 South Tees Development Corporation E:454510.702 N:521391.846

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 15/04/2020 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works **Exploratory Hole No.** Client: Location: PRAIRIE\_AUK\_TP137 South Tees Development Corporation E:454392.936 N:521389.947 Method (Equipment): Ground Level (m): 7 844 Start Date: Machine Excavated (360 Tracked Excavator) 15/04/2020 1 of 6 **SAMPLES & TESTS STRATA** Nater Reduced Depth Depth Description MADE GROUND (Grass over black sandy slightly gravelly topsoil 0.10 0.20 1(0.50) with fragments of metal, metal pipes and plastic pipe. Gravel is fine to coarse subangular and includes concrete and brick). at c.0.10m BGL ... base of concrete drainage channel. 0.60 J3 MADE GROUND (Black brown slightly clayey sandy gravel with high cobble and boulder content and fragments of metal, metal pipe and (0.95) plastic pipe. Gravel is fine to coarse subangular to subrounded and 1.00 B4 includes red brick, concrete and slag. Cobbles are subangular and includes brick and concrete. Slag content is 0-25%. Slag is vesicular 1.30 1.30 <0.1ppm grey green white). at c.0.50m BGL ... top of covered drainage channel. at c.0.80m BGL ... 250mm diameter clay pipe running 315 degrees. 1.60 J6 Firm thinly laminated grey brown sandy CLAY with fine yellow sand 2.00 2.00 dusting on the laminae. (1.45)HSV 48 (18)kPa at c.1.80m BGL ... 150mm diameter clay pipe running 315 degrees. at c.2.00m BGL ... 250mm diameter clay pipe running 315 degrees. 2.60 J8 Complete at 2.90m BGL. **PLAN GROUNDWATER** Water strike at 0.50m BGL 8.80 Face A Face D Face Orientation 2.00 000° **STABILITY** Pit sides and base stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS (1) Refer to following sketch for further details. Sketch Diagram: Sketch Taken See additional Photographs: Yes sheets. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: Contract No. All dimensions in metres K. Russell-Clamp 4251 Scale 1:50

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Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL
Tel: 01971 387 4700 Fax: 01971 387 4710
Tel: 01972 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP137 South Tees Development Corporation

E:454392.936 N:521389.947 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 15/04/2020 2 of 6

Figure PRAIRIE\_AUK\_TP137.1 PRAIRIE\_AUK\_TP137







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### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

Client: South Tees Development Corporation Corporation PRAIRIE\_AUK\_TP137

> Figure PRAIRIE\_AUK\_TP137.3 PRAIRIE\_AUK\_TP137



Figure PRAIRIE\_AUK\_TP137.4 PRAIRIE\_AUK\_TP137



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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP137 South Tees Development Corporation E:454392.936 N:521389.947

Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 4 of 6





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works

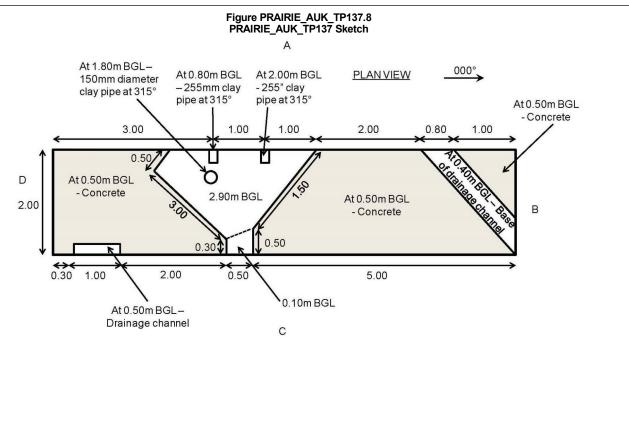
Client: South Tees Development Corporation

Client: E:454392.936 N:521389.947

Exploratory Hole No.

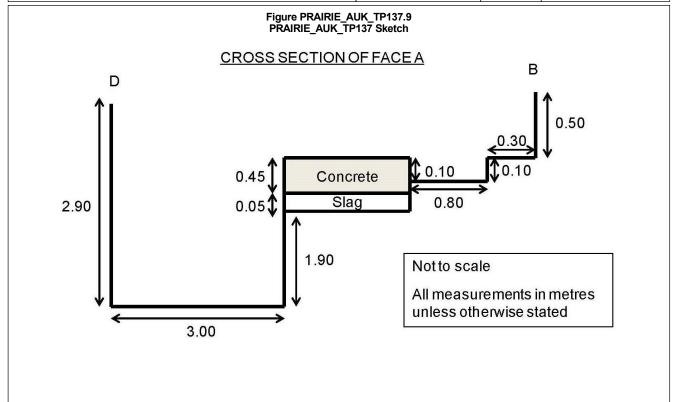
PRAIRIE\_AUK\_TP137





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#### TRIAL PIT RECORD PRELIM3 Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP137 South Tees Development Corporation E:454392.936 N:521389.947 Start Date: 15/04/2020 Method (Equipment): Machine Excavated (360 Tracked Excavator) 6 of 6



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

Status:-

(G	PRELIM3								
Project:			Exploratory Hole No.						
Client:	South Tee	es Development	Corpo	ration		Location	:	Р	RAIRIE_AUK_TP13
Method (Equipr							E:454298.480 N:521339.71	4 Start Date:	Sheet:
metriou (Equipi	Machine	e Excavated (36	0 Trac	ked Exc	cavator)		7.958	09/04/2020	1 of 3
SAI	MPLES &	TESTS					STRATA	·	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	С	Description	
0.50 1.00 1.20 1.20 1.50 2.00	J1  B2 ES3 PID J4  B5	<0.1ppm		5.36		2.60	MADE GROUND (Brown grav fragments of metal and plastic to coarse subangular and include re at c.0.50m BGL slab of condat c.2.00m BGL slab of red at c.2.20m BGL slab of red at c.2.20m BGL slab of red at c.2.60m BGL slab of red at	<ul> <li>Sand is fine udes red brick d brick and corete, possible</li> <li>bricks.</li> <li>with rebar.</li> <li>bricks.</li> </ul>	to coarse. Gravel is fine and concrete. Cobbles oncrete). e old floor.
		PLAN					INDWATER		
<u></u>		4.50			<b>→</b>	III INO Gro	undwater inflow observed.		
Face D		Face A  Orientation  170°  Face C		a Ce D	3.50	STABI Pit side	LITY es and base unstable throughout e	xcavation.	
	100	CONTACT THE CONTACT	447:5	N.1		]	DAL DEMARKS		
01		TONAL INFORM				GENE	RAL REMARKS		
Sketch Dia	phs:	Yes	xetch T	See add shee	ts.		Chacked by	Logges	Lhy: Contract No.
	ensions in Scale 1:50			For exp abbrev	lanation iations s	of symbo	ols and Checked by:	Logged K. Russell	I by: Contract No. 4251

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

# TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation PRAIRIE\_AUK\_TP138

> Figure PRAIRIE\_AUK\_TP138.1 PRAIRIE\_AUK\_TP138



Figure PRAIRIE\_AUK\_TP138.2 PRAIRIE\_AUK\_TP138 - Bouders





### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP138 South Tees Development Corporation E:454298.480 N:521339.714 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 3 of 3



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### TRIAL PIT RECORD

Status:-

(G	PRELIM3								
Project:			Exploratory Hole No.						
Client:	South Tee	es Development	Corno	ration		Location	:	P	RAIRIE_AUK_TP139
Method (Equipr		23 Development	Обірс	Tation			E:454375.942 N:521348.42		Sheet:
Metrioa (Equipi		e Excavated (36	0 Trac	ked Exc	avator)		8.365	16/04/2020	1 of 3
SAI	MPLES &	TESTS					STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	ι	Description	
0.50 0.80 1.10 1.10 1.10 1.10	J1 B2 J3 ES4 B5 PID	<0.1ppm		7.37		(1.00)	MADE GROUND (Brown slight content and fragments of met. Gravel is fine to coarse subant concrete, slag and macadam. Concrete and macadam. Slag grey green white). If on c.0.40m BGL Face A: from c.0.50m BGL Face C: MADE GROUND (Black clayer cobble sized pockets of firm late coarse. Gravel is fine to coarse burnt/chemical odour noted). at c.1.20m BGL concrete, part Terminated at 1.20m BGL - during the coarse coarse.	al and glass. Sigular to subro Cobbles are content is 0-2 concrete. concrete. By gravelly saraminated blace subangular possible old flo	Sand is fine to coarse. bunded and include subangular and include 25%. Slag is vesicular  and with coarse gravel to k silt. Sand is fine to and includes ash. Slight
		PLAN					NDWATER		
		3.00 Face A			<u></u>	No gro	undwater inflow observed.		
Face D		Orientation 266° Face C		n ace	2.40	STABI Pit side	LITY es and base stable throughout exc	avation.	
	ADDIT	TIONAL INFORM	MATIO	N		GENF	RAL REMARKS		
Sketch Dia			etch Tal				ocated to PRAIRIE_AUK_TP139A	Α.	
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50			For exp	lanation iations s	of symbo ee Key S	ols and Checked by:	Logged K. Russell	l by: Contract NoClamp 4251

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

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### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation PRAIRIE\_AUK\_TP139

> Figure PRAIRIE\_AUK\_TP139.1 PRAIRIE\_AUK\_TP139





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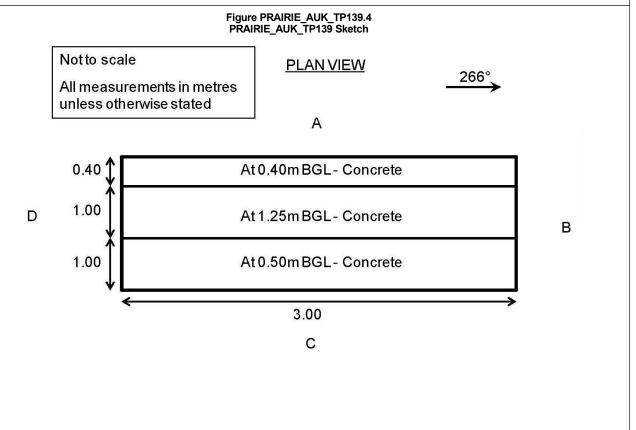
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP139 South Tees Development Corporation E:454375.942 N:521348.422 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3





					TR	IAL PI	TR	ECORD		Status:-	RELIM3	
oject:			Prairie	Site Gr	ound Inv	estigation/	n Wo	rks		Exploratory Hole No.		
ient:	South Tees	Development	Corpo	ration		Location		E:454376.105 N:521344.32		RAIRIE_AUK_TP1:		
ethod (Equipn		Excavated (36	0 Trac	ked Exc	avator)			Ground Level (m): 8.406	Start Date: 16/04/2020	Sheet:	1 of 3	
SAN	IPLES & T	ESTS						STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description			
				8.11		0.30	sub con at c	netal and glass. Sand is fin angular to subrounded and tent is 0-25%. Slag is vesi :0.30m BGL concrete, p minated at 0.30m BGL - du	d includes cor cular grey gre ossibly an old	ncrete and en white). I floor.	slag. Slag	
Face D	_	PLAN 2.50 Face A  Orientation 269°			2.20		undwa	/ATER ater inflow observed.				

	ADD	ITIONAL INFORM	MATION	GENERAL REMAR			
	Sketch Diagram:	No S	Sketch Taken	(1) Relocated from Pl (1) Relocated to PRA (3) No samples taker			
	Photographs:	Yes	See additional sheets.				
- 1					Observation of his in	I ammad bus	C = 1-44

Contract No. **4251** Logged by: K. Russell-Clamp All dimensions in metres Scale 1:50 For explanation of symbols and abbreviations see Key Sheets Checked by:

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

# TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP139A South Tees Development Corporation

E:454376.105 N:521344.320 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP139A.1 PRAIRIE\_AUK\_TP139A









### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP139A South Tees Development Corporation E:454376.105 N:521344.320 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.406 3 of 3

Figure PRAIRIE\_AUK\_TP139A.3 PRAIRIE\_AUK\_TP139A - Spoil



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### TRIAL PIT RECORD

PRELIM3

Project:			Drairio	Sito Gr	ound In	vestigatio	n \//o	rke		Exploratory Hole No.
Client:			Prame	Site Gi	ourid iri	Location		iks		
Silone:	South Tee	s Developmen	Corpo	ration		Location		E:454375.664 N:521349.5		AIRIE_AUK_TP139
Method (Equip		Excavated (36	60 Trac	ked Exc	cavator)	<b>'</b>		Ground Level (m): 8.371	Start Date: 16/04/2020	Sheet: 1 of 3
SA	MPLES &	TESTS						STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.10 0.20 0.30 0.30	J1 B2 ES3 PID	<0.1ppm	<u></u>	7.87		(0.50) - 0.50 - 0.90 - 0.90 - (0.80)	with men Sub Col brid MA MA fine Col	tal. Sand is fine to coarse. rounded and includes corobles and boulders are suck and concrete).  DE GROUND (Strong gred DE GROUND)	Ider content ar Gravel is fine ncrete, refracto bangular and in y concrete). In sandy grave d includes red include red bri	nd fragments of wood and to coarse subangular to by brick and red brick. include red and yellow  I and cobbles. Gravel is brick and refractory brick. ick and refractory brick).
2.50	HSV	47 (16)kPa					Sof	t to firm thinly laminated g wn sand on the laminae. n c.2.00m BGL Face A	rey brown san	dy CLAY with fine yellow
3.00 3.10 3.30 3.30 3.50	J4 B5 ES6 PID HSV	<0.1ppm 77 (22)kPa		4.37		4.00		n c.3.50m BGL firm to s	stiff.	
		PLAN 5.20 Face A						/ATER at 0.90m BGL.		
Face D		Orientation 268° Face C		n ac e e	2.80	STAB Pit side		d base stable throughout ex	cavation.	
	ΔΠΠΙΤ	IONAL INFOR	ΜΔΤΙΩ	N		GENIE	RΔI	REMARKS		
Sketch Dia			etch Tal					REMARNS ons represent Face B. Refe	r to following sk	cetches for further details.
Photogra	aphs:	Yes		See add						
	ensions in Scale 1:50					of symbosee Key S			Logged K. Russell	l by: Contract No. -Clamp 4251

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP139B South Tees Development Corporation

E:454375.664 N:521349.513 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3









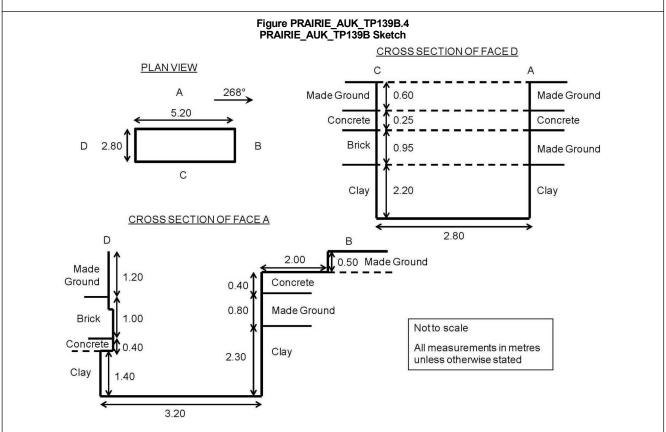
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP139B South Tees Development Corporation E:454375.664 N:521349.513 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3





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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

Status:-

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP140 South Tees Development Corporation E:455029.355 N:521363.743

Start Date: 23/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.765 2 of 3

Figure PRAIRIE\_AUK\_TP140.1 PRAIRIE\_AUK\_TP140





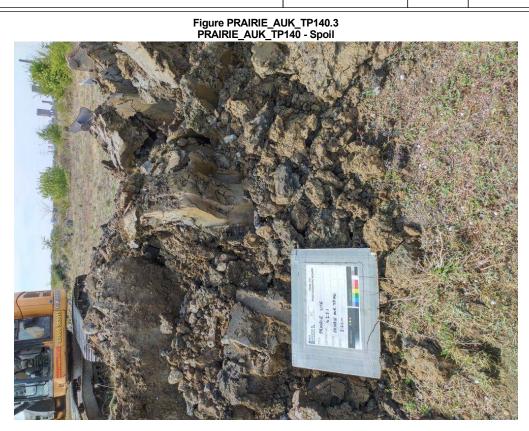




### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP140 South Tees Development Corporation E:455029.355 N:521363.743 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 Ground Level (m): 8.765 3 of 3



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### TRIAL PIT RECORD

PRELIM3

							TICELINIS
Project:	Prairie	e Site Gro	ound Inv	estigatio	Works		Exploratory Hole No.
Client: South Tees Development Corporation					E:454997.498 N:5213		RAIRIE_AUK_TP1
Method (Equipment):  Machine Exca	avated (360 Tra	cked Exc	avator)		Ground Level (m): 8.907	Start Date: 23/04/2020	Sheet: 1 of 3
SAMPLES & TESTS					STRA	TA	
Depth Type No	Test kesult	Reduced Level	Legend	Depth (Thickness)		Description	
0.80 B2 1.00 PID (	0.8ppm 0.6ppm 1.6ppm	8.71 8.01 6.91		(1.10)	is fine to coarse subanguared brick).  MADE GROUND (Grey beigh cobble content and and includes predominar and includes ash, clinker brick. Cobbles are angular and tragn includes predominantly a includes ash, clinker, col	ular and includes some black red class fragments on metantly ash. Gravel is it, coke, weak concar and include brick prown black red sanents of metal. Sanets of metal. Sanets Gravel is fine to ke, weak concrete include brick and brick wall section. Floose black clayey some black clayey some probably soot/cete base.	ayey sandy gravel with al. Sand is fine to coarse fine to coarse subangular rete and red and yellow k and concrete).  Industrial to coarse and to coarse subangular and and red and yellow brick. concrete).  Pit extended west to avoid./  Silt with  himney particles).
Or Or —	PLAN 3.10 Face A  ientation 090°  Face C  No Sketch		itional	STABI Pit side	NDWATER Indwater inflow observed.  LITY Is and base stable throughout	ut excavation.	
All dimensions in metro	es	For expl	anation	of symbo		l by: Logged	

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP141 South Tees Development Corporation E:454997.498 N:521308.610

Start Date: 23/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.907 2 of 3





### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP141 South Tees Development Corporation E:454997.498 N:521308.610 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 Ground Level (m): 8.907 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

Status:PRFI IM3

Prairie Site Ground Investigation Works    Coestion:	G	TRIAL PIT RECORD					
South Tees Development Corporation  E.45495.000 INS21286.804  Backline Excevated (360 Tracked Excevator)  SAMPLES & TESTS  Despri Type Tracked Type Tracked Excevator)  SAMPLES & TESTS  Despri Type Tracked Type Tracked Excevator)  SAMPLES & TESTS  Despri Type Tracked Excevator (300 Tracked Excevator)  SAMPLES & TESTS  STRATA  Description  Des	Project:	rairie Site Ground Inve	stigation Works	Exploratory Hole No.			
SAMPLES & TESTS   Septemble	Client: South Tees Development (	PRAIRIE_AUK_TP142					
Depth Type Tool Result S Processes and proce		Tracked Excavator)	Ground Level (m): Start Date:				
ADDITIONAL INFORMATION  B. 2  B. 2  B. 20  B. 3.0pm  PID 0.8ppm  PID 0.8ppm  B. 2  B. 3.0pm  PID 0.8ppm  PID 0.8pp	SAMPLES & TESTS		STRATA				
See additional   See	Depth Type Test No Result	Reduced Legend (T	Depth Thickness) Descriptio	n			
Saturated strata between 1.00-1.20m BGL (Slight inflow). Engineer notes water contains globules of non aqueous phase liquid.  STABILITY Pit sides and base stable throughout excavation.  ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken3  See additional	0.50 PID 0.8ppm 0.70 B2 0.90 ES3 1.00 PID 3.9ppm 1.50 ES4 1.50 PID 3.0ppm	7.90	is fine to coarse subangular and include slag. Slag is vesicular grey).  MADE GROUND (Grey brown black sa content and fragments of metal. Sand i predominantly ash. Gravel is fine to coast, clinker, coke, weak concrete and ash, clinker, coke, weak concrete and are angular and include brick, slag and 25-50%. Slag is vesicular green grey).  MADE GROUND (Concrete blocks (back MADE GROUND (Soft/loose black clay hydrocarbon/creosote/ammonia odour) (Engineer notes material is probably so at c.1.70m BGL concrete base.	es sandstone, concrete and indy gravel with high cobble s fine to coarse and includes arse subangular and includes ed and yellow brick. Cobbles concrete. Slag content is ckfilled)).  rey silt with . pot/chimney particles).			
	3.00 Face A  Orientation 000° Face C  ADDITIONAL INFORM  Sketch Diagram: No Ske	ATION tch Taken3 See additional	Saturated strata between 1.00-1.20m BGL (Slight i contains globules of non aqueous phase liquid.  STABILITY Pit sides and base stable throughout excavation.	nflow). Engineer notes water			

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP142 South Tees Development Corporation

E:454954.060 N:521286.604 Start Date: 23/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.896 2 of 3

Figure PRAIRIE\_AUK\_TP142.1 PRAIRIE\_AUK\_TP142









### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP142 South Tees Development Corporation E:454954.060 N:521286.604 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 Ground Level (m): 8.896 3 of 3



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP143 South Tees Development Corporation E:454890.560 N:521284.540 Ground Level (m): 8.721 Method (Equipment): Start Date: Machine Excavated (360 Tracked Excavator) 23/04/2020 1 of 3 **SAMPLES & TESTS** STRATA Nater Reduced Depth Depth Description MADE GROUND (Grey brown black red clayey sandy gravel with high cobble content and fragments of metal. Sand is fine to coarse and includes predominantly ash. Gravel is fine to coarse subangular 0.30 .J1 (1.00) and includes ash, clinker, weak concrete and red and yellow brick. 0.50 PID <0.1ppm 0.60 Cobbles are angular and include brick, concrete and vesicular grey slag. Slag content is 25-50%). FS3 0.80 PID Firm (friable) brown silty CLAY. 1.00 <0.1ppm 1.30 J4 (0.80) 1.50 1.60 B5 ES6 Terminated at 1.80m BGL - due to water ingress. **PLAN GROUNDWATER** Water strike at 1.80m BGL (Heavy inflow) - Water level rose to 1.60m BGL. 2.60 Engineer notes unknown heavy water source discharging into pit. No known Face A services in the area Arcadis instructed to backfill. Face D Face Orientation 090° .20 **STABILITY** Pit sides and base stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: Yes sheets. Contract No. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: All dimensions in metres

Scale 1:50

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP143 South Tees Development Corporation E:454890.560 N:521284.540

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 2 of 3

Figure PRAIRIE\_AUK\_TP143.1 PRAIRIE\_AUK\_TP143









### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP143 South Tees Development Corporation E:454890.560 N:521284.540 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 23/04/2020 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL DIT DECORD

Status:-

<b>(5</b>	Prairie Site Ground Investigation Works						PRELIM3	
Project:							Exploratory Hole No.	
Client: South Tees Development Corporation PI						PRAIRIE_AUK_TP14		
Method (Equipment): Machine Excavated (360 Tracked Excavator)					cavator)		E:454789.038 N:521289.908   Ground Level (m):   Start Date: 24/04/202	Sheet: 0 1 of 3
SAM	PLES &	TESTS					STRATA	
Depth	Type No	Test Result	Water	Reduced Level		Depth Thickness)	Description	
0.40 0.50 0.60 0.80 1.00	J1 PID B2 ES3 PID	0.8ppm 1.5ppm		7.60		(1.20)	MADE GROUND (Grey brown black red cobble content and fragments of metal. S includes predominantly ash. Gravel is fin includes ash, clinker, concrete, slag and Cobbles are angular and include brick, c content is 50-75%. Slag is vesicular grey between c.0.00-1.20m BGL Faces A a at c.1.20m BGL concrete base.  Terminated at 1.20m BGL - due to concre	Sand is fine to coarse and e to coarse subangular and red and yellow brick. oncrete and slag. Slag ). nd C are concrete walls.
Face D		PLAN 5.00 Face A  Orientation 000° Face C		Tace D	1.90	Satura	INDWATER ted strata (slight inflow) at 1.10m BGL. Slight  ILITY as and base stable throughout excavation.	sheen noted.
	ADDITI	ONAL INFOR	MATIO	NI		CENE	RAL REMARKS	
ADDITIONAL INFORMATION  Sketch Diagram: No Sketch Taken					GENE	IVAL NEIVIANNO		
Photograp	hs:	Yes		See add shee				
	nsions in i cale 1:50			For exp abbrev	lanation o	of symbo		ged by: Contract No. 4251

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP144 South Tees Development Corporation E:454789.038 N:521289.908

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 24/04/2020 Ground Level (m): 8.803 2 of 3





Figure PRAIRIE\_AUK\_TP144.2 PRAIRIE\_AUK\_TP144

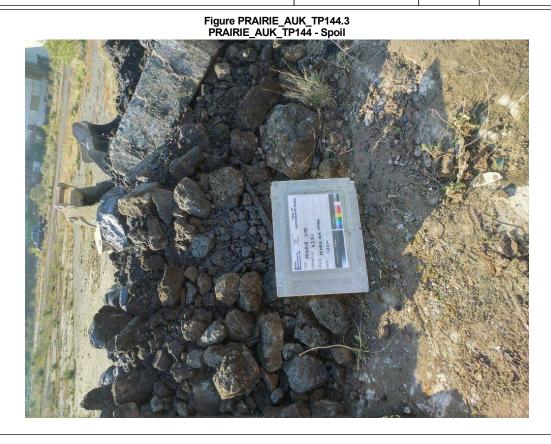




### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP144 South Tees Development Corporation E:454789.038 N:521289.908 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 24/04/2020 Ground Level (m): 8.803 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

PRELIM3

							TREEINIS
roject:			Prairie	Site Gro	ound Inv	estigatio/	n Works Exploratory Hole No
South Tees Development Corporation							PRAIRIE_AUK_TI
lethod (Equipn							E:454703.421 N:521301.805   Ground Level (m):   Start Date:   Sheet:
	Machine	Excavated (36	0 Trac	ked Exc	avator)		8.912 14/04/2020 1 of 3
SAN	MPLES &	TESTS					STRATA
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description
0.05 0.05	J1 J2			8.81		0.10 (1.60)	MADE GROUND (Grass over brown sandy topsoil).  MADE GROUND (Brown black clayey sandy gravel with low cobble and boulder content and fragments of wood, metal and plastic. Gravel is fine to coarse subangular to subrounded and includes brick, concrete and slag. Cobbles and boulders are subangular and include concrete and brick. Slag content is 0-25%. Slag is vesicular grey green white).
00		0.0		7.21		1.70	
.60 .60	PID ES4	0.2ppm	<b>N</b>	1.21	<u>***</u>	1.70	at c.1.60m BGL slight hydrocarbon odour.  Firm to stiff orange brown mottled grey slightly sandy CLAY.
.90 .00	J5 HSV	77 (30)kPa				(0.80)	Thin to dim ordings shown motion groy original scales of the
.40	В6			6.41		2.50	Firm thinly laminated grey brown slightly sandy CLAY with light grey sand on lamination surfaces. Sand is fine.
.90 .00	J7 HSV	64 (28)kPa				<u>(</u> 1.00)	Salid off familiation surfaces. Salid is fille.
.40	B8	. ,		5.41		3.50	
						- - - - - - - - - - - - - - - - - - -	
		PLAN				GROU	 INDWATER
<b>.</b>		3.20			•	Ground	dwater seepage at 1.70m BGL.
Face D		Face A  Orientation  210°  Face C		race U	2.00	STABI Pit side	ILITY es stable throughout excavation.
	ADDIT	IONAL INFORM	ЛАТІО	N		GENE	RAL REMARKS
Sketch Diagram: No Sketch Taken							
Photograp	phs:	Yes		See add shee			
	ensions in Scale 1:50			For expl abbrevi	anation	of symbo see Key S	ols and Checked by: Logged by: Contract No. K. Russell-Clamp 4251

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

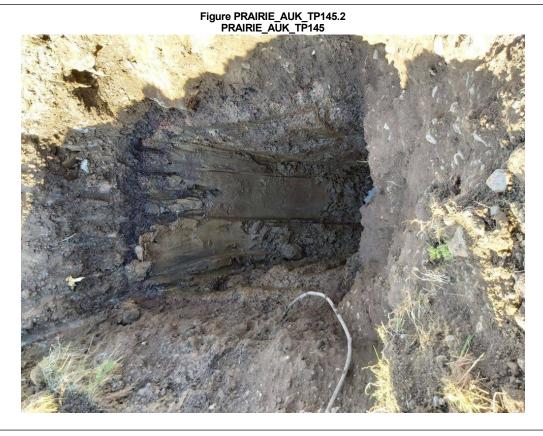
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP145 South Tees Development Corporation

E:454703.421 N:521301.805 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 2 of 3





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 999



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP145 South Tees Development Corporation E:454703.421 N:521301.805 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 3 of 3



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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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Status:-

<b>(</b>		IT RECORD PRELIM3					
Project:		F	rairie	Site Gr	ound Inv	estigatio	n Works Exploratory Hole No.
Client: So Method (Equipmen	E:454604.642 N:521287.306    Ground Level (m):   Start Date:   8.695   14/04/2020   1 of 2						
	PLES &			<u> </u>			STRATA
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	
				8.60 8.40		0.10	MADE GROUND (Brown sandy gravelly topsoil. Sand is fine to
							MADE GROUND (Strong grey concrete slab with rebar, possibly an old floor).  Terminated at 0.30m BGL - due to concrete.
		PLAN 10.00 Face A			<u> </u>	GROU No gro	JNDWATER sundwater inflow observed.
Face D		Orientation  192°  Face C		n ace D	2.00	STAB Pit side	ILITY es stable throughout excavation.
Sketch Diagra		ONAL INFORM	IATIO			(1) No	RAL REMARKS samples taken. located to PRAIRIE_AUK_TP146A.
Photographs	s:	Yes		See add shee		-	
All dimens	sions in ale 1:50		-	For expl abbrev	lanation iations s	of symbo	ols and Checked by: Logged by: Contract No. K. Russell-Clamp 4251

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP146 South Tees Development Corporation E:454604.642 N:521287.306 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 Ground Level (m): 8.695 2 of 2





					TR	IAL PI	IT RE	ECORD			PRELIM3
ject: Prairie Site Ground Investigation Works									Exploratory Hole No.		
nt: So	outh Tees D	evelopment	Corpo	ration		Location		<i>454</i> 610.81	1 N:521287	PI	AIRIE_AUK_TP14
hod (Equipmer	nt): Machine Ex	cavated (36	0 Trac	ked Exc	avator)			Ground Level (	m): .602	Start Date: 14/04/2020	Sheet: 1 of 2
SAMF	PLES & TES	STS							STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Description	
		PLAN				0.10	coars	se. Gravel i 0.10m BGL inated at 0.	s fine to coa	arse subangula	psoil. Sand is fine to r and includes concrete). ib, possibly an old floor.
Face D		3.00 Face A  Drientation 192°		Tace B	3.00	STABI	ILITY	e throughou	served.		

ADD	ITIONAL INFORI	MATION	GENERAL REMARI			
Sketch Diagram: No Sketch Taken		(1) No samples taken (2) Relocated from Pf (3) Relocated to PRA	RAIRIE_AUK_TP146.			
Photographs:	aphs: Yes See additional sheets.					
All dimensions in metres			of oursebala and	Checked by:	I odded by:	Contract No.

For explanation of symbols and abbreviations see Key Sheets All dimensions in metres Scale 1:50 Contract No. 4251 Logged by: K. Russell-Clamp



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP146A South Tees Development Corporation E:454610.811 N:521287.001 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 Ground Level (m): 8.602 2 of 2

Figure PRAIRIE\_AUK\_TP146A.1 PRAIRIE\_AUK\_TP146A



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### **TRIAL PIT RECORD**

PRELIM3

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ject:		Prairie	Site Gr	ound Inv	estigatio/	n Works			Exploratory Hole No.
nt: South Te	ees Development	Corpo	ration		Location	:		PR	AIRIE_AUK_TP14
nod (Equipment):						E:454603 Ground Le	.479 N:521283.2	232 Start Date:	Sheet:
	ne Excavated (36	0 Trac	ked Ex	cavator)			8.643	14/04/2020	1 of 2
SAMPLES & TESTS					1	I	STRATA		
Depth Type No	Reduced Level	Legend	Depth (Thickness)			Description			
			8.54 8.34		0.10 0.30		UND (Brown sai		medium cobble content.
			8.04		0.60	Gravel is fine concrete. Co	e to coarse suba	ingular and incl	udes red brick and de red brick and
					-	\concrete). MADE GRO	UND (Strong gre	ey concrete slat	o, possibly an old floor).
	PLAN					JNDWATER undwater inflow	observed.		
	4.20 Face A								
е О	Orientation		- 2	[] [] []					
Orientation $\frac{196^{\circ}}{\text{B}}$ $\frac{196^{\circ}}{\text{B}}$					STABI Pit side		hout excavation.		
						= = = = = = = = = = = = = = = = = =			
	Face C			<b>」</b> ↓					
ADD	DITIONAL INFORI	MATIO	N		11 -	RAL REMARK			
ketch Diagram:	Sk	etch Tal	ken		(2) Rel	samples taken. located from PR located to PRAI	RAIRIE_AUK_TP1 RIE_AUK_TP146	146A. 6C.	
Photographs:	Yes		See add						
All dimensions			For exp	lanation	of symbo	ols and	Checked by:	Logged K. Russell-	by: Contract No.

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP146B South Tees Development Corporation

E:454603.479 N:521283.232 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.643 2 of 2

Figure PRAIRIE\_AUK\_TP146B.1 PRAIRIE\_AUK\_TP146B



Figure PRAIRIE\_AUK\_TP146B.2 PRAIRIE\_AUK\_TP146B - Spoil



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### TRIAL DIT DECORD

Status:-

Prairie Site Ground Investigation Works    Continue	Œ	Prairie Site Ground Investigation Works							
Method (Explanems)   Method	Project:								
	Client: South Tees Developm	South Tees Development Corporation  Location:  PR							
Despin   Type   Test   Result   Despin   Despin   Description		(360 Tracked Excavator)	Ground Level (m): Start Date	e: Sheet:					
0.05  3.1  3.2  3.5  3.5  3.5  3.5  3.5  3.5  3.5	SAMPLES & TESTS		STRATA						
ADDITIONAL INFORMATION  MADE GROUND (Back sandy grave with medium cobble content and fragments of metal and wood. Grave is fine to coarse subangular and includes red brick and concrete).  MADE GROUND (Strong grey concrete).  MADE GRO	Depth Type Test No Result	Reduced Legend	Depth (Thickness) Description	on					
Groundwater seepage at 1.20m BGL.  Face A  Orientation 280°  Face C  STABILITY Face C unstable from c.0.90m BGL.  ADDITIONAL INFORMATION  GENERAL REMARKS (1) Relocated from PRAIRIE_AUK_TP146B.	0.05 J1 0.30 J2 0.50 B3 7.98 7.78  1.00 J4 1.30 PID 0.2ppm 1.30 ES5 1.50 HSV 97 (40)kPa 1.70 J7  2.30 B8 2.50 PID <0.1ppm 97 (30)kPa 2.50 ES9		MADE GROUND (Black sandy gravel and fragments of metal and wood. Grasubangular and includes red brick and MADE GROUND (Strong grey concret MADE GROUND (Black clayey sandy content and fragments of metal and wisubangular and includes red brick, corsubangular and include red brick and codour).  Stiff grey brown slightly sandy CLAY.	with medium cobble content avel is fine to coarse d concrete).  te). gravel with medium cobble cond. Gravel is fine to coarse ncrete and ash. Cobbles are					
Photographs: Yes See additional sheets.	Face C  ADDITIONAL INFO	DRMATION  Sketch Taken  See additional	Groundwater seepage at 1.20m BGL.  STABILITY Face C unstable from c.0.90m BGL.						

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

| Method (Equipment): | Ground Level (m): | Start Date: | 14/04/2020 | 2 of 3 |







Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399



### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP146C South Tees Development Corporation E:454595.940 N:521282.000

Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.682 3 of 3



Figure PRAIRIE\_AUK\_TP146C.4 PRAIRIE\_AUK\_TP146C Sketch **PLAN VIEW** 280° A At 0.70m BGL D 2.00 В - Concrete 5.00 2.00 C Not to scale All measurements in metres unless otherwise stated

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### TRIAL PIT RECORD

Status:-

(G	TRIAL FIT RECORD							PRELIM3		
Project:	: Prairie Site Ground Investigation Works								Exploratory Hole No.	
Client:	South Tee	es Developmen	t Corno	ration		Location	:	P	RAIRIE_AUK_TP147	
		.3 Developmen	СООГРС	, audin			E:454535.320 N:521258.15		Sheet:	
Method (Equipr		e Excavated (30	60 Trac	ked Exc	cavator)		Ground Level (m): 8.595	17/04/2020	1 of 3	
SAI	MPLES &	TESTS			1		STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	ι	Description		
0.40 0.60 1.10 1.50 1.70	J1 B2 J3 ES4 PID B5	<0.1ppm	<b>\Pi</b> _=	7.80 7.60		(0.80) - 0.80 - 1.00 - (0.80) - 1.80	MADE GROUND (Brown grave) Gravel is fine to coarse suban slag. Slag content is 0-25%. S  MADE GROUND (Strong gree an old floor).  from c.0.80m BGL Face C: MADE GROUND (Brown blac content, fragments of metal ar pockets of firm brown clay. Sa coarse subangular and includ slag. Cobbles are subangular content is 0-25%. Slag is vesigat c.1.80m BGL concrete.  Terminated at 1.80m BGL - du	gular and inciding is vesicular and incident grey fine grey fine grey fine grey fine grey fine for the grey fine for the grey grey grey grey grey grey grey gre	rained concrete, possibly /structure. ravel with medium cobble coarse gravel sized coarse. Gravel is fine to actory brick, concrete and concrete and brick. Slag iten white).	
		PLAN					INDWATER ed water at 1.60m BGL			
<u></u>		3.30 Face A			<b>→</b> □↑					
Face A  Orientation  218°  Face C					3.00	STABI Pit side	LITY es and base stable throughout exc	avation.		
	ADDIT	IONAL INFOR	MATIO	N		GFNF	RAL REMARKS			
ADDITIONAL INFORMATION  Sketch Diagram: Sketch Taken							er to following sketch for further d	etails.		
Photogra	iphs:	Yes		See add shee						
	ensions in Scale 1:50			For exp	lanation iations s	of symbo	ols and Checked by:	Logged K. Russell	by: Contract NoClamp 4251	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP147 South Tees Development Corporation

E:454535.320 N:521258.153 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





Figure PRAIRIE\_AUK\_TP147.2 PRAIRIE\_AUK\_TP147



Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No.

Client: Location: South Tees Development Corporation

PRAIRIE\_AUK\_TP147

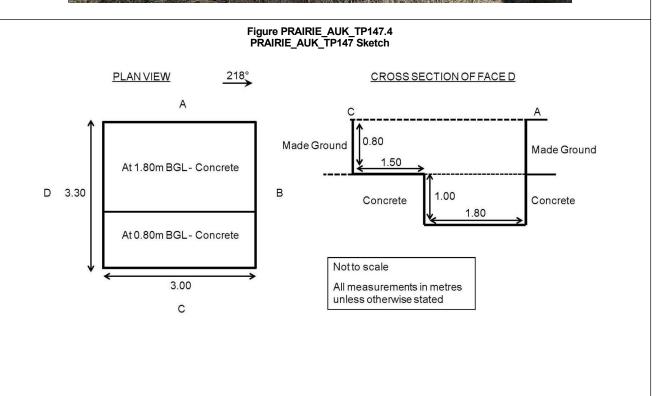
E:454535.320 N:521258.153 Method (Equipment):

Machine Excavated (360 Tracked Excavator)

Start Date: 17/04/2020

3 of 3

Figure PRAIRIE\_AUK\_TP147.3 PRAIRIE\_AUK\_TP147 - Spoil



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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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Project:		Pr	airie Site	Ground Inv	estigatio	n Works			Explo	ratory Hole No.
Client:	outh Tees	Development C	orporation	1	Location		3.137 N:521287.9	P 984	RAIRIE	E_AUK_TP14
Method (Equipme	ent): Machine	Excavated (360	Tracked E	Excavator)		Ground L		Start Date: 16/04/2020	Sheet:	1 of 2
SAM	PLES & T	ESTS				'	STRATA	-		
Depth	Type No	Test Result	Neduc Leve	ced el Legend	Depth (Thickness)			Description		
					(0.60)		UND (Brown sar	ndy topsoil).		
				.52	0.60 - - - (0.60) - 1.20	MADE GRO rebar)).	OUND (Strong gre	ey reinforced co	oncrete (1	0mm diameter
						Terminated	at 1.20m BGL - d	ue to concrete.		
•		PLAN 2.50 Face A		<u> </u>		INDWATER undwater inflo	v observed.			
Face D		Orientation  284°  Face C		— 1.90 ——→ Face B	STABI Pit side	LITY es and base sta	able throughout ex	cavation.		
Sketch Diagr		ONAL INFORMA	ATION tch Taken		(1) No	RAL REMAR samples taker ocated to PRA		ßA.		
Photograph	hs:	Yes		additional neets.	_					
	nsions in n	netres	For e	xplanation eviations s	of symbo	ols and Sheets	Checked by:	Logged K. Russell	d by: -Clamp	Contract No. 4251

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP148 South Tees Development Corporation

E:454428.137 N:521287.984 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 2

Figure PRAIRIE\_AUK\_TP148.1 PRAIRIE\_AUK\_TP148







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### TRIAL PIT RECORD

PRELIM3

Project:			Prairie	Site Gr	ound Inv	vestigatio	n Works			Exploratory Hole No.
Client:	South Tee	s Development	t Corpo	ration		Location	:		PF	AIRIE AUK TP14
Method (Equipm								24.353 N:521284 Level (m):		Sheet:
	Machine	Excavated (36	30 Trac	ked Exc	avator)			8.956	16/04/2020	1 of 3
SAM	IPLES &	TESTS						STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
.50 .80 .30 .30 .40 .40 .70	J1 B2 J3 B4 ES5 PID B6	<0.1ppm		7.96 7.46 6.96		(1.00) (0.50) (0.50) 2.00	MADE GR vesicular getween c (10mm dia	ntent and fragmerse. Gravel is fin- rick and concrete e brick and concrete OUND (Black gra- parse. Gravel is the prete, ash and sla- parey green white)	ents of metal, place to coarse subale. Cobbles and brete).  avelly sand with fine to coarse surg. Slag content	
		PLAN	<u> </u>				JNDWATER	seepage at 1.70m	BCI.	
		3.60 Face A			<b>1</b>	J. Silgrit (	groundwater s	ocepaye at 1.70fff	DGL.	
Face D		Orientation  184°  Face C		T a C C C C C C C C C C C C C C C C C C	2.00	STABI Pit side		table throughout e	excavation.	
	ADDIT	IONAL INFORI	MATIO	N		GENE (1) Rel	RAL REMAR	RKS PRAIRIE_AUK_TF	P148.	
Sketch Diag	gram:	No S	Sketch Ta	aken						
Photograp	ohs:	Yes		See add						
	nsions in scale 1:50			For exp abbrev	lanation iations s	of symbo see Key S	ols and Sheets	Checked by	y: Logged K. Russell	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP148A South Tees Development Corporation

E:454424.353 N:521284.277 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





Figure PRAIRIE\_AUK\_TP148A.2 PRAIRIE\_AUK\_TP148A





### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP148A South Tees Development Corporation E:454424.353 N:521284.277 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.956 3 of 3

Figure PRAIRIE\_AUK\_TP148A.3 PRAIRIE\_AUK\_TP148A - Spoil



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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-DDEI IM2

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Project:			Prairie	Site Gr	ound Inv	/estigatio	n Works		Exploratory Hole No.
Client:	South Tee	es Development	Corpo	oration		Location	E:454320.946 N:521308.8		RAIRIE_AUK_TP14
Method (Equipn		e Excavated (36	0 Trac	ked Ex	cavator)		Ground Level (m): 7.798	Start Date: 09/04/2020	Sheet: 1 of 3
SAN	MPLES &	TESTS					STRATA	1	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
0.50	J1 B2					(1.50)	MADE GROUND (Black sand content. Sand is fine to coars and includes slag, coal, coke subangular and include conci 0-25%. Slag is vesicular grey	e. Gravel is fin , sinter and clir rete, slag and	ne to coarse subangular nker. Cobbles are red brick. Slag content is
1.30 1.30 1.80 2.00 2.20	ES3 PID J4 HSV B5	<0.1ppm 55 (34)kPa		6.30		1.50	Firm indistinctly laminated ora CLAY.	ange brown mo	ottled grey slightly sandy
2.80 2.80	J6 HSV	68 (20)kPa		4.80		3.00	Complete at 3.00m BGL.		
		PLAN 3.20 Face A			<u> </u>		NDWATER undwater inflow observed.		
Face D		Orientation  132°		- acc	1.90 —	STABI Pit side	LITY s and base stable throughout exc	cavation.	
		Face C			<b>」</b> ↓				
	ADDIT	TONAL INFORM	MATIO	N		GENE	RAL REMARKS		
Sketch Dia	gram:	No S	ketch T	aken					
Photograp	ohs:	Yes		See add					
	nsions in Scale 1:50			For exp	lanation	of symbo see Key S	Is and Checked by:	Logged K. Russell-	l by: Contract NoClamp 4251

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP149 South Tees Development Corporation

E:454320.946 N:521308.856 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 2 of 3







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP149 South Tees Development Corporation E:454320.946 N:521308.856

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 3 of 3





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:PRFI IM3

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Project:		F	rairie	Site Gr	ound Inv	estigation/	n Works		Exploratory H	lole No.
Client:	outh Tees	Development	Corpc	ration		Location	:		PRAIRIE_AU	K TP15
Method (Equipme	ent):						E:454235.334 N:52 Ground Level (m):	1322.653   Start Date:	Sheet:	_
	Machine	Excavated (360	) Trac	ked Exc	avator)		9.172	16/04/20	1 of 4	
SAM	IPLES &	TESTS			1		STR	ATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	n	
				8.67		(0.50) 0.50	MADE GROUND (Brown coarse. Gravel is fine to slag, brick and concrete	o coarse subang	ular and includes ash	, clinker,
0.50 0.60	J1 B2			6.07		(1.70)	MADE GROUND (Browness) and plastic. Sansubangular and include content is 25-50%. Slabetween c.0.50-2.20m side of pit and concrete sides of pit.	wn black grey sard is fine to coarse es ash, clinker, signistry.  BGL brick stru	ndy gravel with fragmone. Gravel is fine to coa ag, brick and concret acture exposed on eas	ents of arse e. Slag
1.50	ES3			6.97		2.20	at c.2.20m BGL 610	mm diameter me	tal pipe (redundant) r	unning /
							Terminated at 2.20m B	GL - due to servio	e.	
						-				
	_	PLAN 3.30 Face A			<b>†</b>		INDWATER undwater inflow observed.			
Face D		Orientation 000° →		T acc	2.50 —	STABI Pit side	LITY es and base stable through	nout excavation.		
		Face C			J↓					
	ADDITI	ONAL INFORM	ATIO	N		GENE	RAL REMARKS			
Sketch Diag	ıram:	Sket	ch Tal	ken						
Photograp	hs:	Yes		See add shee						
	nsions in a	metres		For exp abbrev	lanation	of symbo see Key S	ols and Check	ed by: Log		act No. 251

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

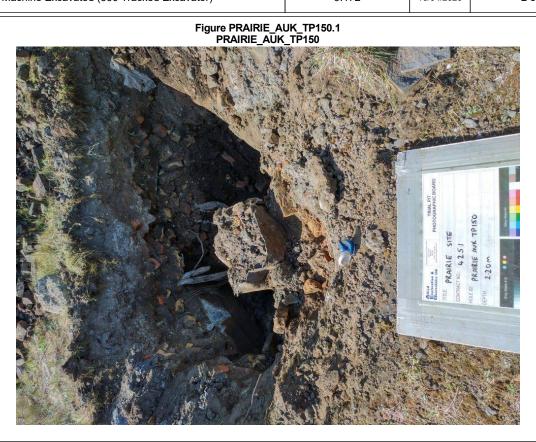
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP150 South Tees Development Corporation E:454235.334 N:521322.653

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4





## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

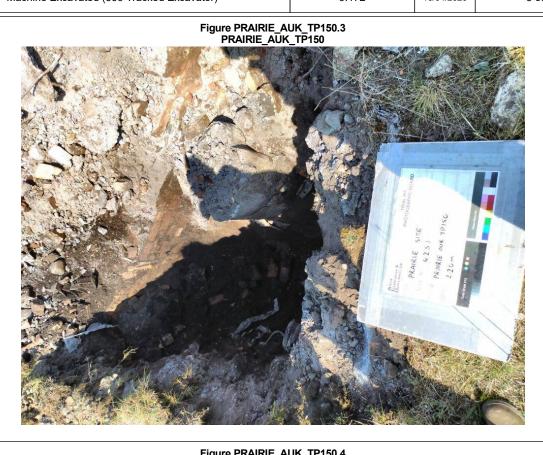
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP150 South Tees Development Corporation E:454235.334 N:521322.653

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 16/04/2020 3 of 4





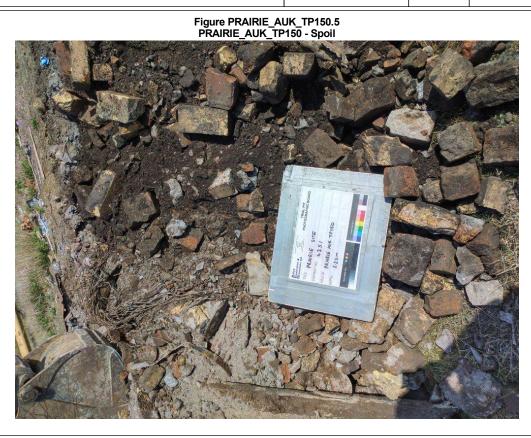
Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

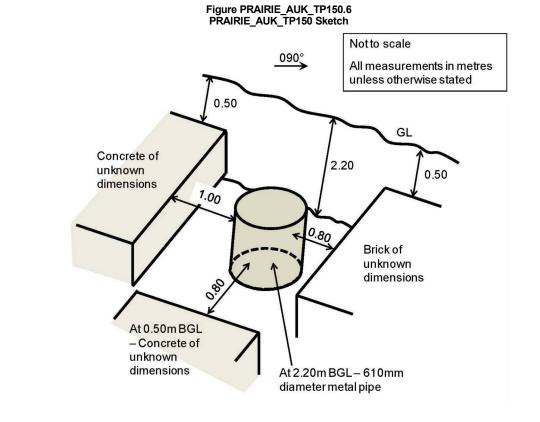
#### TRIAL PIT RECORD

PRELIM3

Project: Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP150 South Tees Development Corporation E:454235.334 N:521322.653 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 9.172 Start Date: 16/04/2020 4 of 4





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999



### TRIAL PIT RECORD

PRELIM3

Project:		ı	Prairie	Site Gr	ound Inv	estigatio	n Wor	ks				Exploi	ratory Hole No.
Client:	South Tee	s Development	Corpo	oration		Location	1:				PI	RAIRIE	_AUK_TP15
Method (Equipr			O. T					:455089 Ground Le		Sta	art Date:	Sheet:	
	Machine	Excavated (36	U Trac	Ked Exc	avator)				10.499	2	23/04/2020		1 of 3
SAI	MPLES &	TESTS					1		STRA	TA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Des	cription		
				10.30		0.20	∖ is fin	e to coa	UND (Grey s arse subangu	sandy gra ular and i	avel. Sand includes sa	is fine to andstone,	coarse. Gravel concrete and
0.30 0.40 0.50	J1 B2 PID	1.1ppm		10.00 9.90		0.50 0.60	MAC		UND (Grey s to coarse. G				bble content.
0.80 1.00 1.00	J3 B4 PID	0.8ppm					MAE	E GRO	ak (lean) mix UND (Comp I is fine to co	acted gr	ey blue asl	n. Recove	red as sandy
1.20	ES5					-	\Gra\	el is fin					weak concrete
1.50	PID J6	0.9ppm				- (2.30) -	MAE	E GRO	UND (Grey b	fragmen	ts of metal	. Sand is	fine to coarse
2.00 2.00	B7 PID	<0.1ppm				- - -	and brick	includes . Cobbl		r, ćoke, v	veak concr	ete and re	rse subangular ed and yellow v brick and
2.50	PID	<0.1ppm				-	conc	rete).					
2.80	J8			7.60	× _ × _			(friable	) brown silty	CLAY wi	th yellow s	ilty fine to	medium sand
3.00	PID B9	<0.1ppm			* _ × _ : × _ × _ : × _ × _ :	_ - - (1.30)	lense						ed silt and clay
3.80	J10			0.00	X X X	- 400							
4.20	B11			6.30	× ×	4.20 -		plete at	4.20m BGL.				
						- - - -							
						- - - -							
						- - - -							
		PLAN					JNDW.		observed.				
		3.10 Face A			<b>1</b>								
Face D		Orientation		a C	1.20								
Fac				Ū		STABI Pit side		base sta	ble throughou	ut excava	tion.		
		Face C			<b></b> ↓								
	ADDIT	IONAL INFORM	/ATIC	)N		GENE	RAL F	REMARK	(S				
Sketch Dia			ketch T						· ·				
Photogra	phs:	Yes		See add shee									
	ensions in Scale 1:50			For exp	lanation iations s	of symbo ee Key S	ols and	l	Checked	l by:	Logged D. Portsn	by:	Contract No. 4251

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP151 South Tees Development Corporation E:455089.187 N:521231.720

Start Date: 23/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.499 2 of 3









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### TRIAL PIT RECORD

PRELIM3

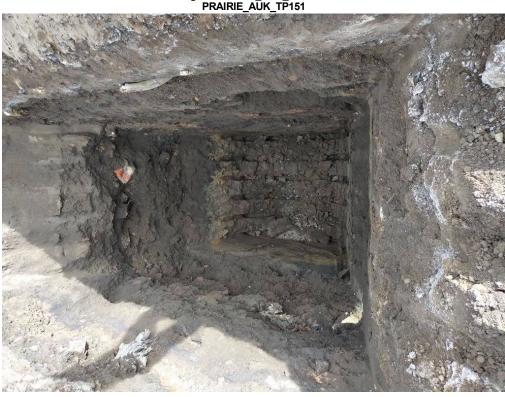
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP151 South Tees Development Corporation

E:455089.187 N:521231.720 Start Date: 23/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.499 3 of 3

Figure PRAIRIE\_AUK\_TP151.3 PRAIRIE\_AUK\_TP151









#### TRIAL PIT RECORD

Status:-DDEI IM3

Project:	Prairie	Site Gro	ound Inv	estigation/	Works		Exploratory Hole No.
Client: South Tees Development	Corpo	ration		Location		Р	RAIRIE_AUK_TP1
Method (Equipment):					E:455033.237 N:521245.22 Ground Level (m):		Sheet:
Machine Excavated (360	) Tracl	ked Exca	avator)		9.958	22/04/2020	1 of 3
SAMPLES & TESTS				1	STRATA		
Depth Type Test No Result	Water	Reduced Level	Legend	Depth (Thickness)	ι	Description	
0.30 J1 0.50 PID 0.3ppm 0.65 J2 0.80 B3 1.00 PID 1.6ppm 1.50 PID 0.8ppm 1.60 J4 1.80 B5 2.00 ES6		9.76 9.56 9.36 7.86		0.20 0.40 0.60	MADE GROUND (Grey sandy wood. Sand is fine to coarse. includes sandstone, concrete is vesicular grey).  MADE GROUND (Compacted gravel. Sand is fine to coarse Gravel is fine to coarse suban and possible fused ash).  MADE GROUND (Grey sandy Sand is fine to coarse. Gravel includes weak (lean) mix cond MADE GROUND (Grey brown high cobble content and fragn and includes predominantly as and includes ash, clinker, cok brick. Cobbles are angular an concrete).  at c.2.10m BGL concrete.  Complete at 2.10m BGL.	Gravel is fine and slag. Sla I grey blue as and includes gular and inc r gravel with n is fine to coacrete and grey black red clanents of metash. Gravel is te, weak conci	to coarse subangular and g content is 0-25%. Slag  h. Recovered as sandy predominantly ash. ludes ash, weak concrete nedium cobble content. rse subangular and v fused ash).  layey sandy gravel with l. Sand is fine to coarse rine to coarse subangular rete and red and yellow
PLAN			]†		NDWATER ndwater inflow observed.		
O Orientation 090°  Face C		Face B		STABI Pit side	LITY s and base moderately stable thro	oughout excav	ation.
ADDITIONAL INFORM				GENE	RAL REMARKS		
Sketch Diagram: No Sk	etch Ta	iken					

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

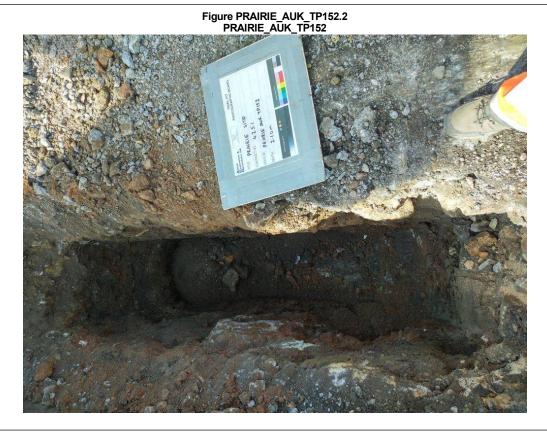
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP152 South Tees Development Corporation

E:455033.237 N:521245.226 Ground Level (m): 9.958 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 2 of 3





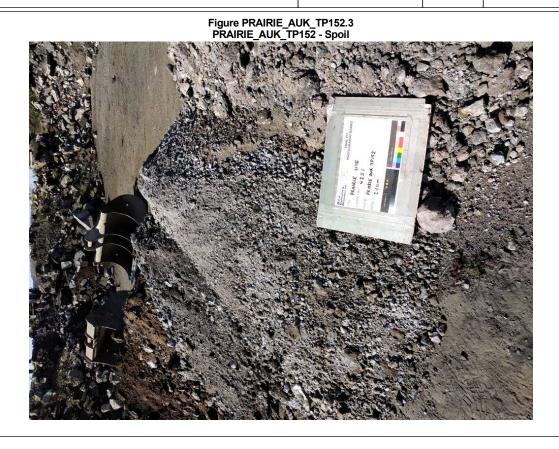


### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP152 South Tees Development Corporation E:455033.237 N:521245.226 Ground Level (m): 9.958 Start Date: 22/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999



### TRIAL PIT RECORD

PRELIM3

Project:	Prai	rie Site Gro	ound Inv	estigation V	Vorks		Exploratory Hole No.
Client: South Tees D	Development Co	rporation		Location:		Р	RAIRIE_AUK_TP1
Method (Equipment):					E:454900.596 N:521232. Ground Level (m):	384 Start Date:	Sheet:
Machine Ex	xcavated (360 Ti	racked Exc	avator)		9.441	22/04/2020	1 of 3
SAMPLES & TE	STS				STRATA		
Depth Type No	Test Result	Reduced Level	Legend	Depth (Thickness)		Description	
0.50 J1 0.50 PID 0.80 J2 0.90 B3 1.00 PID 1.10 ES4 1.50 J5 1.50 PID 1.60 B6 2.00 PID	1.8ppm 0.5ppm <0.1ppm	9.24 9.14 8.84 8.24		0.30 fr - 0.60 c - 1.20 c - 1.	MADE GROUND (Grey sandagments of metal and woo oarse subangular and includented is 0-25%. Slag is verified and woo oarse and includes predomusiangular and includes predomusiangular and includes as sh).  MADE GROUND (Grey brownship)  MADE GROUND (	d. Sand is fine ides sandstone sicular grey).  a).  ed grey sandy gainantly ash. Gran, weak concretion of metal. Sar Gravel is fine tweak concrete alag content is 0  dy CLAY with siameter clay pigiameter clay pigiameter clay pigiameter clay pigiameter sandstone sandstone is fine tweak concrete alag content is 0	to coarse. Gravel is fine to , concrete and slag. Slag gravel. Sand is fine to avel is fine to coarse te and possible fused and just in the coarse and o coarse subangular and and slag. Cobbles are -25%. Slag is vesicular and lenses. Sand is fine to (broken) at eastern end
					Complete at 2.40m BGL.		
	PLAN				DWATER		
	3.10 Face A Orientation	Fac	<u></u>		DWATER dwater inflow observed.		
Face D	3.10 Face A	Face B		No ground	dwater inflow observed.	cavation.	
Face D	3.10 Face A  Orientation 090°			No ground	dwater inflow observed.	ccavation.	
	3.10 Face A  Orientation 090° Face C	α		STABILIT Pit sides a	dwater inflow observed.  TY  and base stable throughout ex	ccavation.	
	3.10 Face A  Orientation 090°	TION		STABILIT Pit sides a	dwater inflow observed.	cavation.	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

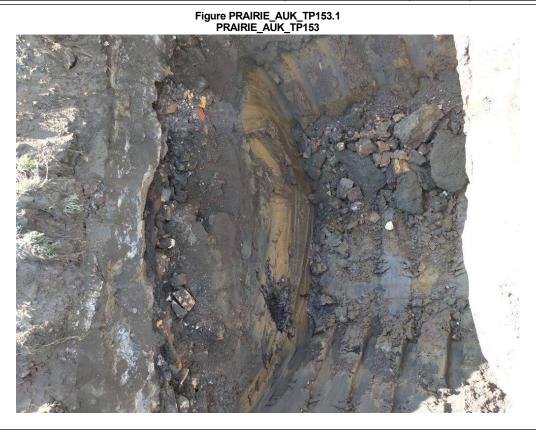
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP153 South Tees Development Corporation

E:454900.596 N:521232.384

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 2 of 3







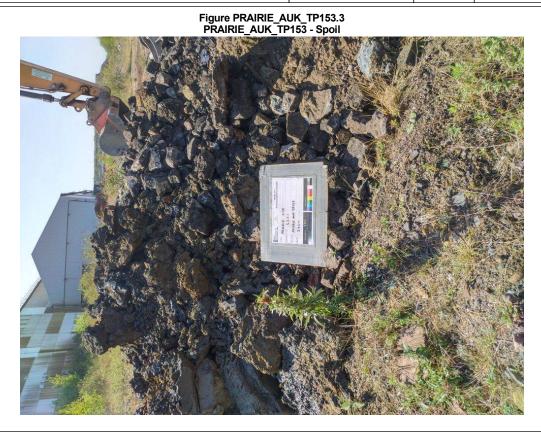
# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP153 South Tees Development Corporation E:454900.596 N:521232.384 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 22/04/2020 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:PRFI IM3

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roject:		F	rairie	Site Gro	ound Inv	estigation/	n Works		Exploratory Hole No.			
lient:	South Tee	s Development	Corpo	ration		Location		Р	RAIRIE AUK TP1			
ethod (Equipm		<u> </u>					E:454781.179 N:521239 Ground Level (m):		Sheet:			
	Machine	Excavated (360	) Trac	ked Exc	avator)		9.292 21/04/2020 1 of 3					
SAN	/IPLES &	TESTS					STRATA					
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description				
.50 .60 .80 .85 .00 .30 .50 .60	PID J1 B2 ES3 PID J4 PID B5	1.1ppm 0.2ppm <0.1ppm		9.19 8.99 8.39		0.10 0.30 (0.60) 	MADE GROUND (Grey san fragments of metal and woo coarse subangular and inclucentent is 25-50%. Slag is very MADE GROUND (Grey grasubangular and includes lim MADE GROUND (Grey brownetal. Sand is fine to coarse is fine to coarse subangular concrete and possibly fused at c.0.90m BGL 100mm cend of pit running 045 degree Firm grey brown slightly sar Engineer notes grading to in the complete at 3.10m BGL.	od. Šand is fine udes sandstone resicular grey). vel. Gravel is mestone and slawn black sandy e and includes a fand includes a dash). diameter cast ircees.	to coarse. Gravel is fine to , concrete and slag. Slag edium to coarse g. Slag content is 0-25%). gravel with fragments of oredominantly ash. Gravel sh, clinker, coke, weak on pipe in western most lis fine to medium.			
-		PLAN 3.50 Face A			<b>·</b> ↑↑		NDWATER undwater inflow observed.					
Face D		Orientation 090° → Face C		Taice B	1.20	STABI Pit side	LITY s and base stable throughout e	xcavation.				
Sketch Diag		IONAL INFORM No Sk	etch T			GENE	RAL REMARKS					
Photograp	ohs:	Yes		See add shee								
	nsions in Scale 1:50			For expl	anation	of symbo see Key S	ls and Checked by heets	r: Logged D. Portsr	I by: Contract No. 4251			

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### TRIAL PIT RECORD

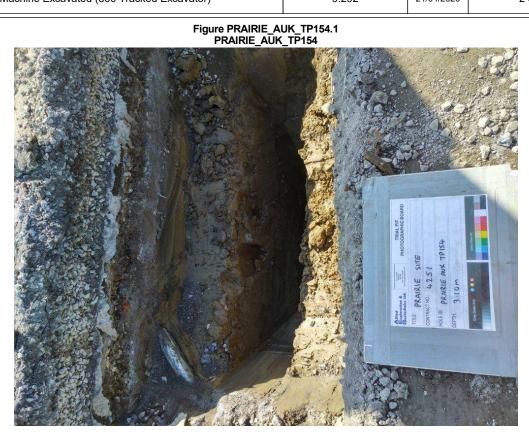
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP154 South Tees Development Corporation

E:454781.179 N:521239.256 Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3







Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP154 South Tees Development Corporation

E:454781.179 N:521239.256 Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3









# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-

(S			PRELIM3							
Project:		!	Prairie	Site Gro	ound Inv	estigatio	n Works		Exploratory Hole No.	
Client:	South Tee	s Development	Corno	ration		Location	:	PRAIRIE_AUK_TP1		
Method (Equipn		3 Development	Обіро	Tation			E:454696.705 N:521187.08		Sheet:	
wiethod (Equiph		Excavated (36	0 Trac	ked Exc	avator)		9.536	21/04/2020	1 of 3	
SAN	MPLES &	TESTS					STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	ι	Description		
0.40 0.40 0.50 0.70 1.00 1.20 1.50 1.60	J1 PID B2 ES3 PID J4 PID B5	1.8ppm 0.1ppm <0.1ppm		9.34 9.24 8.74		(1.40)	MADE GROUND (Grey sandy fragments of metal and wood. coarse subangular and includ content is 25-50%. Slag is ves MADE GROUND (Compacted Cobbles are angular and includis grey dark blue iron rich).  MADE GROUND (Brown sand is fine to coarse and includes coarse subangular and include Firm grey brown slightly sandy Engineer notes grading to interest the complete at 2.20m BGL.	Sand is fine es sandstone sicular grey). It slag recover ide slag. Slag dry gravel with predominantles ash, clinker CLAY. Sand	to coarse. Gravel is fine to , concrete and slag. Slag ed as brown cobbles. content is 50-75%. Slag fragments of metal. Sand y ash. Gravel is fine to er and coke).	
		PLAN 3.50 Face A	<u> </u>		• ]↑		INDWATER ted strata at 0.80m BGL (slight infl	low).		
Face D		Orientation 090° → Face C		Tace Ce	1.20	STABI Pit side	LITY es and base stable throughout exc	avation.		
	ADDIT	IONAL INFORM	ЛАТІО	N		GENE	RAL REMARKS			
Sketch Dia	gram:	No S	ketch Ta	aken						
Photogra	phs:	Yes		See add shee						
	ensions in Scale 1:50			For expl abbrevi	anation ations s	of symbo	ols and Checked by:	Logged D. Portsr	I by: Contract No. mouth 4251	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP155 South Tees Development Corporation

E:454696.705 N:521187.080 Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP155.1 PRAIRIE\_AUK\_TP155



Figure PRAIRIE\_AUK\_TP155.2 PRAIRIE\_AUK\_TP155



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#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP155 South Tees Development Corporation E:454696.705 N:521187.080

Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3

Figure PRAIRIE\_AUK\_TP155.3 PRAIRIE\_AUK\_TP155 - Spoil



Figure PRAIRIE\_AUK\_TP155.4 PRAIRIE\_AUK\_TP155 - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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Status:-

C)	TRIAL PIT RECORD									PRELIM3		
Project:		F	Prairie	Site Gro	ound Inv	estigatio	n Works			Explora	atory Hole N	lo.
Client:	outh Tee	s Development	Corpo	ration		Location		2.162 N:521209.3	P	RAIRIE	_AUK_1	Γ <b>Ρ1</b> 56
Method (Equipme		Excavated (360	) Trac	ked Exc	avator)		Ground L	evel (m): 8.945	Start Date: 14/04/2020	Sheet:	1 of 3	
SAMI	PLES &	TESTS						STRATA	-	1		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		ı	Description			
			<b>1</b>	8.35		- (0.60) - (	content and subangular Cobbles are 0-25%. Slag at c.0.60m l	OUND (Black clayer fragments of wood to subrounded and exubangular and it gis vesicular grey agL concrete. at 0.60m BGL - du	od and metal. d includes red nclude concre green white).	Gravel is fir d brick, con ete. Slag co	ne to coarse crete and sl	•
		PLAN 3.00 Face A			<b>1</b>		INDWATER strike at 0.60m	n BGL.				
Face C							STABILITY Pit sides and base stable throughout excavation.					
	455:-	IONIAL INTEGER	4 A T' C	N.1			DAL DELLE	1/0				
Sketch Diagr		IONAL INFORM	IATIO			(1) No	RAL REMAR samples taker ocated to PRA		<b>A</b> .			
Photograph	ns:	Yes		See add shee		-						
All dimen	sions in			For expl	anation	of symbo ee Key S	ols and Sheets	Checked by:	Logged K. Russell	d by: -Clamp	Contract No.	0.

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP156 South Tees Development Corporation

E:454622.162 N:521209.315 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.945 2 of 3

## Figure PRAIRIE\_AUK\_TP156.1 PRAIRIE\_AUK\_TP156







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP156 South Tees Development Corporation E:454622.162 N:521209.315 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.945 3 of 3

Figure PRAIRIE\_AUK\_TP156.3 PRAIRIE\_AUK\_TP156 - Spoil



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R0

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

Status:PRFI IM3

<b>(</b>		PRELIM3						
Project:		F	Prairie	Site Gr	ound Inve	estigatio	n Works	Exploratory Hole No.
Client:	South Tee	es Development	Corpo	ration		Location	· P	RAIRIE_AUK_TP15
lethod (Equipm	nent): Machine	e Excavated (360	0 Trac	ked Exc	cavator)		Sheet:	
SAN	/IPLES &	TESTS					STRATA	
Depth	Type No	Test Result	Water	Reduced Level		Depth Thickness)	Description	
0.10 0.30 0.50 0.70 1.00 1.150 2.00 2.10	J1 ES2 PID B3 B4 HSV J5 B6 HSV J7	<0.1ppm  102 (40)kPa  99 (38)kPa		8.26 8.06		(0.60)	MADE GROUND (Black gravelly sand. So is fine to coarse subangular and includes  MADE GROUND (Strong dark grey fine go Firm orange brown mottled grey slightly so Complete at 2.50m BGL.	ash, macadam, concrete). rained concrete or slag).
Sketch Diag	gram:	PLAN 2.30 Face A  Orientation 280° Face C  TONAL INFORM No SH	MATIOI		itional	STABI Pit side	INDWATER undwater inflow observed.  LITY es and base stable throughout excavation.  RAL REMARKS	
	nsions in			or expl	lanation o	of symbo		ed by: Contract No.

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP156A South Tees Development Corporation

E:454619.192 N:521200.662 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

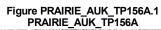




Figure PRAIRIE\_AUK\_TP156A.2 PRAIRIE\_AUK\_TP156A



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#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP156A South Tees Development Corporation E:454619.192 N:521200.662
| Ground Level (m): 8.863 | S Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 3 of 3

Figure PRAIRIE\_AUK\_TP156A.3 PRAIRIE\_AUK\_TP156A - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-

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Project:			Prairie	Site Gr	ound Inv	estigatio	n Works			Explor	atory Hole No.	
Client:	South Tee	es Development	Corpo	ration		Location	:	PRAIRIE_AUK_TP15				
Method (Equipn							E:454503 Ground Le	.120 N:521204.2	274 Start Date:	Sheet:		
		e Excavated (36	0 Trac	ked Exc	cavator)		0.04.14	8.742	17/04/2020	J	1 of 3	
SAM	MPLES &	TESTS						STRATA	·			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description			
0.50 0.80 0.80 1.00	30 ES2 B0 PID <0.1ppm 7.64				1.10	include concrete. Slag content is 0-25%. Slag is vesicular grey green white).						
		PLAN					INDWATER					
<u> </u>		3.70 Face A			<b>1</b>	Damp	at 1.10m BGL.					
Face D		Orientation  140°  Face C		n ace	2.00 ———	STABI Pit side		ble throughout exc	cavation.			
	۷ ا	TONAL INCORE	4ATIO	NI .		CEVIE	DAL DERAND	<b>'</b> S				
Sketch Dia		TIONAL INFORM	MATIO				RAL REMARK ocated to PRAI	KS RIE_AUK_TP157/	A.			
Photogra	phs:	Yes		See add		-						
	ensions in Scale 1:50			For exp	lanation iations s	of symbo ee Key S	ols and Sheets	Checked by:	Logged K. Russell	l by: -Clamp	Contract No. 4251	

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

#### **TRIAL PIT RECORD**

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

Client: South Tees Development Corporation Corporation PRAIRIE\_AUK\_TP157

> Figure PRAIRIE\_AUK\_TP157.1 PRAIRIE\_AUK\_TP157







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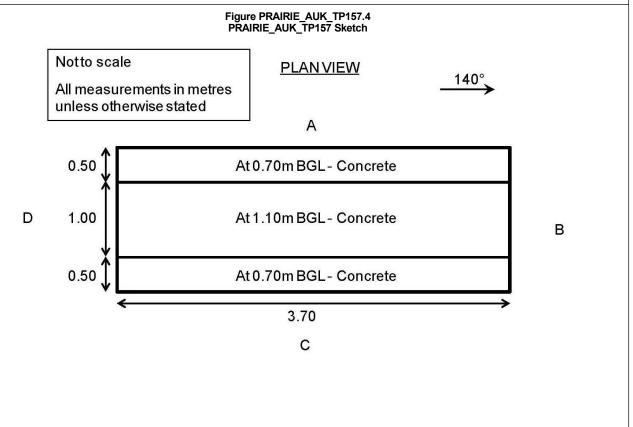
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP157 South Tees Development Corporation E:454503.120 N:521204.274 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-DDEI IM3

رجا										Pr	KELIIVI	3
Project:	Prairie Site Ground Investigation Works									Explor	atory Hol	e No.
Client:	South Te	es Development	Corno	ration		Location	:	AIRIE_AUK_TP1				
Method (Equipm			Согрс	ration			E:454497 Ground Le	7.482 N:521205.	005 Start Date:	Sheet:		
wethod (Equipm		e Excavated (360	) Trac	ked Exc	cavator)		Ground Le	8.784	17/04/2020	Sileet.	1 of 3	
SAM	IPLES 8	k TESTS			1			STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description			
				7.48		(1.30)	with fragmer coarse subar Cobbles are 0-25%. Slag from c.0.10r	UND (Brown grants of metal. Sar ngular and inclu subangular and is vesicular gre n BGL Face A BGL concrete. at 1.30m BGL - o	nd is fine to coar des red brick, c I include concre y green white). : brick structure	rse. Grave oncrete a te. Slag c	el is fine to nd slag.	ntent
	_	PLAN 1.70 Face A			<b>^</b>		INDWATER undwater inflov	observed.				
Face D		Orientation 018° → Face C		ת מכת ס	1.40 ———	STABI Pit side		able throughout ex	ccavation.			
	VDDI.	TIONAL INFORM	IATIO	N		GENE	RAL REMARI					
Sketch Diag			tch Tak			(1) Rel	ocated from PF	RAIRIE_AUK_TP <sup>2</sup>  RIE_AUK_TP157	157. 7B.			
Photograp	ohs:	Yes		See add								
All dime	nsions ir			For exp	lanation	of symbo	ols and	Checked by:	Logged K. Russell-	by: Clamp	Contrac 425	

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL
Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 0197 387 4700 Fax: 0197 387 4910
Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP157A South Tees Development Corporation

E:454497.482 N:521205.005 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





#### TRIAL PIT RECORD

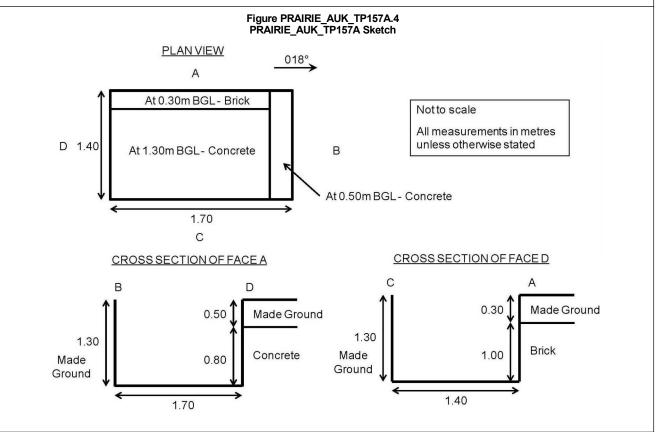
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP157A South Tees Development Corporation E:454497.482 N:521205.005 3 of 3

Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator)





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### **TRIAL PIT RECORD**

PRELIM3

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oject:		Prairie	Site Gr	ound Inv	/estigatio	n Works				Explo	ratory Hole No.
nt: South T	ees Developmen	t Corpo	ration		Location			RAIRIE_AUK_TP15			
nod (Equipment): Machi	ine Excavated (36	60 Trac	ked Exc	cavator)			1499.221 N:52 and Level (m): 8.652	1207.94	5 Start Date: 17/04/2020	Sheet:	 1 of 3
SAMPLES		I				STR	ΛΤΛ				
	- I	Dadassa		D th		SIK	AIA				
Depth Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				escription		
		<b>1</b>	5.15		3.50	content coarse. and con brick. Bo concrete	and fragments Gravel is fine t crete Cobbles	of meta o coarse are sub pangular 0-50mm	l, wire and me subangular and angular and and include diameter reb	etal pipe. and inclu include c cemente ar)).	ble and boulder Sand is fine to des red brick oncrete and d red bricks and
	PLAN					JNDWATE strike at 1.					
	4.00 Face A			<b>†</b>							
Face D	Orientation 104°		ם מכני	2.30	OTA 5	LITY					
B   0					STABI All face		e below 0.50m B	GL			
	Face C										
ADF	OITIONAL INFOR	ΜΔΤΙΩ	N		GENE	RAL REM	IARKS				
ketch Diagram:		etch Tak			(1) Rel		m PRAIRIE_AU	K_TP157	7A.		
Photographs:	Yes		See add								
All dimensions Scale 1:			For exp abbrev	lanation	of symbo	ols and Sheets	Check	ed by:	Logged K. Russell	by: -Clamp	Contract No. 4251

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP157B South Tees Development Corporation

E:454499.221 N:521207.945
| Ground Level (m): 8.652 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP157B.1 PRAIRIE\_AUK\_TP157B







Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

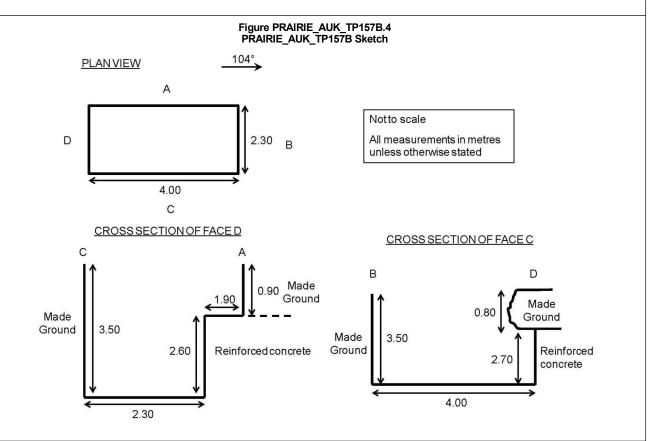
Tel: 0191 387 4700 Fax: 0191 387 4710

#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R

Tel: 0191 387 4700 Fax: 0191 387 4710

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TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works    Exploratory Hote	<b>13</b>									INCLIN	10
South Tees Development Corporation  E.4.54406.541 N:521196.157  Whithout (Equilpment)  Machine Excavated (360 Tracked Excavator)  SAMPLES & TESTS  Despth Type Need Need Need Need Need Need Need Ne	oject:		Prairie	Site Gro	ound Inv	restigatio	n Works			Exploratory Ho	ole No.
sethod (Equipment):  Machine Excavated (360 Tracked Excavator)  SAMPLES & TESTS  Depih Type Result Result Reduced Legend (Theorems)  Description  Machine Excavated (360 Tracked Excavator)  SAMPLES & TESTS  Depih Type Result Result Reduced Legend (Theorems)  Description  MADE GROUND (Brown gravelly sand with high cobble and boulders are subangular and includes red brick and concrete. Slag content is 0-25%. Slag is vesicular green white).  SAMPLES & TESTS  STRATA  Description  MADE GROUND (Brown gravelly sand with high cobble and boulders are subangular and incred brick and concrete. Slag content is 0-25%. Slag is vesicular green white).  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  SAMPLES & TESTS  STRATA  Description  MADE GROUND (Brown gravelly sand with high cobble and boulders are subangular and incred brick and concrete. Slag content is 0-25%. Slag is vesicular green white).  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Complete at 3.20m BGL.  GROUNDWATER  Water strike at 1.00m BGL.	ent: Sout	th Tees Developme	nt Corpo	oration		Location		RAIRIE AU	( TP1		
SAMPLES & TESTS  Depth Type Result Feel Reduced Legend Cheel Legend Philotress)  Depth Type Result Feel Reduced Legend Philotress MADE GROUND (Brown gravelly sand with high cobble and bould content and fragments of metal and scaffold pipes. Sand is fine to coarse. Gravel is fine to coarse subangular and includes red brick and concrete. Slag content is 0-25%. Slag is vesicular green white).  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy	thod (Equipment):	<b>)</b> :						evel (m):	.157 Start Date:	Sheet:	
Depth Type Result PNo Result PNo Result PNo Result PNO	Ma	achine Excavated (	360 Trac	ked Exc	avator)			8.657 	17/04/2020	1 of 4	
MADE GROUND (Brown gravelly sand with high cobble and bout content and fragments of metal and scaffold pieces. Sand is fine to coarse. Gravel is fine to coarse subangular and includes red brid concrete and slag. Cobbles and boulders are subangular and includes red brid concrete. Slag content is 0-25%. Slag is vesicular green white).  BE  1,200  BE  1,200  BF  1,200  BF  1,200  BF  1,200  BF  1,200  Firm to stiff indistinctly laminated orange brown mottled grey slight sandy CLAY.  Complete at 3.20m BGL.  GROUNDWATER Water strike at 1.00m BGL.  STABILITY  STABILITY	SAMPL	ES & TESTS						STRATA			
content and fragments of metal and scaffold pipes. Sand is fine to coarse subangular and includes red brick and concrete and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and spand and spand and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and boulders are subangular and incorrect and slag. Cobbles and spand and s		Type Test No Result	Water		Legend				Description		
3.50 Face A  Orientation 238°  STABILITY  Water strike at 1.00m BGL.	000 E	B2 ES3 PID J4  S5  S6  S6  S7  S7  S7  S7  S7  S7  S7  S7	<b>1</b>			2.00	content and coarse. Gra concrete an red brick an green white	fragments of movel is fine to coad slag. Cobbles d concrete. Slag).	etal and scaffold arse subangular and boulders ar g content is 0-25	d pipes. Sand is fir and includes red l re subangular and %. Slag is vesicul	ne to brick, include ar grey
3.50 Face A  Orientation 238° STABILITY		PLAN						- DCI			
Orientation  238°  STABILITY					<b>,</b> ↑↑	vvater	suike at 1.00m	DGL.			
Face C	Face D	Orientatior 238° →	n	T 20 C 6	2.00			ole from 0.50m B	GL.		
ADDITIONAL INFORMATION    GENERAL REMARKS    Sketch Diagram:   Sketch Taken						GENE	≺AL REMAR	KS .			
Photographs: Yes See additional sheets.  All dimensions in metres For explanation of symbols and Checked by: Logged by: Contract N	Photographs:	Yes		See add shee	ts.			Charled	r   10000	hu Control	et No

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP158 South Tees Development Corporation

E:454406.541 N:521196.157 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 17/04/2020 Ground Level (m): 8.657 2 of 4





Figure PRAIRIE\_AUK\_TP158.2 PRAIRIE\_AUK\_TP158



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL
Tel: 01971 387 4700 Fax: 01971 387 4710
Tel: 01972 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP158 South Tees Development Corporation

E:454406.541 N:521196.157 Start Date: 17/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.657 3 of 4

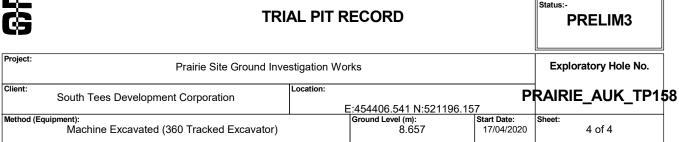


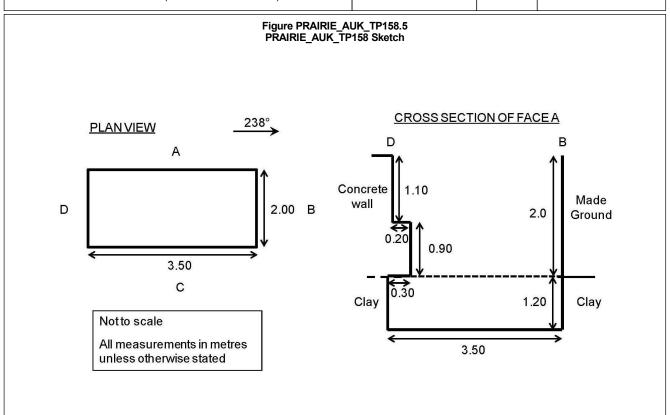


Figure PRAIRIE\_AUK\_TP158.4 PRAIRIE\_AUK\_TP158 - Spoil



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4700 Fax: 0197 375 999





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RI

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:PRFI IM3

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Project:			Prairie	Site Gr	ound Inv	/estigatio	n Works			Exploratory Hole No.
Client:	South Tee	s Development	Corpo	ration		Location	:	RAIRIE_AUK_TP15		
Method (Equipr	nent):						E:454285 Ground Lo			Sheet:
	Machine	Excavated (36	0 Trac	ked Exc	avator)			8.909	16/04/2020	1 of 3
SAI	MPLES &	TESTS					i	STRATA	1	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.20 0.40 0.60 0.60	J1 B2 ES3 PID	<0.1ppm		8.01		(0.90) - 0.90 - (0.60)	metal and w subangular 0-25%).  MADE GRO subrounded (Pipe beddir	ood. Sand is fi and includes a DUND (Brown g and includes s	ne to coarse. Gra	inker).
1.80	J4 B5		/ <b>\</b>		× × × × × × × × × × × × × × × × × × ×	(1.00)		(friable) interlar		ILT and CLAY with silty
							Complete at	2.50m BGL.		
Face D		PLAN 2.00 Face A  Orientation 090° Face C		T acce	1.50	Saturat	LITY	een 0.90-1.50m	BGL (Slow inflow	
	ADDIT	IONAL INFORM	ΙΑΤΙΟ	N		GENE	RAL REMARI	KS		
Sketch Dia	gram:	No S	ketch Ta	aken						
Photogra	phs:	Yes		See add shee						
	ensions in Scale 1:50			For exp abbrev	lanation	of symbo	ols and Sheets	Checked b	y: Logged D. Portsr	l by: Contract No. 4251

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP159 South Tees Development Corporation

E:454285.744 N:521206.190 Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator)





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### TRIAL PIT RECORD

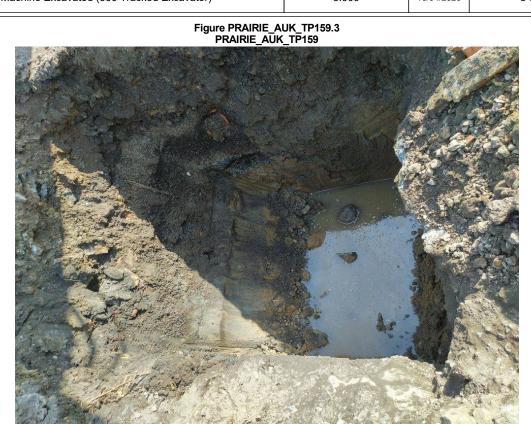
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP159 South Tees Development Corporation E:454285.744 N:521206.190

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.909 3 of 3





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#### TRIAL PIT RECORD

Status:-

S					IIN	IAL FI	I KECOKD		PRELIM3				
Project:		ı	Prairie	Site Gr	ound Inv	vestigatio	n Works		Exploratory Hole No.				
Client:	South Tee	s Development	Corpo	ration		Location	:	Р	PRAIRIE_AUK_TP16				
Method (Equipm							E:454601.562 N:521089.62 Ground Level (m):		Sheet:				
		Excavated (36	0 Trac	ked Exc	avator)		10.063	21/04/2020	1 of 3				
SAN	MPLES &	TESTS					STRATA	•					
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	С	Description					
0.20 0.30 0.70 0.75 1.00 1.10 1.30 1.50	J1 B2 9.66 9.46 9.26 9.46 9.26 9.66 9.46 9.26 9.46 9.26 9.26 9.26 9.26 9.26 9.26 9.26 9.2					(0.40)	wesicular grey).  MADE GROUND (Concrete and 10mm diameter rebar).  MADE GROUND (Brown sandy gravel with fragments of metal. Sand is fine to coarse and includes predominantly ash. Gravel is fine to coarse subangular and includes ash, clinker and coke).  Firm laminated grey brown slightly sandy CLAY. Sand is fine to medium.  at c.0.80m BGL 150mm diameter cast iron pipe (redundant) in western edge of pit running 000 degrees.						
		PLAN 3.20 Face A			<u> </u>		NDWATER undwater inflow observed.						
Face D		Orientation 090° Face C		r ace D	1.20	STABI Pit side	LITY ss and base stable throughout exce	avation.					
	ADDIT	IONAL INFORM	/ATIO	N		GENE	RAL REMARKS						
Sketch Dia	gram:	No SI	ketch T	aken									
Photograp	phs:	Yes		See add shee									
	ensions in Scale 1:50			For exp	anation	of symbo see Key S	ols and Checked by:	Logged D. Portsr	I by: Contract No. nouth 4251				

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### TRIAL PIT RECORD

PRELIM3

2 of 3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP160 South Tees Development Corporation

E:454601.562 N:521089.621 Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.063

Figure PRAIRIE\_AUK\_TP160.1 PRAIRIE\_AUK\_TP160



Figure PRAIRIE\_AUK\_TP160.2 PRAIRIE\_AUK\_TP160



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#### TRIAL PIT RECORD

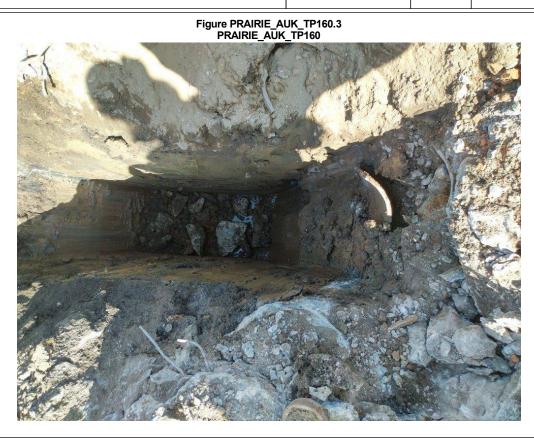
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP160 South Tees Development Corporation E:454601.562 N:521089.621

Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.063 3 of 3







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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

PRELIM3

Project:		F	Prairie	Site Gre	ound Inv	estigatio/	n Woı	ks			Explor	atory Hole	e No.
Client:	South Tee	s Development	Corno	ration		Location	:			P	RAIRIF	AUK	TP161
Method (Equipr		- Borolopinoni					Е	:454550 Ground Le	).399 N:521081.3		Sheet:		
motriou (Equipi		Excavated (36	0 Trac	ked Exc	avator)			Ground Et	10.027	20/04/2020	Once.	1 of 4	
SAI	MPLES &	TESTS							STRATA	-			
Depth	Type No	Test Result	Reduced Level	Legend	Depth (Thickness)				Description				
0.50 J1  0.80 B2 0.80 PID 1.00 ES3  1.50 J4  1.80 B5 2.00 ES6 2.00 PID 2.50 J7				9.73		(0.90) - 1.20 - (1.50) - 2.70	is fir slag ang grey MAI frag subs Slag (Eng at c. betv strullens	ne to coan, concreular and or green). DE GRO ments of angular	UND (Grey sandarse. Gravel is finite and coke. Slaginclude slag. Slaund include slaging includes contained includes contained includes slaging grey). The sconcrete structure in the structure in the second includes slaging includes concrete structure in the second includes slaging includes concrete in the second includes	e to coarse su g content is 25 g content is 75 and black sand ne to coarse. ( crete, slag, asl and concrete. ucture close to oted. Pit exter possibly rewe	bangular a -50%. Cob 5-100%. Sl y gravel as Gravel is fin and brick Slag conte pit walls). ided west brked due	and include bles are lag is vesioned cobbles ne to coar c. Cobbles ent is 25-5 to avoid. to adjacer	es cular s with se a are 0%.
		PLAN				GROU			v observed.				
Q		3.50 Face A Orientation		race	2	No gio	ai iuwa	iniiov	· Spoci vod.				
Face D		000°→			2.50	STABI Pit side		base sta	ble throughout exc	cavation.			
	ADDIT	IONAL INFORM	MATIO	N		GENF	RAL F	REMAR	 ⟨S				
Sketch Dia			tch Tal						und pit to east and	west.			
Photogra	phs:	Yes		See add shee									
	ensions in Scale 1:50		<u>'</u>	For expl	anation iations s	of symbo	ols and	d	Checked by:	Logged D. Portsr	l by: nouth	Contract 4251	

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

#### TRIAL PIT RECORD

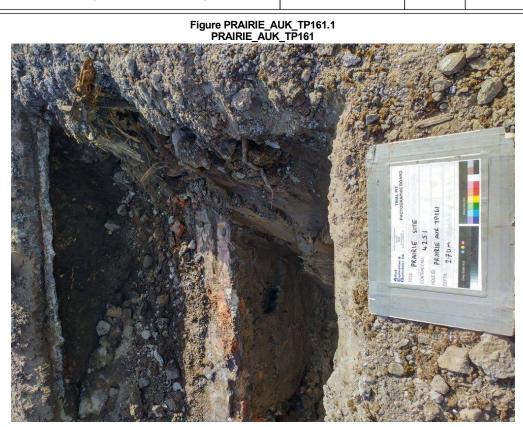
PRELIM3

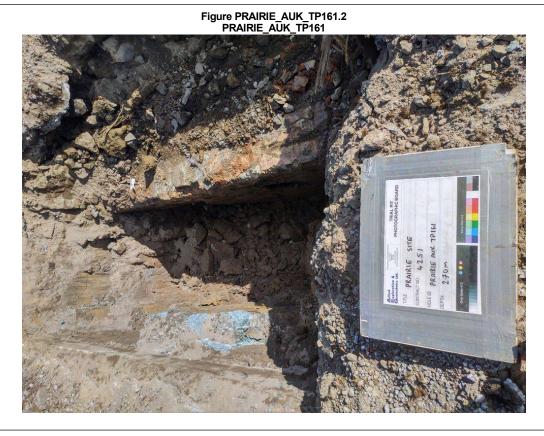
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP161 South Tees Development Corporation E:454550.399 N:521081.305

Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.027 2 of 4





## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP161 South Tees Development Corporation E:454550.399 N:521081.305

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 20/04/2020 Ground Level (m): 10.027 3 of 4





Figure PRAIRIE\_AUK\_TP161.4 PRAIRIE\_AUK\_TP161 - Spoil



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4700 Fax: 0197 375 999

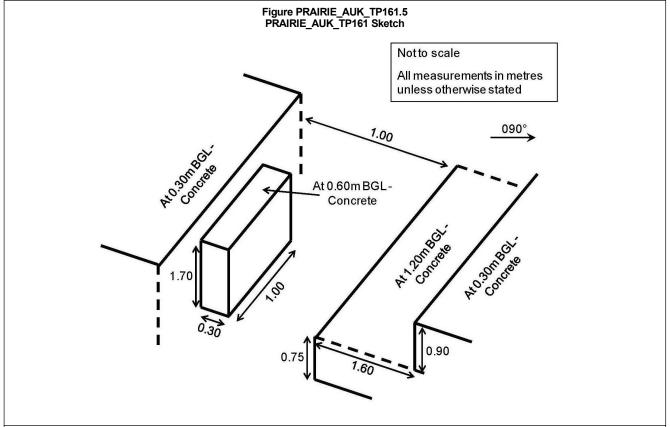


#### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP161 South Tees Development Corporation E:454550.399 N:521081.305 Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.027 4 of 4



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

PRELIM3

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ject:	Prairie Site Ground I	nvestigation	Works		Exploratory Hole No.
nt: South Tees Development	Corporation	Location:		P	RAIRIE_AUK_TP1
hod (Equipment):			E:454442.350 N:521 Ground Level (m):	100.483   Start Date:	Sheet:
Machine Excavated (360	Tracked Excavato	-)	10.562	14/04/2020	1 of 3
SAMPLES & TESTS			STRA	ATA	
Depth Type Test No Result	Reduced Level Legen	Depth (Thickness)		Description	
J1 B2 J3 ES4 PID <0.1ppm J5 J7 B8	7.56 × × × × × × × × × × × × × × × × × × ×		to coarse subangular ar content is 50-75%. Cob brick. Slag content is 25	crete).  It brown sandy grave of wood. Sand is find includes brick, slables are angular and 5-50%. Slag is vesic to firm brown silty slandy gravel. Sandy gravel. Sandy gravel sandy gravel sandy gravel.	el with medium cobble e to corse. Gravel is fine ag, ash and clinker. Slag d include slag and red ular grey).  ightly sandy clay with I is fine to coarse. Gravel and includes ash and
PLAN  4.00 Face A  Orientation 270° Face C  ADDITIONAL INFORM  ketch Diagram: No St	IATION  See additional sheets.	STABIL Pit sides	NDWATER ed strata at 2.80m BGL wit		neavy inflow).

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

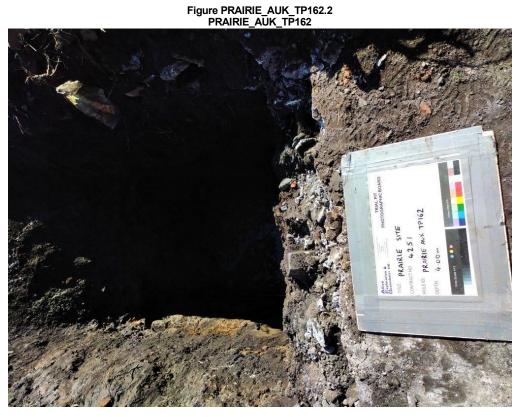
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP162 South Tees Development Corporation E:454442.350 N:521100.483

Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.562 2 of 3







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP162 South Tees Development Corporation E:454442.350 N:521100.483 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 Ground Level (m): 10.562 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

PRELIM3

Location:   E.454390.977.N:521100.487   PRAIRIE_AUK_T								I IXELINIS
South Tees Development Corporation  Without (Equipment):  Machine Excavated (360 Tracked Excavator)  SAMPLES & TESTS  Dev. 10	ject:	F	Prairie	Site Gro	ound Inv	estigatio	n Works	Exploratory Hole No.
### Machine Excavated (360 Tracked Excavator)    SAMPLES & TESTS   Depth   Type   Test   No   Test   N	ent: South T	ees Development	Corpo	ration		Location	ŀ	PRAIRIE_AUK_TP
Depth Type Result S Reduced Legend Depth Level Legend Depth Thickness Description  Description  Description  Description  MADE GROUND (Brown black sand with many rootlets. Sand is fire to coarse and includes ash).  MADE GROUND (Red brown black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse and includes ash).  MADE GROUND (Red brown black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse and includes capital sand is fine to coarse. Gravel is fine to coarse and includes ash. Description  ASE GROUND (Black gravel and cabbles with fragments of wood. Sand is fine to coarse. In pill found within strata).  ASE GROUND (Black gravel and cabbles with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse. As the sand i		ine Excavated (36	0 Trac	ked Exc	avator)		Ground Level (m): Start Date:	
MADE GROUND (Brown black sand with many rootlets. Sand is fir to coarse and includes ash).  MADE GROUND (Brown black sand with many rootlets. Sand is fir to coarse and includes ash).  MADE GROUND (Bed brown black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse and includes concrete, red brick, and slag. Slag content is coarse. Plo 2-5%. Slag is vesicular. Engineer notes 75mm diameter electric cable (broken and loase) in pill found includes concrete, slag and ash. Cobbles are subangular and include slag slag concrete and ash. Cobbles are subangular and includes concrete, slag and ash. Cobbles are subangular and includes concrete, slag and ash. Cobbles are subangular and includes c	SAMPLES	& TESTS	<u> </u>				STRATA	
MADE GROUND (Brown black sand with many rootlets. Sand is fir to coarse and includes ash).  MADE GROUND (Brown black sand with many rootlets. Sand is fir to coarse and includes ash).  MADE GROUND (Bed brown black sand y gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse and includes control coarse and includes control coarse in pill found instination.  MADE GROUND (Black gravel and cobbles with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse and includes control coarse in pill found includes control cable (broken and loos en pill found includes control cable (broken and loos set subangular and includes stag. Slag content is 50-75%. Slag is vesicular. Strong hybrid share subangular and includes control cable (or fravel is fine to coarse subangular and includes control cable (or fravel is fine to coarse subangular and includes control cable (or fravel is fine to coarse subangular and includes control cable (or fravel is fine to coarse and includes control cable (or fravel is fine to coarse. Gravel is fine to coarse. Grave	Depth Type	e Test Result	Nater		Legend		Description	
Saturated strata at 1.10m BGL (slight inflow).  Saturated strata at 1.10m BGL (slight inflow).  STABILITY Pit sides stable throughout excavation.	0 B2 0 ES3 0 PID 0 J4 0 B5 0 ES6 0 PID	4.5ppm 2.1ppm		8.88		0.10 	to coarse and includes ash).  MADE GROUND (Red brown black sandy wood. Sand is fine to coarse. Gravel is fin clinker, ash, coke, concrete, red brick and 0-25%. Slag is vesicular. Engineer notes cable (broken and loose in pit) found withi MADE GROUND (Black gravel and cobble Gravel is fine to coarse subangular and in ash. Cobbles are subangular and include 50-75%. Slag is vesicular. Strong hydroca Soft to firm grey brown slightly sandy CLA	gravel with fragments of e to coarse and includes slag. Slag content is 75mm diameter electric n strata). es with fragments of wood. cludes concrete, slag and slag. Slag content is rbon/creosote odour).
ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  GENERAL REMARKS	age ADE	3.50 Face A  Orientation 270° Face C		N.	1.20	STABI Pit side	ed strata at 1.10m BGL (slight inflow).  LITY s stable throughout excavation.	
Photographs: Yes See additional sheets.  All dimensions in metres For explanation of symbols and Checked by: Logged by: Contract No				shee	ts.	of a multi-	Checked by Logge	ed by: Contract No.

### TRIAL PIT RECORD

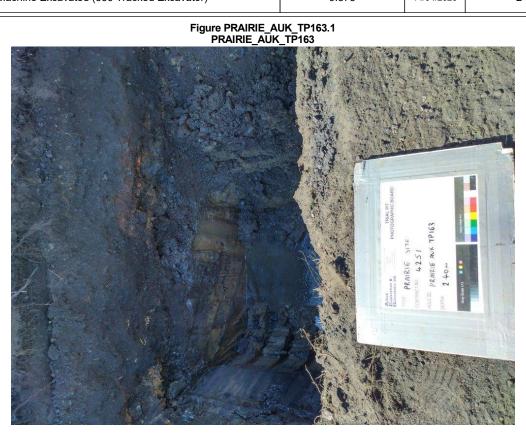
PRELIM3

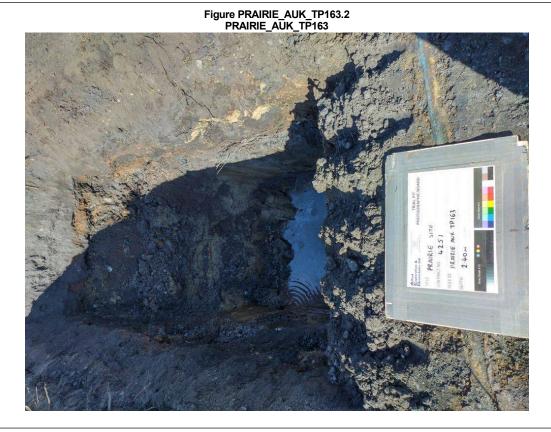
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP163 South Tees Development Corporation E:454390.977 N:521100.487

Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP163 South Tees Development Corporation E:454390.977 N:521100.487 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 3 of 3



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### TRIAL PIT RECORD

PRELIM3

U)										
Project:			Prairie	Site Gr	ound In	vestigatio	n Works			Exploratory Hole No.
Client:	South Tees Development Corporation									RAIRIE_AUK_TP1
Method (Equipr							E:45433 Ground L	8.024 N:521112 evel (m):		Sheet:
	Machine	Excavated (36	0 Trac	ked Exc	cavator)			10.003	16/04/2020	1 of 4
SAI	MPLES &	TESTS						STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.50 0.60 0.70 0.70 1.00 1.30 1.40 1.80 2.60 2.80	J1 B2 ES3 PID B4 ES5 PID J6 B7 J8 B9	<0.1ppm		9.60 9.20 8.80 7.60	× × × × × × × × × × × × × × × × × × ×	(0.40) (0.40) (0.40) (1.20) (1.20) (1.40) (1.40) (1.40)	coarse. Gra and slag. S MADE GRC coarse. Gra concrete ar MADE GRC subangular Slag conter MADE GRC fine to coars clinker and  Soft to firm lenses.	evel is fine to coal lag content is 0-2 DUND (Black browel is fine to coal d slag. Slag con DUND (Grey gravand includes slat is 100%. Slag DUND (Brown rese. Gravel is fine coke).	arse subangular 25%. Slag is ver pwn grey sandy arse subangular attent is 25-50%. The subangular cobbles are is vesicular). The subangular are to medium subangular s	gravel. Sand is fine to and includes ash, clinker sicular). gravel. Sand is fine to and includes ash, clinker, Slag is vesicular). Gravel is fine to coarse angular and include slag.  y gravelly sand. Sand is bangular and includes  CLAY with silty sand
		PLAN 3.20 Face A			<u> </u>		  INDWATER ted strata at 2.	40m BGL (Slow in	nflow).	
Face D		Orientation 000°		1 2 0		STABI Pit side		able throughout e	xcavation.	
	ADDITI	IONAL INFORM	/ATIOI	N		GENE	RAL REMAR	KS		
Sketch Dia	gram:	No S	ketch Ta	aken						
Photogra	phs:	Yes		See add						
	ensions in Scale 1:50			For exp abbrev	lanation	of symbo see Key S	ols and sheets	Checked by	: Logged D. Portsi	

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

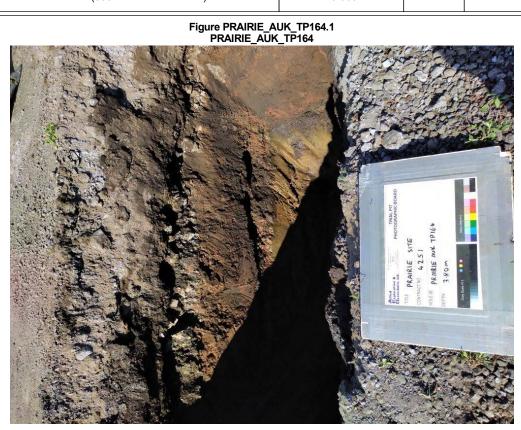
PRELIM3

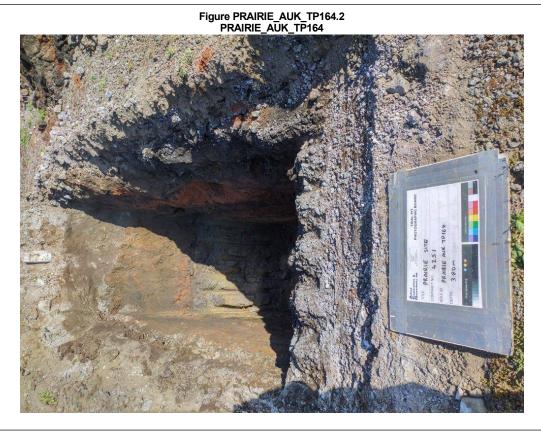
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP164 South Tees Development Corporation E:454338.024 N:521112.664

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.003 2 of 4





### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

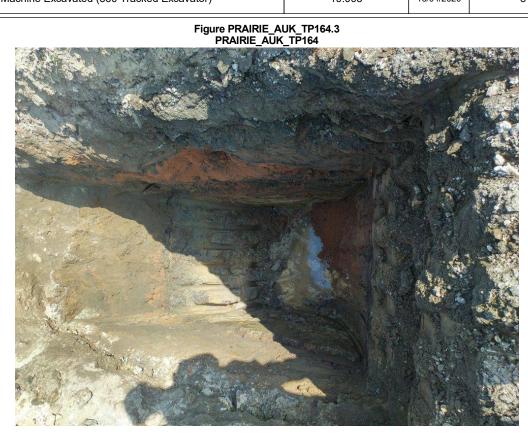
PRELIM3

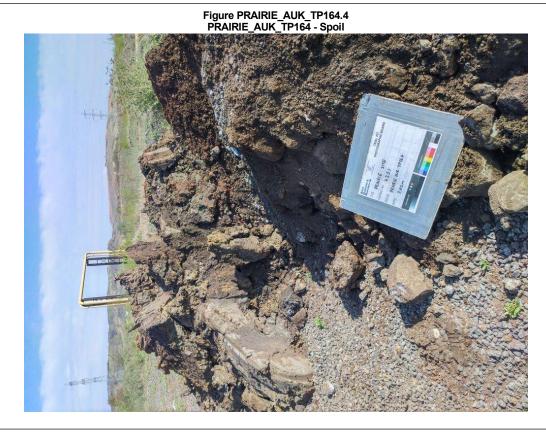
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP164 South Tees Development Corporation E:454338.024 N:521112.664

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.003 3 of 4



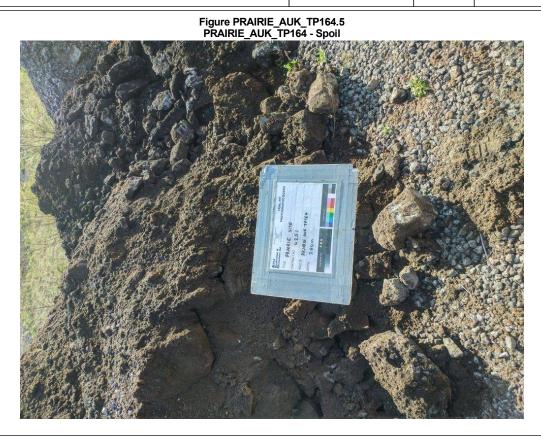




### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP164 South Tees Development Corporation E:454338.024 N:521112.664 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 16/04/2020 Ground Level (m): 10.003 4 of 4



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### **TRIAL PIT RECORD**

PRELIM3

Project:		F	Prairie S	Site Gro	ound Inv	estigatio	n Wor	ks			Explo	oratory Hole No.
Client:	South Tee	s Development	Corpora	ation		Location	:			Р	RAIRI	E_AUK_TP16
Method (Equipn							Е	:454460 Ground Lo		Start Date:	Sheet:	
	Machine	Excavated (360	) Irack	ed Exc	avator)				13.490	15/04/2020		1 of 3
SAN	//PLES &	TESTS							STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Description		
0.50 0.80 1.00 1.50 1.80 2.50 2.80 3.30 3.30	J1 B2 ES3 PID J4 B5 J6 B7 PID ES8	<0.1ppm		10.89		(2.60)	at c. MAL cont coat cont cat c. c. clay	2.60m EDE GRC tent and sesicular) of c.0.00r	BGL concrete slown pockets of ash include red and yellow be included. The second includes the second included by the second includes a second included includes a second included includes a second include	ab - pit exten- yellow sandy and is fine to es red and ye r and include cular). Engineer note	ded 3.00i gravel w coarse. (ellow brick yellow ars	m east. ith high cobble Gravel is fine to k, slag and nd red brick. Slag
		PLAN 5.00				GROU No gro			v observed.			
O e o o o o o o o o o o o o o o o o o o		Face A  Orientation  270°  Face C	IATION			GENE (1) Brid measu	RAL F k wall re. Re k wall	REMARI found in	unstable throughout  KS Face A - set back otographs and sket pit (between Face A	under the cond	er details.	•
Photograp	ohs:	Yes		See add sheet								



### TRIAL PIT RECORD

PRELIM3

2 of 3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP165 South Tees Development Corporation E:454460.835 N:521028.046

Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.490

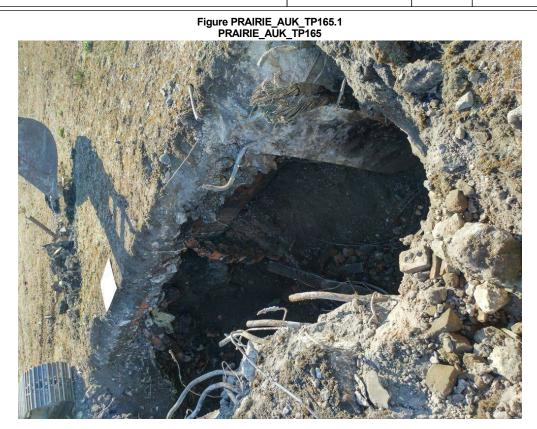


Figure PRAIRIE\_AUK\_TP165.2 PRAIRIE\_AUK\_TP165

### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

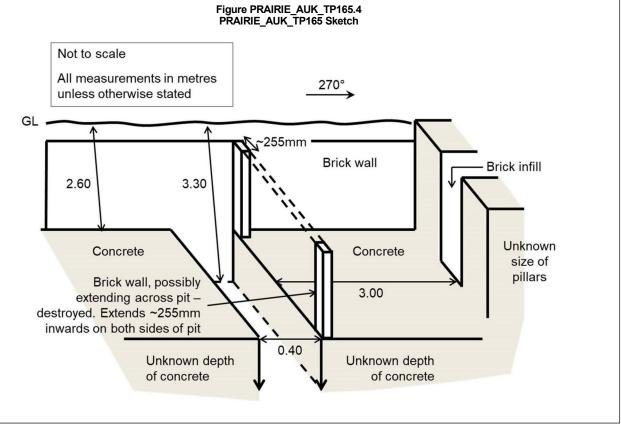
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP165 South Tees Development Corporation E:454460.835 N:521028.046 Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.490 3 of 3





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### TRIAL PIT RECORD

Status:-

(G					IN	IAL FI	II RECORD		PRELIM3
Project:		F		Exploratory Hole No.					
Client:	South Tee	s Development	Corno	ration	:	Р	RAIRIE_AUK_TP16		
Method (Equipn		- Development	Оогро				E:454598.318 N:520991.33		Sheet:
Metrioa (Equipi		Excavated (360	0 Tracl	ked Exc	cavator)		11.088	20/04/2020	1 of 3
SAM	MPLES &	TESTS				Ι	STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	С	Description	
0.35 0.40 0.45 0.50 0.60 0.70 1.00 1.10 1.20	J1 B23 ES3 PID J4 B5 PID B7 ES8	0.2ppm <0.1ppm		10.79 10.59 10.29 9.59		0.30	MADE GROUND (Grey sandy is fine to coarse subangular ar coke. Slag content is 25-50%.  MADE GROUND (Black brown and includes predominantly as to subrounded and includes as MADE GROUND (Soft to firm Firm slightly laminated brown of Complete at 1.50m BGL.	nd includes si Gravel is ves n sandy grave sh. Gravel is f sh, clinker an grey mottled	lag, concrete, ash and sicular grey). el. Sand is fine to coarse fine to medium subangular d coke).
		PLAN 3.50 Face A			<u> </u> ↑↑		INDWATER undwater inflow observed.		
Face D		Orientation 090°		T acce	1.20 ——→	STABI Pit side	LITY es and base stable throughout exca	avation.	
	ADDIT	IONAL INFORM	OITA	١		GENE	RAL REMARKS		
Sketch Dia	gram:	No Sł	ketch Ta	ken					
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50		·	or exp	lanation iations s	of symbo ee Key S	ols and Checked by:	Logged D. Portsr	I by: Contract No. mouth 4251

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP166 South Tees Development Corporation

E:454598.318 N:520991.331 Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 11.088 2 of 3

Figure PRAIRIE\_AUK\_TP166.1 PRAIRIE\_AUK\_TP166









### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP166 South Tees Development Corporation E:454598.318 N:520991.331 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 20/04/2020 Ground Level (m): 11.088 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-DDEI IM2

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Project:		l	Prairie	Site Gre	ound Inv	estigatio	n Works			Exploratory Hole No.
Client:	South Tees Development Corporation								Р	RAIRIE_AUK_TP1
Method (Equipm		Excavated (36	0 Trac	ked Exc	avator)			2.468 N:520987. evel (m): 13.208	280 Start Date: 15/04/2020	Sheet: 1 of 2
SAM	//PLES &							STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
0.50 0.80 1.50 1.80 2.40 2.50 2.50	J1 B2 J3 B4 J5 ES6 PID	<0.1ppm		10.61		2.60	content. Sa and include angular and MADE GRO Cobbles an	nd is fine to coar s red and yellow I include red and	rse. Gravel is fir brick, slag and l yellow brick. S bles and boulde ngular and inclu	gravel with low cobble ne to coarse subangular concrete. Cobbles are lag content is 0-25%).  ers with rebar (10-50mm). ude concrete).
		PLAN 5.00 Face A			<b>→</b>	GROU No gro	INDWATER undwater inflo	w observed.		
Face D		Orientation 270°		7 20 00 00	1.20	STABI Pit side		unstable throughc	out excavation.	
	ADDIT	ONAL INFORM	ΛΑΤΙΩ	NI		GENE	RAL REMAR	K.S.		
Sketch Diag			ketch T			JENE	NAL NEWAR	NO.		
Photograp	phs:	Yes		See add shee						
	nsions in			For expl	anation	of symbo see Key S	ols and heets	Checked by	: Logged D. Portsr	d by: Contract No.

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

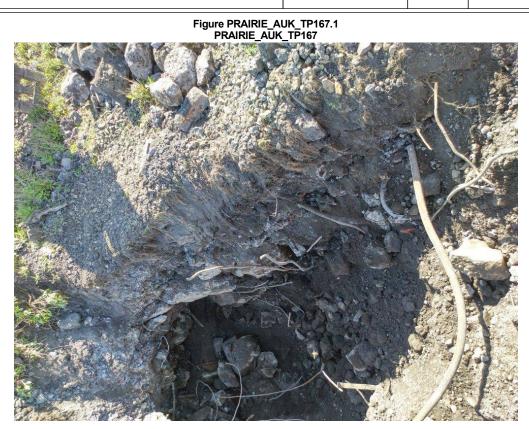
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP167 South Tees Development Corporation E:454482.468 N:520987.280

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 15/04/2020 Ground Level (m): 13.208 2 of 2







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### TRIAL PIT RECORD

Status:-

Œ					IN	IAL FI	I RECORD		PRELIM3
Project:	Prairie Site Ground Investigation Works								
Client:	South Tees	s Development (	Corpo	ration		Location	:	Р	RAIRIE_AUK_TP1
Method (Equipn		·	•				E:454395.577 N:521002.4 Ground Level (m):		Sheet:
	Machine	Excavated (360	) Trac	ked Exc	avator)		10.121	09/04/2020	1 of 2
SAM	MPLES &	TESTS			i		STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
0.05 0.05 0.20 0.30 0.60 0.80	ES1 PID J2 B3 J4 B5	<0.1ppm		9.72 9.02		(1.00)	MADE GROUND (Brown clay to coarse and includes ash).  MADE GROUND (Brown blay metal and wood. Sand is fine subangular and includes ash 0-25%. Slag is vesicular)  MADE GROUND (Soft to firm cobble content. Cobbles are Firm to stiff brown red grey Complete at 2.10m BGL.	ck red sandy g to coarse. Gra clinker and si grey mottled angular and in	ravel with fragments of avel is fine to coarse lag. Slag content is black silty clay with low clude red brick).
		PLAN 4.00 Face A			<u> </u>		NDWATER undwater inflow observed.		
Face D		Orientation 180°		race B	2.00	STABI Pit side	LITY es stable throughout excavation.		
		Face C			<b>」</b> ↓				
	ADDITI	ONAL INFORM	ATIO	N		GENE	RAL REMARKS		
Sketch Dia	gram:	No Sk	etch Ta	aken	_				
Photogra	phs:	Yes		See add shee					
	ensions in Scale 1:50	metres	1	For expl abbrevi	anation	of symbo see Key S	ols and Checked by:	Logged D. Portsr	d by: Contract No. 4251

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP168 South Tees Development Corporation E:454395.577 N:521002.419

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 2 of 2

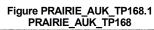




Figure PRAIRIE\_AUK\_TP168.2 PRAIRIE\_AUK\_TP168 - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Project:		ſ	Prairie	Site Gr	ound Inv	estigation/	n Works Exploratory Hol	e No.
Client:	South Tee	es Development	Corpo	ration		Location	PRAIRIE_AUK	TP1
Method (Equipn		.o Bevelopinent		Tation			E:454473.400 N:520964.531   Ground Level (m):   Start Date:   Sheet:	
метной (Ефигрії		e Excavated (36	) Trac	ked Exc	avator)		12.930 State Date: 31eet. 15/04/2020 1 of 4	
SAM	MPLES &	TESTS				1	STRATA	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	
0.50 0.80 1.50	J1 B2 ES3			12.23		(1.00)	MADE GROUND (Red brown yellow sandy gravel with high cot content and many rootlets. Sand is fine to coarse. Gravel is fine coarse subangular and includes red and yellow brick, slag and concrete. Cobbles are angular and includes red and yellow brick slag content is 0-25%. Slag is vesicular grey). at c.0.70m BGL concrete slab (coke oven slab). Pit extended 3.00m east.  MADE GROUND (Red brown yellow sandy gravel with high cot content and pockets of ash. Sand is fine to coarse. Gravel is fine coarse subangular and includes red and yellow brick, slag and concrete. Cobbles are angular and include red and yellow brick content is 0-25%. Slag is vesicular grey. Engineer also notes in plates, 50mm rebar, cast iron metal objects). at c.1.20m BGL concrete. Flat concrete structure with 3 No. 460mm diameter cast iron pipes cast into the structure running Pipes are hollow (empty) and are voided beneath to a depth of BGL. Pit extended 3.00m east.  MADE GROUND (Red brown yellow sandy gravel with high cot content and pockets of ash. Sand is fine to coarse. Gravel is fire coarse subangular and includes red and yellow brick, slag and concrete. Cobbles are angular and include yellow and red brick content is 0-25%. Slag is vesicular grey. Engineer also notes in plates, 50mm rebar, cast iron metal girders and other unknown objects).  at c.2.20m BGL concrete. Flat concrete structure with railway at extremities. Pit extended 9.00m east.  **Complete at 2.20m BGL.**	bble to Slag on Slag on metal
		PLAN				GROU	NDWATER	
<u></u>		15.00			<b>→</b>	11	undwater inflow observed.	
Face A  Orientation 270°  Face C						STABI Pit side	LITY s moderately unstable throughout excavation.	
	ΔΠΠΙ	IONAL INFORM	1ΔΤΙΩ	N		GENE	RAL REMARKS	
ADDITIONAL INFORMATION  Sketch Diagram: No Sketch Taken						GENE	IVAL INLIVIATIVO	
Photogra	phs:	Yes		See add				
	ensions in Scale 1:50	I				of symbo see Key S		

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

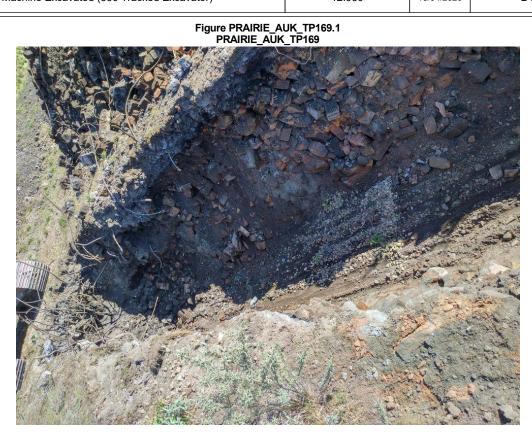
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP169 South Tees Development Corporation

E:454473.400 N:520964.531 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 15/04/2020 Ground Level (m): 12.930 2 of 4





### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client:

Location: PRAIRIE\_AUK\_TP169 South Tees Development Corporation

E:454473.400 N:520964.531 Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP169 South Tees Development Corporation E:454473.400 N:520964.531 Start Date: 15/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 12.930 4 of 4

Figure PRAIRIE\_AUK\_TP169.5 PRAIRIE\_AUK\_TP169 - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-DDEI IM2

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Project:	Exploratory Hole No.							
Client:	South Tee	s Development	Corpo	ration		Location		PRAIRIE_AUK_TP1
Method (Equipn			· ·				E:454583.361 N:521042.047  Ground Level (m): Start Date:	Sheet:
	Machine	Excavated (36	U Irac	ked Exc	avator)		10.409 21/04/20	1 of 3
SAN	MPLES &	TESTS				1	STRATA	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description	n
0.30 0.40 0.50 0.50 1.00 1.00 1.50 1.80	J1 B2 ES3 PID ES4 PID J5 PID B6	<0.1ppm 17.5ppm 1.1ppm		9.71 9.61 9.11 8.61		(0.50)  0.70  0.80  (0.50)  1.30  (0.50)  1.80	MADE GROUND (Grey sandy gravel wito coarse. Gravel is fine to coarse subal concrete, ash, coke and red brick. Slag vesicular grey green).  MADE GROUND (Brown black grey sat content. Sand is fine to coarse and including Gravel is fine to coarse subangular and red brick and slag. Cobbles are angular concrete. Slag content is 25-50%. Slag MADE GROUND (Concrete and cast indexcavate down eastern edge of slab).  MADE GROUND (Firm grey mottled blawith yellow brown sand lenses. Sand is hydrocarbon odour).  Firm to stiff (friable) laminated red brow to medium sand lenses.  Complete at 1.80m BGL.	ngular and includes slag, content is 25-50%. Slag is andy gravel with high cobble udes predominantly ash. includes ash, clinker, coke, and include brick and is vesicular grey green). On cover. Pit extended to ack silty slightly sandy clay fine to medium. Slight
		PLAN					NDWATER undwater inflow observed.	
Face D		6.50 Face A  Orientation 000° Face C		Tace D	6.50	STABI		
	ADDIT	IONAL INFORM	1ATIO	N		GENE	RAL REMARKS	
Sketch Diagram: No Sketch Taken								
Photograp	phs:	Yes		See add shee				
	ensions in Scale 1:50			For expl	anation	of symbo see Key S		ged by: Contract No.

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

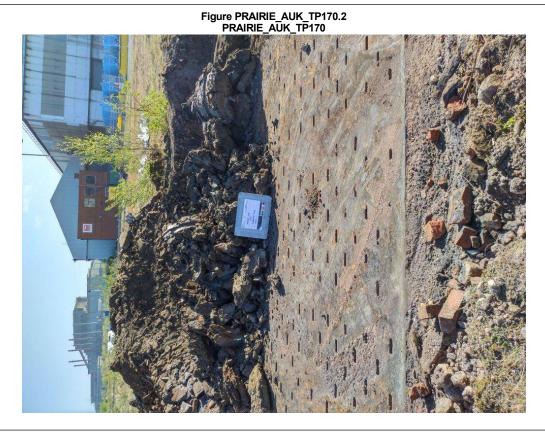
Client: Location: PRAIRIE\_AUK\_TP170 South Tees Development Corporation E:454583.361 N:521042.047

Start Date: 21/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.409 2 of 3

Figure PRAIRIE\_AUK\_TP170.1 PRAIRIE\_AUK\_TP170







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP170 South Tees Development Corporation E:454583.361 N:521042.047 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 21/04/2020 Ground Level (m): 10.409 3 of 3



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### TRIAL DIT DECORD

Status:-

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Project:	Prairie Site Ground Investigation Works									Explo	ratory Hole No.
Client:	South Tee	s Development	Corno	ration		Location	:		P	 RAIRIF	_AUK_TP17
Method (Equipm		.o Bevelopinent	Оогро				E:454564 Ground L	4.178 N:520951.2		Sheet:	
Motriou (Equipri		e Excavated (36	0 Trac	ked Exc	avator)		Ground 2	11.593	20/04/2020	Gricot.	1 of 3
SAN	MPLES &	TESTS						STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
0.50 0.60 0.70 0.75 1.00 1.20 1.30 1.50 1.80	PID J1 B2 ES3 PID J4 B5 ES6 J7 PID B8	1.4ppm 1.3ppm <0.1ppm		11.09		(0.50) (0.50) (0.50) 1.30 	is fine to cosslag, concre angular and vesicular gr MADE GRO and include to subround MADE GRO Firm lamina lenses.	DUND (Grey sand arse. Gravel is fin te and coke. Gra I includes slag. Coey green).  DUND (Brown blact is predominantly a led and includes a DUND (Soft to firm ted brown CLAY).	e to coarse su vel slag content obble slag con ck sandy grave ish. Gravel is f ash, clinker an in grey mottled	bangular nt is 25-50 tent is 75- el. Sand is ine to med d coke). silty clay).	and include %. Cobbles are 100%. Slag is fine to coarse dium subangular
Face D		PLAN 3.50 Face A  Orientation 090°		Tace D	2.00	No gro		w observed.	cavation.		
		Face C			_ ↓						
	ADDIT	TONAL INFORM	ИАТІО	N		GENE	RAL REMAR	KS			
Sketch Diaç	gram:	No S	ketch Ta	aken							
Photograp	ohs:	Yes		See add shee							
	nsions in Scale 1:50		-	For exp	lanation iations s	of symbo	ols and heets	Checked by:	Logged D. Portsr	d by: mouth	Contract No. 4251

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP171 South Tees Development Corporation

E:454564.178 N:520951.248 Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





Figure PRAIRIE\_AUK\_TP171.2 PRAIRIE\_AUK\_TP171

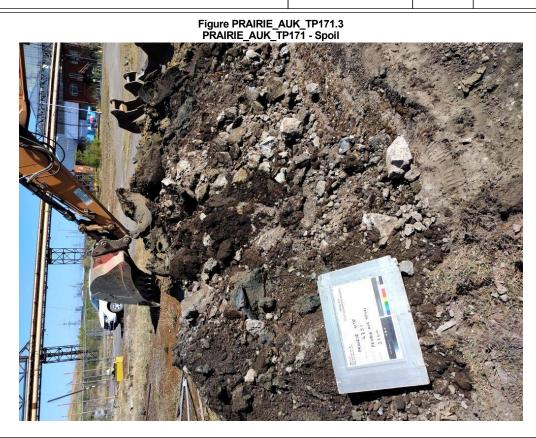




### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP171 South Tees Development Corporation E:454564.178 N:520951.248 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 20/04/2020 Ground Level (m): 11.593 3 of 3



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### TRIAL PIT RECORD

Status:-

South Tees Development Corporation   Location:   PRAIRIE_AUK_TP1	(S					IIX	IAL FI	I KECOKD		PRELIM3
South Tees Development Corporation  E-45508.970.N.520896.803  Brown Level 2.862  SAMPLES & TESTS  Depth Type Tests 1	Project:		F	Prairie	Site Gre	ound Inv	estigatio	n Works		Exploratory Hole No.
Aethod (Equipment) Machine Excavated (360 Tracked Excavator)  SAMPLES & TESTS  DND	Client:	South Tee	s Development	Corpo	ration		Location	:	Р	RAIRIE AUK TP17
SAMPLES & TESTS  Devon Type Result  12.862   Os04/2020   1 of 3  SAMPLES & TESTS  Devon Type Result  12.862   STRATA  Description  Description  Description  MADE GROUND (Brown clayery sand with many rootlets. Sand is fine to care subangular and includes slag, brick and concrete. Cobbles are subangular and includes slag, brick and concrete. Cobbles are subangular and includes slag, brick and concrete. Cobbles are subangular and includes slag, brick and concrete. Cobbles are subangular and includer red and yellow brick, concrete and slag. Slag content is 25-50%. Slag is vesicular).  10.78   10.79   2.10   2.10   10.79   2.10									)5	
Description  Type Test No. Test Reduce   Logand   Description    Reduced   Logand   Description    MADE GROUND (Brown clayey sand with many rootlets. Sand is fine to coarse sand includes ash).  MADE GROUND (Brown sandy gravel with medium cobble content with fragments of metal, wire, plastic and wood. Sand is fine to coarse standardiar and includes slag, brick and concrete, Cobbless are subangular and includes slag, brick and concrete, Cobbless are subangular and include red and yellow birck, concrete and slag. Slag content is 25-50%. Slag is vestrularly individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction was centered in the pit individual water pippes. Concrete obstruction.  PLAN 2.50 Face A  Orientation 180° Orientation			Excavated (360	) Trac	ked Exc	avator)				
1.40 J1 1.60 B5 1.50 B2 1.50 B5 1.50 B	SAN	MPLES &	TESTS					STRATA		
DAU  DAU  DAU  DAU  DAU  DAU  DAU  DAU	Depth	Type No		Water		Legend	Depth (Thickness)	С	Description	
ADDITIONAL INFORMATION  Sketch Diagram:  No groundwater inflow observed.  STABILITY Pit sides unstable throughout excavation.  GENERAL REMARKS  GENERAL REMARKS	0.40 0.60 0.80 0.80 1.40 1.60	B2 ES3 PID	<0.1ppm				(1.90)	to coarse and includes ash).  MADE GROUND (Brown sand with fragments of metal, wire, coarse. Gravel is fine to coars and concrete. Cobbles are sul brick, concrete and slag. Slag  at c.2.10m BGL engineer no 'Industrial water pipes'. Concrete and ran E-W - unknown dimer Terminated at 2.10m BGL - du	dy gravel with plastic and we subangular cangular and content is 25 otes possible ete obstructionsions due to	medium cobble content cod. Sand is fine to and includes slag, brick include red and yellow -50%. Slag is vesicular).
			2.50 Face A  Orientation  180°  Face C		N aken		STABI Pit side	undwater inflow observed.  LITY es unstable throughout excavation.		
All dimensions in metres For explanation of symbols and Checked by: Logged by: Contract No.	Photograp	phs:	Yes		shee	ts.				

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP172 South Tees Development Corporation E:454508.970 N:520896.605

Start Date: 06/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3











### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP172 South Tees Development Corporation E:454508.970 N:520896.605 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 06/04/2020 Ground Level (m): 12.862 3 of 3

Figure PRAIRIE\_AUK\_TP172.3 PRAIRIE\_AUK\_TP172 - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL DIT DECORD

Status:-

Client: South Tees Development Corporation  South Tees Development Corporation  Machine Excavated (360 Tracked Excavator)  SAMPLES & TESTS  Cerit No. 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	G	IRI	AL PIT RECORD	PRELIM3
South Tees Development Corporation    E454451 197 N:520922 212   Start Date   Start	Project: F	rairie Site Ground Inve	stigation Works	Exploratory Hole No.
Machine Excurvated (360 Tracked Excavator)   Ground Level (not)   Grou	Client: South Tees Development	Corporation		PRAIRIE_AUK_TP17
Despin   Type   Type   Reduced   Legend   Check   Ch	Method (Equipment): Machine Excavated (360	Tracked Excavator)	Ground Level (m): Start Date:	
ADDITIONAL INFORMATION    1131	SAMPLES & TESTS		STRATA	
0.60 0.60 0.60 0.60 0.60 0.60 0.60 0.60	Depth Type Test No Result	Reduced Level Legend (T	Depth hickness) Description	
ADDITIONAL INFORMATION  A.00  Face A  Orientation 180°  Face C  No groundwater inflow observed.  STABILITY Pit sides stable throughout excavation.  GENERAL REMARKS (1) Material too friable/sandy for HSV testing.	0.80 B2 ES3 0.90 <0.1ppm <0.1p	11.01	to coarse and includes ash).  MADE GROUND (Grey gravel. Gravel is subangular to subrounded and includes at 75-100%. Slag is vesicular).  Soft to firm brown grey thinly and thickly with occasional sand lenses.	medium to coarse slag. Slag content is
Photographs: Yes See additional sheets.	4.00 Face A  Orientation 180° Face C  ADDITIONAL INFORM  Sketch Diagram: No Sk	ATION etch Taken See additional	No groundwater inflow observed.  STABILITY Pit sides stable throughout excavation.  GENERAL REMARKS	

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP173 South Tees Development Corporation

E:454451.197 N:520922.212 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 2 of 3

Figure PRAIRIE\_AUK\_TP173.1 PRAIRIE\_AUK\_TP173



Figure PRAIRIE\_AUK\_TP173.2 PRAIRIE\_AUK\_TP173



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP173 South Tees Development Corporation E:454451.197 N:520922.212 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 Ground Level (m): 11.407 3 of 3



### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R0

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

PRELIM3

										-		
Project:			Prairie	Site Gr	ound Inv	estigation	n Works			Explo	oratory Hole No.	
Client:	South Tees	s Development	Corpo	ration		Location:			Р	RAIRI	E_AUK_TP1	
Method (Equipn		Excavated (36	0 Trac	ked Exc	avator)		E:454464 Ground L	1 <u>.960 N:520888.0</u> evel (m): 11.852	025 Start Date: 08/04/2020	Sheet:	1 of 3	
0.44			T	T T					00/01/2020			
SAN	MPLES & T		-					STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description			
0.40 0.60 0.80 0.80 1.20 1.40 1.60	.60 B2 .80 .80 PID <0.1ppm .20 J4 .40 B5 .60 ES6				× × × × × × × × × × × × × × × × × × ×	(1.00) (1.50) (1.50) 2.60	to coarse and includes ash).  MADE GROUND (Brown grey black sandy gravel and cobbles with rebar noted (20mm) with fragments of metal and wood. Sand is fine to coarse. Gravel is fine to coarse of clinker, ash, coal, concrete, red brick and slag. Slag content is 0-25%. Slag is vesicular grey).  Soft (friable) grey brown mottled clayey SILT with clay bands and yellow sand lenses. Sand is fine to coarse.					
•		PLAN 3.00 Face A			<u> </u>		NDWATER dwater seepage	e at 2.00m BGL (s	light inflow).			
Face D		Orientation  180°  Face C		T QC CC CC		STABI Pit side		ghout excavation.				
	ADDITI	IONAL INFORI	MATIO	N			RAL REMARI					
Sketch Dia	gram:	No S	ketch Ta	aken		foundat	gineer notes pit tion uncovered I to foundation.	moved west by 1 with abandoned e	m due to old cor electric cables ru	ncrete (30 unning N-	mm rebar) S, adjacent and	
Photogra	phs:	Yes		See add shee								
	ensions in Scale 1:50			For expl abbrev	lanation iations s	of symbo ee Key S	ols and heets	Checked by:	Logged D. Portsr		Contract No. 4251	

### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RC

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP174 |
E:454464.960 N:520888.025

> Figure PRAIRIE\_AUK\_TP174.1 PRAIRIE\_AUK\_TP174



Figure PRAIRIE\_AUK\_TP174.2 PRAIRIE\_AUK\_TP174



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP174 South Tees Development Corporation E:454464.960 N:520888.025 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 Ground Level (m): 11.852 3 of 3



### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710



#### TRIAL PIT RECORD

PRELIM3

**Exploratory Hole No.** Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP175 South Tees Development Corporation E:454511.473 N:520862.590 Method (Equipment): Ground Level (m): 12 085 Start Date: Machine Excavated (360 Tracked Excavator) 06/04/2020 1 of 3 **SAMPLES & TESTS** STRATA Nater Reduced Depth Depth Description MADE GROUND (Brown clayey sand with many rootlets. Sand is fine to coarse and includes ash). MADE GROUND (Brown sandy gravel with medium cobble content. Sand is fine to coarse. Gravel is fine to coarse subangular and 0.40 J1 (0.60)0.60 B2 includes slag, brick and concrete. Cobbles are subangular and include brick and concrete. Slag content is 25-50%. Slag is vesicular. **N** 0.80 FS3 0.80 PID 101.1ppm Strong Hydrocarbon odour).
at c.0.60m BGL ... loose broken piece of 6" pipe containing black sandy gel like liquid - possibly partially solidified tar/oil. 1.40 Firm brown sandy CLAY with silt lenses. Sand is fine to medium. HSV 49 (20)kPa 1.50 1.60 Engineer notes grades to silt with clay interbeds. Hydrocarbon odour. B5 1.80 1.80 ES6 PID 5.3ppm 2.50 HSV\* 2.60 2.80 B8 3.50 3.60 HSV\* Complete at 4.50m BGL. **PLAN GROUNDWATER** Perched water at 0.90m BGL - slight inflow. 2.50 Face A Face D Face Orientation .50 180° **STABILITY** Pit sides stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: Yes sheets. Contract No. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: All dimensions in metres D. Portsmouth 4251 Scale 1:50

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

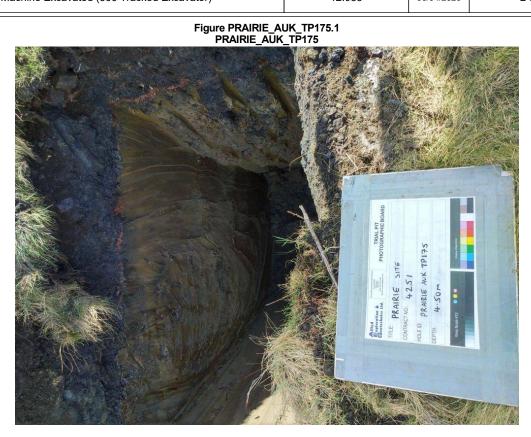
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP175 South Tees Development Corporation E:454511.473 N:520862.590

Start Date: 06/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 12.085 2 of 3









#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP175 South Tees Development Corporation E:454511.473 N:520862.590 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 06/04/2020 Ground Level (m): 12.085 3 of 3



### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2R0

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:PRFI IM3

Description  South Tees Development Corporation  South Tees Development Tees Development Tees Tees State State In the Cocase Grave Is fine to coarse subanquiar to substance aliang Stag content is 79-10%, Stag is substanced and includes slag. Stag content is 79-10%, Stag is 11,177  South Tees Development Tees Development Tees Tees Tees Tees Tees Tees Tees Tee						•••		. KEGOK			Exploratory Hole No.		
South Tee Development Corporation  ### Hand (Explanation)  SAMPLES & TESTS  Depth Tiple Test   1	Project:		F	Prairie	Site Gre	ound Inv	estigatio	n Works					
Heritodi (Equipment) Machine Excavaled (360 Tracked Excavalor)  SAMPLES & TESTS  Dojuh Type Test Near Test	Client:	South Tee	es Development	Corpo	ration		Location	:		P	RAIRIE_AUK_TP1		
SAMPLES & TESTS  Description  Type Tool No. Result  Description  MADE GROUND (Grey gravel. Grave) is fine to coarse subangular to subrounded and includes sig. Slag content is 75-100%. Slag is vesicular.  MADE GROUND (Grey gravel. Grave) is fine to coarse subangular to subrounded and includes sig. Slag content is 75-100%. Slag is vesicular.  MADE GROUND (Grey gravel. Grave) is fine to coarse subangular to subrounded and includes sig. Slag content is 75-100%. Slag is vesicular.  MADE GROUND (Red. brown and black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse of clinker, or vesicular gray).  Include the subrounded and includes sig. Slag content is 9-25%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 9-25%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 9-25%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 9-25%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 9-25%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray).  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray.  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray.  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray.  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray.  Include the subrounded and includes sig. Slag content is 75-100%. Slag is vesicular gray.  Include the subrounded and includes sig. Slag	Method (Equipn		Everysted (26)	) Tro	lead Eve	avatar)		Ground Leve	el (m):	947 Start Date:	Sheet:		
Description    Topic   Test   No.   Reduced   Logard   Description				Jirac	Kea Exc	avator)				07/04/2020	1 01 3		
August   A	SAN	MPLES &	TESTS	_					STRATA				
1.127 — 2.30 subrounded and includes slag. Slag content is 75-100%. Slag is vesicular).  MADE GROUND (Red, brown and black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse of clinker, ash, coal, concrete, red brick and slag. Slag content is 0.25%. Slag is vesicular grey brown motified slity CLAY/clayey SiLT with traces of organic debris.  PLAN  10.07  PLAN  10.07  PLAN  10.17  PLAN  10.17  Complete at 2.00m BGL.  GROUNDWATER  No groundwater inflow observed.  Face C  ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  Research See additional  GENERAL REMARKS	Depth	Type No		Wate		Legend				Description			
ADDITIONAL INFORMATION  Sketch Diagram:  No groundwater inflow observed.  STABILITY Pit sides stable throughout excavation.  GENERAL REMARKS  GENERAL REMARKS	.50 .90 .90 .50	J1 B2  ES3 PID 1.1ppm  HSV J4 54 (36)kPa  11.87  11.87  11.17				1.00	subrounded and includes slag. Slag content is 75-100%. Slag is vesicular).  MADE GROUND (Red, brown and black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to coarse of clinker, ash, coal, concrete, red brick and slag. Slag content is 0-25%. Slag is vesicular grey).  (Engineer notes 150mm cast iron pipe broken and loose in pit).  Soft to firm grey brown mottled silty CLAY/clayey SILT with traces of organic debris.						
Orientation 180°  Face C  STABILITY Pit sides stable throughout excavation.  GENERAL REMARKS  Sketch Diagram:  No Sketch Taken  See additional			2.50			<u> </u>			observed.				
Sketch Diagram: No Sketch Taken  Photographs: Ves See additional	Face D		Orientation 		7 2C 60 D	0.80			out excavation.				
Sketch Diagram: No Sketch Taken  Photographs: Yes See additional		\\ \D\\\T	TONAL INFORM	ΙΔΤΙΩ	N		CENIC	DAI DEMADIO					
	Sketch Dia						JENE	NAL NEWARKS	,				
	Photogra	phs:	Yes										

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP176 South Tees Development Corporation

E:454471.902 N:520790.947 Start Date: 07/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 12.168 2 of 3

Figure PRAIRIE\_AUK\_TP176.1 PRAIRIE\_AUK\_TP176



Figure PRAIRIE\_AUK\_TP176.2 PRAIRIE\_AUK\_TP176





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP176 South Tees Development Corporation E:454471.902 N:520790.947 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 07/04/2020 3 of 3





#### TRIAL PIT RECORD

Status:-DDEI IM2

										PRELIIVIS		
roject:			Prairie	Site Gr	ound Inv	estigatio/	n Works			Exploratory Hole No.		
Client:	South Tee	s Development	Corpo	ration		Location	:		Р	RAIRI	E AUK TP1	
lethod (Equipm							E:454522 Ground L	2.291 N:520695.2		Sheet:		
		Excavated (36	0 Trac	ked Exc	cavator)		0.00	12.982	07/04/2020	J.10011	1 of 3	
SAM	/IPLES &	TESTS					Ī	STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description			
50 60 60 70 90 00 40 80 90 90	Type No Reduced Legend    12.88		(0.40) 0.80 (0.40) 1.20 ((1.10)	to coarse and includes ash).  MADE GROUND (Grey gravel. Gravel is coarse and includes slag. Slag content is 75-100%. Slag is vesicular (used as ballast)).  MADE GROUND (Red brown black sandy gravel. Sand is fine to coarse. Gravel is fine to medium and includes clinker, ash, coal, concrete and slag. Slag content is 0-25%).  MADE GROUND (Soft to firm brown grey mottled dark grey slightly sandy clay. Sand is fine to medium).  MADE GROUND (Grey gravel with cobbles and boulders. Gravel is								
Face D		PLAN 2.40 Face A  Orientation 180° Face C			1.20 ————————————————————————————————————	Satura	LITY	40m BGL (heavy i				
Sketch Diag		IONAL INFORI	MATIO			GENE	RAL REMARI	KS				
Photograp	ohs:	Yes		See add								
	nsions in Scale 1:50			For exp abbrev	lanation	of symbo	ols and Sheets	Checked by:	Logged D. Portsr	d by: mouth	Contract No. 4251	

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP177 South Tees Development Corporation

Start Date: 07/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3







#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP177 South Tees Development Corporation Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 07/04/2020 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

Status:-

(S	TRIAL FIT RECORD									PRELIM3		
Project:			Prairie	Site Gre	ound Inv	vestigatio	n Works			Exploratory Hole No.		
Client:	South Tee	s Development	Corpo	ration		Location	:	RAIRIE_AUK_TP1				
Method (Equipm							E:454541.89 Ground Level (	1 N:520667.7		Sheet:		
wethou (Equiph		Excavated (36	0 Trac	ked Exc	avator)		13	3.162	06/04/2020	1 of 3		
SAN	//PLES &	TESTS						STRATA	•			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description				
				13.06 12.86		0.10 0.30	∖to coarse and ir	ıcludes ash).		many rootlets. Sand is fine		
0.40	J1					\$	MADE GROUN	D (Grey grave	el. Gravel is co	arse and includes slag Slag is vesicular).		
0.60	B2				$\bowtie$	<b>{</b>				gravel. Sand is fine to		
0.80 0.80	ES3 PID	<0.1ppm				(1.20)	coarse. Gravel i	s fine to medi	um and includ	es clinker, ash, coal and		
1.40	J4		<b>N</b>	11.66	$\bowtie$	1.50				and Ol AV Candia fina		
1.60	B5				<u> </u>	ļ.	Firm brown grey to medium.	/ mottled dark	grey slightly s	andy CLAY. Sand is fine		
1.80	HSV	53 (26)kPa				£						
						F						
			1		<u> </u>	(1.70)						
			1			‡						
2 00	LIO.	EQ (QC)I:D-			<u> </u>	‡						
2.80	HSV	52 (26)kPa	1			1						
				9.96	<del></del>	3.20		arown cliabtly	sandy slightly	gravelly CLAY. Sand is		
						Į.	fine to coarse.	Gravel is fine t	o coarse suba	ingular and includes		
3.50	HSV*				- <u> </u>	<del>[</del>	sandstone and			•		
					<u> </u>	(1.30)						
					<u> </u>	-						
					<u></u>	‡						
				8.66	<u> </u>	4.50		Om PCI				
						-	Complete at 4.5	UIII BGL.				
						-						
						-						
						-						
						-						
		PLAN					<u> </u> JNDWATER					
•		3.00			•	Perche	ed water at 1.50m E	BGL (slight inflo	ow).			
,		Face A			<b>↑</b>							
				_								
Face D		Orientation 180°		race	0.80							
Fac				α		STABI						
						Pit side	es stable throughou	ιτ excavation.				
		Face C										
		1 aue U			<b>」</b> ◆							
	ADDIT	IONAL INFORM	MATIO	N		GENE	RAL REMARKS					
Sketch Diag	gram:	No S	ketch T	aken								
						╝						
Photograp	ohs:	Yes		See add shee								
				31100	ω.							
All dimo	nsions in	metres		For evol	lanation	of symbo	ols and	Checked by:	Logged	I by: Contract No.		
	Scale 1:50			abbrevi	iations s	see Key S		s wy.	D. Portsr	mouth <b>4251</b>		

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

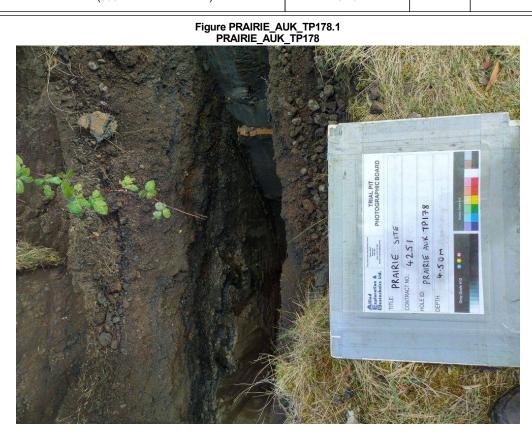
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP178 South Tees Development Corporation E:454541.891 N:520667.710

Start Date: 06/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.162 2 of 3



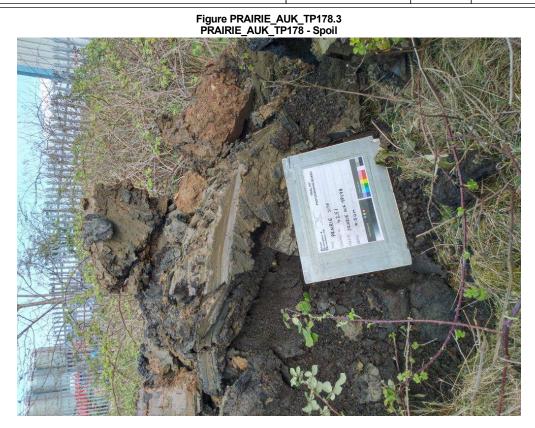


Contract No.: 4251

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP178 South Tees Development Corporation E:454541.891 N:520667.710 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 06/04/2020 Ground Level (m): 13.162 3 of 3



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### TRIAL PIT RECORD

Status:-

(F)				PRELIM3								
Project:			Prairie	Site Gr	ound Inv	estigatio/	n Works		Exploratory Hole No.			
Client:	South Tee	s Developmen	t Corpo	ration		Location	:	PI	RAIRIE_AUK_TP17			
Method (Equipr							E:454418.321 N:521016.092 Ground Level (m):   Star	rt Date:	Sheet:			
		Excavated (36	30 Trac	ked Exc	avator)			9/04/2020	1 of 3			
SAI	MPLES &	TESTS					STRATA					
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Desc	cription				
0.20 0.40 1.00 1.40 1.40 1.70 1.80 2.00 2.00 2.00	B3 ES4 PID J5 B6 PID ES7 HSV*	B3  B3  B3  B3  B3  B3  B3  B3  B5  B6  B6  BPID  B7  B8  B8  B8  B8  B8  B8  B8  B8  B8				(0.50) 0.60 (0.70) 1.30 1.50	to coarse and includes ash).  MADE GROUND (Brown sandy gincludes ash. Gravel is fine to coabrick, concrete, ash, clinker and sind MADE GROUND (Grey cobbles a subangular and include slag. Bouslag. Slag is vesicular).  MADE GROUND (Black sandy grais in the tocoarse. Gravel is fine to coarse. Gravel is fine to shydrocarbon/creosote odour and sond for the firm brown slightly organic	to coarse and includes ash).  MADE GROUND (Brown sandy gravel. Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and includes red brick, concrete, ash, clinker and slag. Slag content is 0-25%).  MADE GROUND (Grey cobbles and boulders. Cobbles are subangular and include slag. Boulders are subangular and include slag. Slag is vesicular).  MADE GROUND (Black sandy gravel with fragments of metal. Sand is fine to coarse. Gravel is fine to coarse subangular and include red brick, clinker, ash, concrete and slag. Slag content is 0-25%. Strong hydrocarbon/creosote odour and sheen noted).  Soft to firm brown slightly organic grey mottled black thinly and thickly interbedded SILT and CLAY with occasional sand lenses. Slight hydrocarbon/creosote odour.				
		PLAN 4.00 Face A			<u> </u>		  INDWATER  ted strata at 1.20m BGL (heavy inflow)	ı.				
Face D		Orientation 270°  Face C		Tace D	2.00	STAB Pit side	LITY es stable throughout excavation.					
		-										
	ADDIT	IONAL INFOR	MATIO	N		GENE	RAL REMARKS					
Sketch Dia	ıgram:	No S	Sketch Ta	aken								
Photogra	phs:	Yes		See add shee								
	ensions in Scale 1:50			For exp	lanation	of symbo see Key S	ols and Checked by:	Logged D. Portsn	by: Contract No.			

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP179 South Tees Development Corporation

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 2 of 3

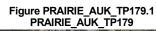




Figure PRAIRIE\_AUK\_TP179.2 PRAIRIE\_AUK\_TP179





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP179 South Tees Development Corporation E:454418.321 N:521016.092 Ground Level (m): S 10.823 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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Status:-

Œ			PRELIM3									
Project:			Prairie	Site Gr	ound Inv	vestigatio	ı Works	Exploratory Hole No.				
Client:	South Tee	s Development	Corno	ration		Location		 PRAIRIE_AUK_TP18				
		s Development	Согрс	ialion			E:454435.374 N:521058.356					
Method (Equipn	Machine	Excavated (36	0 Trac	ked Exc	cavator)		Ground Level (m): Start Date: 14/04/202	Sheet: 1 of 3				
SAN	MPLES &	TESTS			1	1	STRATA					
Depth	Type No Result											
0.10 0.20 0.30 0.30	J1 B2 12.17					0.40	MADE GROUND (Red brown black sandy gravel. Sand is fine to coarse. Gravel is fine to coarse and includes clinker, ash, concrete and slag. Slag content is 0-25%).  at c.0.40m BGL concrete slab.  Complete at 0.40m BGL.					
•		PLAN 3.00 Face A			<u> </u>		NDWATER undwater inflow observed.					
Face D		Orientation  180°  Face C		a CC C	- 1.20	STABI Pit side	LITY s stable throughout excavation.					
	ADDIT	IONAL INFORM	MATIO	N		GENE	RAL REMARKS					
Sketch Dia			ketch T									
Photograp	phs:	Yes		See add								
	ensions in Scale 1:50			For exp abbrev	lanation iations s	of symbosee Key S		ged by: Contract No. tsmouth 4251				

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP180 South Tees Development Corporation

E:454435.374 N:521058.356 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP180.1 PRAIRIE\_AUK\_TP180









#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP180 South Tees Development Corporation E:454435.374 N:521058.356 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 14/04/2020 3 of 3



### **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 Init 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-DDEI IM2

					•••		I KEGOKB			PRELIVIS
Project:			Prairie	Site Gr	ound In	vestigatio	n Works			Exploratory Hole No.
Client:	South Tee	es Development	t Corpo	ration		Location	:		Pl	RAIRIE_AUK_TP
Method (Equipn							E:454402.534 N:5		Start Date:	Sheet:
		e Excavated (36	30 Trac	ked Exc	cavator)		10.158	3	09/04/2020	1 of 3
SAM	MPLES &	TESTS				ì	SI	ΓRΑΤΑ		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		De	escription	
				10.06		0.10	\to coarse and includ	es ash).		nany rootlets. Sand is fine
0.30 0.50 0.60	J1 B2 ES3 PID	<0.1nnm		9.36		(0.70) - 0.80	MADE GROUND (Bi includes ash. Gravel brick, concrete, ash,	is fine to co	oarse subar	d is fine to coarse and agular and includes red content is 0-25%).
0.60 1.10	B4	<0.1ppm				(0.90)	MADE GROUND (G subangular and inclu slag. Slag content is	ıdes slaq. E	Boulders are	subangular and includes
1.80 2.00 2.00	J5 HSV B6	93 (42)kPa		8.46		(1.00)	Firm becoming stiff k lenses and interlamin	prown red g nated silt ar	rey CLAY w nd clay lamii	ith occasional sand nae.
2.50 2.50	ES7 PID	<0.1ppm		7.46		2.70	Complete at 2.70m E	BGL.		
						-				
		PLAN	1	1	I.		NDWATER		`	
		4.00 Face A			<b>†</b>	Satura	ted strata at 1.70m BGL	(slight inflov	N).	
Face D		Orientation 270° →		a C C	- 2.00	STABI Pit side	LITY es stable throughout exc	avation.		
		Face C			_]↓					
	ADDIT	ΓΙΟΝΑL INFORI	MATIO	N		GENE	RAL REMARKS			
Sketch Dia	gram:	No S	Sketch T	aken						
Photogra	phs:	Yes		See add shee						
	nsions in Scale 1:50			For exp abbrev	lanation	of symbo		cked by:	Logged D. Portsr	by: Contract No.

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP181 South Tees Development Corporation

E:454402.534 N:521065.535 Start Date: 09/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.158 2 of 3

Figure PRAIRIE\_AUK\_TP181.1 PRAIRIE\_AUK\_TP181







#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP181 South Tees Development Corporation E:454402.534 N:521065.535 Ground Level (m): S 10.158 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 3 of 3



### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RI

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:-

									PRELIIVIS		
Project: Prairie Site Ground Investigation Works										Exploratory Hole No.	
Client: South Tees Development Corporation							:	RAIRIE AUK TP1			
Method (Equipment):							E:454443 Ground Le	.617 N:520943. vel (m):		Sheet:	
Machine Excavated (360 Tracked Excavator)								11.335	09/04/2020	1 of 3	
SAI	MPLES & 7	TESTS					T	STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
				11.24		0.10	MADE GRO to coarse an	UND (Brown cla d includes ash)	ayey sand with i	many rootlets. Sand is fine	
0.30	J1					(0.70)	MADE GRO	JND (Brown gre	ey black sandy	gravel and cobbles with ). Sand is fine to coarse.	
.60	B2			10.54		0.80	Gravel is fine	e to coarse and	includes clinke	r, ash, coal, concrete, red	
.90 .90	ES3 PID	6.2ppm	<b>N</b>	10.24		1.10				g is vesicular grey). el. Sand is fine to coarse.	
30	J4	о.гррпп	' 🔻		$\frac{\times - \times}{\times}$	‡	Gravel is fine	e to coarse suba	angular and inc	ludes brick, concrete, ash, lag is partially vesicular	
50	HSV*				×	1	∖green grey. \$	Strong hydrocar	rbon/creosote o	dour and sheen noted).	
60	B5				×××	} 1(1.60)		rown grey thinly		erbedded SILT and CLAY	
00	ES6				* <del>*</del> *	1.00)	With Coodsion	iai saria icrisco	,.		
					× × ×	1					
50	HSV*			0.64	× × ×	2 2 20					
				8.64	- x —	2.70	Complete at	2.70m BGL.			
						_					
						-					
						-					
						-					
						-					
						-					
						-					
						-					
						-					
		PLAN	•	•			JNDWATER	One DOL (alimbi	-fl)		
_		4.00			<b>*</b>	Satura	ted strata at 1.1	0m BGL (slight in	ntiow).		
		Face A									
Qe		Orientation		race	1/2						
Face				α G	2.00	STABI					
						Pit side	es stable throug	hout excavation.			
		Face C									
		Face C			_  ↓						
	ADDITI	ONAL INFORM	MATIO	N			RAL REMARK terial too friable	ເS /sandy for HSV te	esting.		
Sketch Dia	gram:	No S	ketch T	aken							
				•							
Photogra	phs:	Yes		See add shee							
	ensions in i	metres		For exp	anation	of symbo	ols and	Checked by	: Logged	by: Contract No.	
Scale 1:50 abbreviations see							neets		D. Portsr	mouth <b>4251</b>	

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP182 South Tees Development Corporation

E:454443.617 N:520943.326 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 2 of 3





Figure PRAIRIE\_AUK\_TP182.2 PRAIRIE\_AUK\_TP182





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP182 South Tees Development Corporation E:454443.617 N:520943.326 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 09/04/2020 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### **TRIAL PIT RECORD**

PRELIM3

Project: Prairie Site Ground Investigation Works								I KELINIS			
									Exploratory Hole No.		
Client: South Tees Development Corporation							:		RAIRIE_AUK_TP1		
Method (Equipment):  Machine Excavated (360 Tracked Excavator)							E:454449.050 N:521042.255   Ground Level (m):   Start Date:   13.301   14/04/2020			Sheet: 1 of 3	
SAM	IPLES &	TESTS		<u> </u>				STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
	140	resuit	<u> </u>	13.20	   	0.10	MADE GRO	UND (Brown san	d with many ro	ootlets. Sand is fine to	
50	J1 B2			9.20		(0.90) 1.00 (0.60) 1.60 	coarse and includes ash).  MADE GROUND (Black brown sandy content and fragments of wood. Sand to coarse subangular and includes brick area subangular and includes brick. Cobble slag content is 50-75%. Cobble brick. Cobble slag content is 0-25%).  MADE GROUND (Concrete with 10-20 continue excavation).  MADE GROUND (Infilled void: red brofragments of metal. Cobbles are angul brick. Boulders are angular and included).			ne to course. Gravel is fine lag, ash and clinker. e angular of slag and red rebar. Pit extended to cobbles and boulders with nd include yellow and red llow and red brick).	
PLAN  5.00  Face A  Orientation  270°  B  B				No gro	INDWATER undwater inflow	observed.					
Ĭ,		Face C				STABI Pit side		hout excavation.			
	ADDIT	ΓΙΟΝΑL INFORM	ATIO	N		GENE	RAL REMARK	 (S			
Sketch Diagram: No Sketch Taken					(1) Pit		y 3.00m to expose	e a backfilled vo	oid beneath concrete		
Photograp	hs:	Yes		See add shee							
All dimensions in metres  Scale 1:50  All dimensions in metres  For explanation of appreciations see								Checked by:	Logged D. Portsr		

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP183 South Tees Development Corporation

E:454449.050 N:521042.255 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP183.1 PRAIRIE\_AUK\_TP183



Figure PRAIRIE\_AUK\_TP183.2 PRAIRIE\_AUK\_TP183



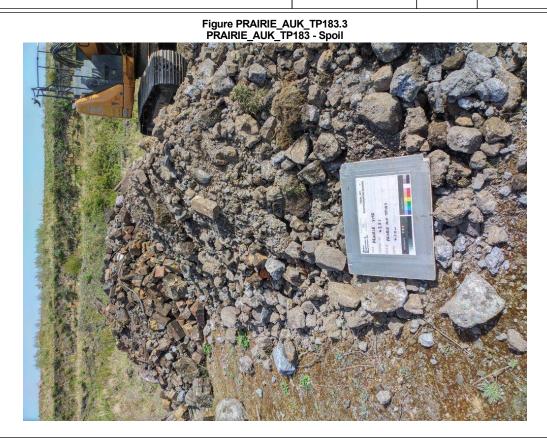


#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP183 South Tees Development Corporation E:454449.050 N:521042.255 Start Date: 14/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.301 3 of 3



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#### TRIAL PIT RECORD

Status:-

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

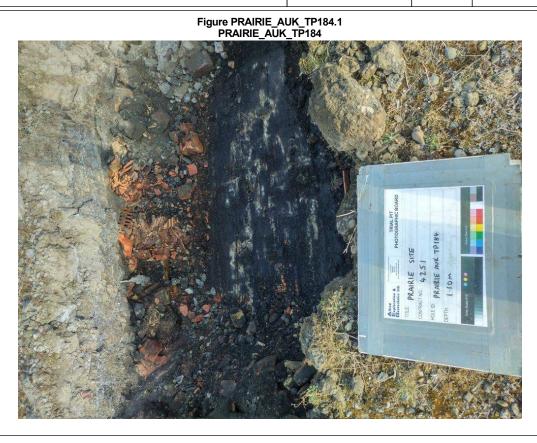
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP184 South Tees Development Corporation

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3







#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP184 South Tees Development Corporation E:454469.256 N:520988.871 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 16/04/2020 Ground Level (m): 13.090 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### **TRIAL PIT RECORD**

PRELIM3

	TICEINIO						
roject:	on Works Exploratory Hole No						
Client: South Tees Development Corporation							PRAIRIE AUK TI
Method (Equipment):							E:454481.915 N:520916.920  Ground Level (m): Start Date: Sheet:
Machine Excavated (360 Tracked Excavator)					avator)		12.725 08/04/2020 1 of 3
SAN	/IPLES &	TESTS					STRATA
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description
3.00 J1 3.50 B2 4.10 J3 4.20 B4 4.30 ES5 4.30 PID				10.73 10.33	× × × × ×		MADE GROUND (Red and yellow cobbles and boulders. Cobbles are angular and include red and yellow brick and coke. Boulders are angular and include red and yellow brick).  MADE GROUND (Concrete foundation. Engineer notes slab runs north-south adjacent to concrete vertical wall).  at c.2.00-2.40m BGL pit extended east to uncover edge of foundation (5m long). Foundation broken through to reveal underlying clay stratum.  MADE GROUND (Soft to firm brown slightly sandy slightly gravelly clay with low cobble content. Sand is fine to coarse. Gravel is fine to coarse subangular and includes red brick and coke. Cobbles are angular and include red brick).
PLAN  5.00 Face A  Orientation 270° Face C  ADDITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  Photographs:  Yes  See additional sheets.					3.50	STABI Pit side	UNDWATER bundwater inflow observed.  BILITY les unstable between 0.00-2.00m BGL. Stable between 2.00-4.50m BGL.
All dimensions in metres For explanation of						of symbo	ols and Checked by: Logged by: Contract No.

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP185 South Tees Development Corporation E:454481.915 N:520916.920

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 2 of 3



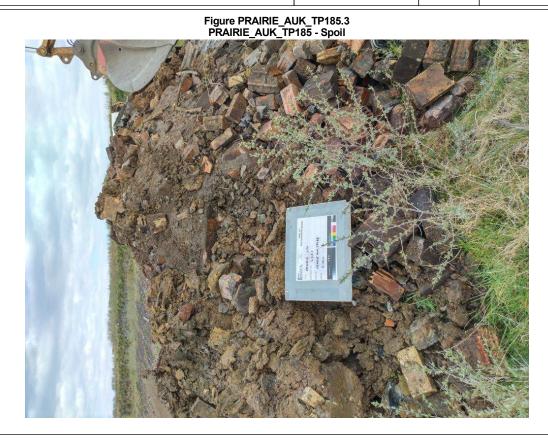




#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP185 South Tees Development Corporation E:454481.915 N:520916.920 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

Status:-

Prairie Site Ground Investigation Works  Exploratory Hole No.	l <del>s</del>	TRIAL FIT RECORD							
South Tees Development Corporation  E45447.645 N.520853.850  Backet 12.310  SAMPLES & TESTS  Despit Type Trial Planting Legent	Project:	lt sadan							
SAMPLES & TESTS   Security   State   Security   Secur	Client: South Tees Developme								
SAMPLES & TESTS  Dugth  Type Repeat  12.310  Description  Description  MADE GROUND (Brown slightly clayey sand with many rootlets.  Sand is predominantly ash).  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.)  MADE GROUND (Brown slightly clayey sand with many rootlets.  MADE GROUND (Grow cobles and boulders. Cobbine are angular and includes root brick and concrete. Path of the sand slightly content in th	·	one oorpe	, auton				59		
Depth No Test Read # Reduce   Depth   Description		360 Trac	ked Exc	avator)					
ADDITIONAL INFORMATION  Sketch Diagram:    1201   1	SAMPLES & TESTS					STRATA			
1201 — 3.0 Sand is predominantly seh).  MADE GROUND (Red brown black sandy gravel with fragments of wood and rebar (30mm). Sand is fine to coarse. Gravel is fine to coarse and includes clinker, correte, red brick and slag. Slag content is 0-25%. Slag is vesicular grey and green).  MADE GROUND (Grey cobbles and slag. Slag content is 0-25%. Slag is vesicular grey and green).  MADE GROUND (Grey cobbles and solutions; cobbles are angular and includes concrete with 10-20mm rebar).  1.80 at c.1.80m BGL concrete base/slab.  Terminated at 1.80m BGL concrete slab.  GROUNDWATER Saturated stends at 1.00m BGL (moderate inflow) - water exists in what is thought to be a bookfilled basement/cellar.  Straight of the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement/cellar.  Six and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a bookfilled basement cell and the same should be a	Depth Type Test No Result	Water		Legend	Depth (Thickness)	С	escription		
Saturated strata at 1.00m BGL (moderate inflow) - water exists in what is thought to be a backfilled basement/cellar.  STABILITY Pit sides unstable throughout excavation.  SHEADITIONAL INFORMATION  Sketch Diagram:  No Sketch Taken  See additional	0.40 B2 ES3 0.50 PID 5.1ppm		11.71		- 0.60	Sand is predominantly ash).  MADE GROUND (Red brown wood and rebar (30mm). Sand coarse and includes clinker, or content is 0-25%. Slag is vesion MADE GROUND (Grey cobble and includes red brick and cor include concrete with 10-20mm at c.1.80m BGL concrete bases	black sandy of the following services of the	gravel with fragments of arse. Gravel is fine to orick and slag. Slag d green). ers. Cobbles are angular ers are angular and	
	2.50 Face A  Orientatio 270°  Face C  ADDITIONAL INFO  Sketch Diagram: N	RMATIO	N aken See add	itional	STABI Pit side	ted strata at 1.00m BGL (moderate ackfilled basement/cellar.  LITY es unstable throughout excavation.		er exists in what is thought to	

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP186 South Tees Development Corporation E:454477.645 N:520853.859

Start Date: 07/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3





Figure PRAIRIE\_AUK\_TP186.2 PRAIRIE\_AUK\_TP186





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP186 South Tees Development Corporation E:454477.645 N:520853.859 Start Date: 07/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Status:-

(G	TRIAL FIT RECORD							PRELIM3			
Project:	Prairie Site Ground Investigation Works								Exploratory Hole No.		
Client:	South Tees Development Corporation							Р	RAIRIE_AUK_TP18		
Method (Equipn		- Bevelopment	Оогро				E:454559.634 N:520971.7		Sheet:		
metriou (Equipi		Excavated (360	0 Tracl	ced Exc	avator)		11.120	20/04/2020	1 of 3		
SAM	MPLES &	TESTS					STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	ı	Description			
0.50 0.50 0.60 0.70 1.00 1.10 1.30 1.50 1.80	J1 PID B2 ES3 J4 PID B5 J6 B7 ES8	1.3ppm 0.2ppm		10.77 10.32 9.92 9.32		(0.45) - (0.40) - (0.60) - (0.60) - 1.80	is 25-50%. Slag is vesicular g MADE GROUND (Brown blac and includes predominantly a to subrounded and includes a MADE GROUND (Soft to firm Firm laminated brown CLAY v lenses.	, concrete, as rey). k sandy grave sh. Gravel is t ish, clinker an grey mottled	h and coke. Slag content el. Sand is fine to coarse fine to medium subangular d coke). black silty clay).		
		PLAN					JNDWATER undwater inflow observed.				
Face D		3.50 Face A  Orientation 090° Face C		Tace b	↑ 2.20	STABI Pit side	ILITY es and base stable throughout exc	cavation.			
	ADDIT	IONAL INFORM	OITA	١		GENE	RAL REMARKS				
Sketch Dia	gram:	No Sł	ketch Ta	ken							
Photogra	phs:	Yes		See add shee							
	ensions in Scale 1:50		·	or expl	lanation iations s	of symbo ee Key S	ols and Checked by:	Logged D. Portsr	d by: Contract No. 4251		

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP187 South Tees Development Corporation E:454559.634 N:520971.721

Start Date: 20/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 11.120 2 of 3







#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP187 South Tees Development Corporation E:454559.634 N:520971.721 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 20/04/2020 Ground Level (m): 11.120 3 of 3

Figure PRAIRIE\_AUK\_TP187.3 PRAIRIE\_AUK\_TP187 - Spoil



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG

Tel: 0191 387 4700 Fax: 0191 387 4710

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### TRIAL PIT RECORD

PRELIM3

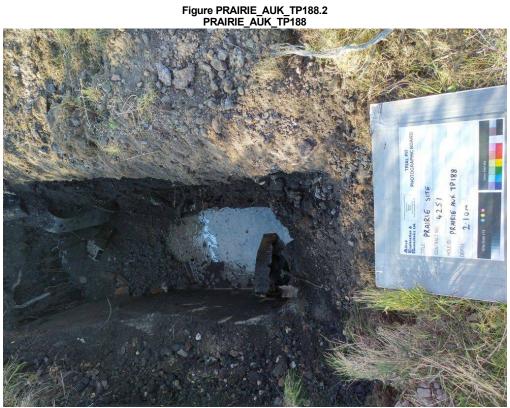
Project:			Prairie	Site Gr	ound Inv	estigatio	n Wo	rks			Expl	oratory Hole No.
Client:	South Te	ees Development	Corpo	ration		Location	:			Р	RAIRI	E_AUK_TP1
Method (Ed	quipment):	·					E	:454468 Ground Le		69 Start Date:	Sheet:	
	Machi	ne Excavated (36	30 Trac	ked Exc	cavator)				12.622	08/04/2020		1 of 3
	SAMPLES	& TESTS			1	ı	ı		STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			I	Description		
0.40 0.60 1.00 1.40 1.60	J1 B2 ES3 PID J4 B5	1.2ppm		10.52		2.10	to co at co thice MA frag Gra brice	oarse an .0.00-2.1 kness of DE GRO ments of vel is find k and sla	d includes ash).  0m BGL easte wall due to instab UND (Brown grey wood and metal	rn pit wall is c pility of pit edg black sandy (girders/RSJ) ncludes clinker s 0-25%. Slag	oncrete. es. gravel a . Sand is r, ash, co is vesic	nd cobbles with s fine to coarse. oal, concrete, red ular grey).
		DLAN				[ -	INIDIA	ATED				
[		PLAN 2.50 Face A			<b>1</b>		ted str	ata at 1.7	'0m BGL (heavy in ing up basement/c			ater in pit possibly
L	Face D	Orientation 		a C	1.20 —	STABI Pit side		table thro	ughout excavation			
L		Face C			_ ↓							
	ADD	ITIONAL INFORI	MATIO	N				REMARK				.,
Sketch	n Diagram:	No S	Sketch Ta	aken					ssible backfilled ba basement/cellar o		r in pit ex	ists possibly due to
Photo	ographs:	Yes		See add								
All d	dimensions i Scale 1:			For exp abbrev	lanation iations s	of symbo	ols an	d	Checked by:	Logged D. Portsr		Contract No. <b>4251</b>

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP188 South Tees Development Corporation E:454468.960 N:520911.169 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 08/04/2020 2 of 3





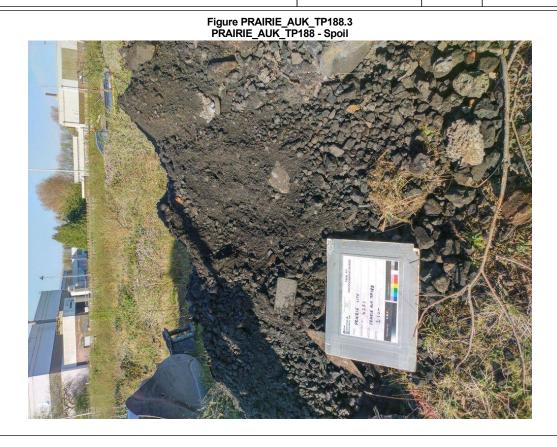


#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP188 South Tees Development Corporation E:454468.960 N:520911.169 Start Date: 08/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 12.622 3 of 3



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP189 South Tees Development Corporation E:454508.538 N:520739.484 Method (Equipment) Ground Level (m): 12 680 Start Date: Machine Excavated (360 Tracked Excavator) 1 of 2 07/04/2020 **SAMPLES & TESTS STRATA** Water Reduced Depth Depth Description MADE GROUND (Brown clayey sand with many rootlets. Sand is fine to coarse and includes ash). 0.30 .11 MADE GROUND (Red brown black sandy gravel with fragments of wood. Sand is fine to coarse. Gravel is fine to medium and includes 0.50 B2 (1.20) clinker, ash, coal, concrete, red brick and slag. Slag content is 0-25%. Slag is vesicular grey). **N** Soft to firm grey brown mottled silty CLAY/clayey SILT with traces of 1.40 .13 organic debris. 1.50 1.50 1.60 1.60 HSV 83 (42)kPa B4 ES4A PID <0.1ppm 2.50 HSV 103 (46)kPa 2.70 J5 Firm to stiff brown red slightly sandy slightly gravelly CLAY. Sand is fine to medium. Gravel is fine to coarse subangular and includes 2.90 3.00 3.00 B6 PID sandstone and mudstone. Engineer notes rare laminae observed) <0.1ppm Complete at 3.00m BGL. **PLAN GROUNDWATER** Perched water at 1.30m BGL (slight inflow). 2.50 Face A Face D Face Orientation 0.80 180° **STABILITY** σ Pit sides stable throughout excavation. Face C ADDITIONAL INFORMATION GENERAL REMARKS Sketch Diagram: No Sketch Taken See additional Photographs: Yes sheets. For explanation of symbols and abbreviations see Key Sheets Checked by: Logged by: Contract No. All dimensions in metres D. Portsmouth 4251 Scale 1:50

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP189 South Tees Development Corporation E:454508.538 N:520739.484

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 07/04/2020 2 of 2





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL DIT DECORD

Status:-

Œ	TRIAL PIT RECORD							PRELIM3			
Project:		I	Prairie	Site Gro	ound Inv	estigatio	n Works	Exploratory Hole No.			
Client:	South Tees	Development	Corno	ration		Location	:	P	PRAIRIE_AUK_TP1		
Method (Equipm			J01p0	. 30011			E:454378.486 N:521222.8 Ground Level (m):	06 Start Date:	Sheet:		
Motriod (Equipm	Machine I	Excavated (36	0 Trac	ked Exc	avator)		7.754	16/04/2020	1 of 3		
SAM	/IPLES & T	ESTS					STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description			
			<u>‡</u>	6.95			MADE GROUND (Black grav tile. Sand is fine to coarse. Gincludes red brick, concrete a vesicular grey green white).  MADE GROUND (Yellow san (Engineer notes possible pipe Terminated at 1.00m BGL - du	ravel is fine to and slag. Slag ad. Sand is fine be bedding).	coarse subangular and content is 0-25%. Slag is to coarse).		
Face D		PLAN 3.00 Face A  Orientation 316°		Hace	3.00	GROU	NDWATER strike at 0.80m BGL.				
	ADDITIO	Face C	MATIO		0		LITY s and base stable throughout exceeds RAL REMARKS	cavation.			
Sketch Diag			ketch Ta			(1) No	samples taken. ocated to PRAIRIE_AUK_TP190/	Α.			
Photograp	ohs:	Yes		See add							
	nsions in n Scale 1:50	netres		For expl abbrevi	anation ations s	of symbo	ols and Checked by: heets	Logged K. Russell	by: Contract No.		

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP190 South Tees Development Corporation E:454378.486 N:521222.806

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP190.1 PRAIRIE\_AUK\_TP190









#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP190 South Tees Development Corporation E:454378.486 N:521222.806 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 16/04/2020 3 of 3

Figure PRAIRIE\_AUK\_TP190.3 PRAIRIE\_AUK\_TP190 - Spoil



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RI

Tel: 0191 387 4700 Fax: 0191 387 4710

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#### TRIAL PIT RECORD

Status:PRFI IM3

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roject:			Prairie	Site Gr	ound In	vestigatio	n Works		Exploratory Hole No.		
lient:	: South Tees Development Corporation Location:								 PRAIRIE_AUK_TP19		
		- Bovolopinion					E:454379.638 N:521216.55	2 Start Date:	Sheet:		
Ciriou (Equipii	thod (Equipment): Machine Excavated (360 Tracked Excavator)						7.939	16/04/2020	1 of 3		
SAM	MPLES &	TESTS					STRATA				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	D	escription			
.50 .00 .10	J1 B2 ES3 PID	<0.1ppm	<u>‡</u>	6.74		(1.20)	MADE GROUND (Black clayey content and fragments of meta Gravel is fine to coarse subanc brick, concrete, ash and slag. (red brick and concrete. Slag or green white). between c.0.70-1.20m BGL housing cables.  Firm thinly laminated grey brow brown sand on the laminae.	I and pipe. So gular to subro Cobbles are so potent is 0-25 brick structur	and is fine to coarse. Sunded and includes red Subangular and include %. Slag is vesicular grey e in Face C and D		
.50 .50	J4 HSV	51 (20)kPa				- - - - - -(1.80)					
.50 .50	J6 HSV	53 (18)kPa		4.94		1(1.80)           3.00					
		PLAN 3.00 Face A					NDWATER at 1.20m BGL (engineer notes runr	ning out of cab	ele duct)		
Face D		Orientation 316° Face C		a co	1.60	STABI Pit side	LITY s and base stable throughout exca	vation.			
	ADDIT	IONAL INFORI	MATIO	N			RAL REMARKS	<u> </u>			
Sketch Dia	gram:	Sko	etch Tal	ken		(I) Kel	ocated from PRAIRIE_AUK_TP190	J.			
Photogra	phs:	Yes		See add							
	ensions in Scale 1:50			For exp	lanation	of symbo see Key S	ols and Checked by:	Logged K. Russell-	by: Contract NoClamp 4251		

Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RC

Tel: 0191 387 4700 Fax: 0191 387 4710

### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works
Exploratory Hole No.

Client: South Tees Development Corporation | Location: PRAIRIE\_AUK\_TP190A





Figure PRAIRIE\_AUK\_TP190A.2 PRAIRIE\_AUK\_TP190A



Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

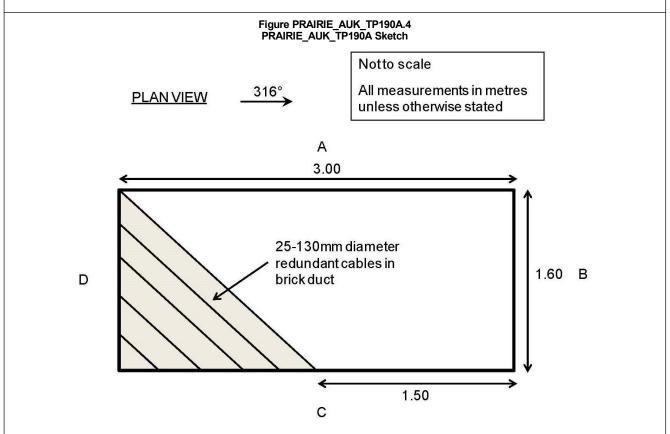
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP190A South Tees Development Corporation E:454379.638 N:521216.552

Start Date: 16/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Sheet: 3 of 3





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#### TRIAL PIT RECORD

PRELIM3

25							_		I ICELIVIS	
roject:	P	rairie	Site Gre	ound Inv	estigatio	n Works			Exploratory Hole No.	
lient: South T	ees Development (	Corpo	ration		Location				RAIRIE_AUK_TP1	
ethod (Equipment):	ing Evapuated (260	Troo	kod Eva	ovotor)		E:454367 Ground L	7.523 N:521122.4 evel (m): 8.876	14 Start Date: 28/04/2020	Sheet:	
Machine Excavated (360 Tracked Excavator)								26/04/2020	1013	
SAMPLES	& TESTS	_					STRATA			
Depth Type No	Depth Type Test by Reduced Legend Legend						I	Description		
			7.98 7.68 6.78			to coarse ar MADE GRC content. Sar clinker, ash, content is O slag. Cobble Slight hydro Soft becomi fine to medi Firm brown medium.	nd is predominantly UND (Red brown and is fine to coars, coke, concrete, v. 25%. Cobbles are a slag content is 5 carbon odour noting firm grey mottlum.	ly ash). black sandy ge. Gravel is firly vood, red brick e subangular a 0-75%. Slag is ed). ed black sligh	gravel with low cobble lee to coarse and includes and slag. Gravel slag and includes red brick and s vesicular grey green.  Itly sandy CLAY. Sand is and lenses. Sand is fine to	
Face D	PLAN  3.20 Face A  Orientation 000° Face C				No gro	DUNDWATER groundwater inflow observed.  BILITY ides and base stable throughout excavation.				
ADDITIONAL INFORMATION  Sketch Diagram: Sketch Taken  Photographs: Yes See additional					RAL REMARI samples taken					
All dimensions				anation	of symbo		Checked by:	Logged D. Portsr	by: Contract No.	

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP191 South Tees Development Corporation E:454367.523 N:521122.414

Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 8.876 2 of 3





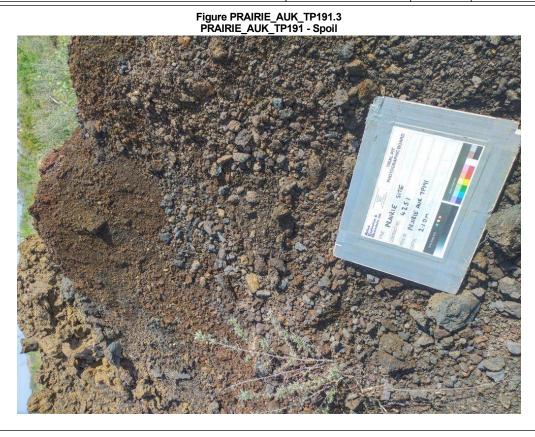
Figure PRAIRIE\_AUK\_TP191.2 PRAIRIE\_AUK\_TP191



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP191 South Tees Development Corporation E:454367.523 N:521122.414 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 28/04/2020 Ground Level (m): 8.876 3 of 3



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL DIT DECORD

Status:-

Œ					IK	IAL P	I RECORD		PRELIM3
Project:		F	Prairie	Site Gro	ound Inv	estigatio/	n Works		Exploratory Hole No.
Client:	South Tee	s Development	Corpo	ration		Location	:	PI	RAIRIE_AUK_TP19
Method (Equipm				Tation			E:454373.500 N:521098.322   Ground Level (m):   Sta	art Date:	Sheet:
метной (Ефирп		Excavated (36	) Trac	ked Exc	avator)			01/05/2020	1 of 3
SAN	APLES &	TESTS			i		STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Desc	cription	
				8.15 7.95 7.15		(1.00) - 1.10 - 1.30 - (0.80) - 2.10	MADE GROUND (Brown black sato coarse and predominantly ash) MADE GROUND (Red brown blacontent. Sand is fine to coarse. Gelinker, ash, coke, concrete, wood content is 0-25%. Cobbles are su slag. Cobble slag content is 50-78 Slight hydrocarbon odour noted). Soft becoming firm grey mottled befine to medium.  Firm brown grey CLAY.  Complete at 2.10m BGL.	). ck sandy g ravel is fin d, red brick bangular a 5%. Slag is	gravel with low cobble e to coarse and includes and slag. Gravel slag and includes red brick and s vesicular grey green.
		PLAN				GROL	NDWATER		
<u></u>		3.00			<b>→</b>		ted strata at 1.10m BGL (slight inflow)	l.	
Face D		Face A  Orientation  000°  Face C		T a C C C	1.20	STABI Pit side	LITY es and base stable throughout excava	tion.	
	ΔΠΠΙΤ	TONAL INFORM	ΙΔΤΙΩ	NI		GENE	RAL REMARKS		
Sketch Diaç			tch Tak			JENE	I VAL INLIVIANNO		
Photograp	ohs:	Yes		See add shee					
	nsions in Scale 1:50		-	For expl abbrevi	anation iations s	of symbo	ols and Checked by: heets	Logged D. Portsn	by: Contract No.

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP192 South Tees Development Corporation

E:454373.500 N:521098.32 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 01/05/2020 2 of 3





Figure PRAIRIE\_AUK\_TP192.2 PRAIRIE\_AUK\_TP192





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP192 South Tees Development Corporation E:454373.500 N:521098.322

Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 01/05/2020 3 of 3

Figure PRAIRIE\_AUK\_TP192.3 PRAIRIE\_AUK\_TP192 - Spoil



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### **TRIAL PIT RECORD**

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No.											I KELING
South Tees Development Corporation  E454417 220 N.521030 278  SAMPLES & TESTS  Development Corporation  SAMPLES & TESTS  Development Corporation  E454617 220 N.521030 278  STRATA  Description  Description  Description  Description  Description  Description  Description  Description  Description  Sand is fine to coarse subangular and includes sale, sendstone and concrete. Slag content is 25-50%. Slag is vestically grey)  10,000  E51  PLAN  3.50  Face A  Orientation  ODOP  Face C  ADDITIONAL INFORMATION  Sketch Dagram:  Sk	roject:		F	Prairie	Site Gr	ound Inv	estigatio	n Works			Exploratory Hole No.
SAMPLES & TESTS  Destri 1998   100	lient:	outh Tees	s Development	Corpo	ration		Location	:		P	RAIRIE AUK TP1
SAMPLES & TESTS  Depth Type Test Result	lethod (Equipme	ent):							Level (m):	278 Start Date:	Sheet:
Pack   Tast   Reduced   Legard   Description   Description   Description		Machine	Excavated (360	) Trac	ked Exc	cavator)			10.665	30/04/2020	1 of 3
BOUND (Brown grey very sandy gravel with many rootlets. Sand is fine to coarse. Gravel is fine to coarse subangular and some of the coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse subangular and includes sands. Gravel is fine to coarse sands and includes sands. Gravel is fine to coarse and includes sands. Grave	SAMI	PLES & 7	TESTS						STRATA		
ADDITIONAL INFORMATION  Sketch Diagram:	Depth			Water	Reduced Level	Legend				Description	
Saturated strata at 0.80m BGL (slight inflow).    Saturated strata at 0.80m BGL (slight inflow).	.80	ES1			10.07		(0.45) - 0.60 - 0.90	Sand is fin includes sl is vesicula MADE GR and includ slag, conci grey).  at c.0.40m eastern ed MADE GR coarse and subangula vesicular godour note	e to coarse. Grave ag, sandstone and r grey).  OUND (Black broves ash. Gravel is frete and clinker. S  BGL railway lin BGL 10mm grege of pit.  OUND (Black sand includes ash. Grar and includes clin r and includes slin rey and green. Strd).  green mottled black green mottled black.	wn sandy grave ine to coarse s lag content is 2 es 1.50m apar ey cable running dy gravel and c avel is fine to c ker, ash concerg g. Slag content ong creosote/h	rse subangular and g content is 25-50%. Slag el. Sand is fine to coarse ubangular and includes 15-50%. Slag is vesicular t - extended pit west. g 000 degrees along side cobbles. Sand is fine to oarse angular to ete and wood. Cobbles is 75-100%. Slag is
Photographs: Ves See additional	G Orientation One B Face C Section 1.50					STABI Pit side	ted strata at 0	lightly unstable thro		on.	
	Sketch Diagr							NAL NEWAR			
All dimensions in metres For explanation of symbols and Checked by: Logged by: Contract No.					shee	ts.		de and	Checked by	Loggod	hv Contract No.

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP193 South Tees Development Corporation

E:454417.220 N:521030.278 Start Date: 30/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.665 2 of 3

Figure PRAIRIE\_AUK\_TP193.1 PRAIRIE\_AUK\_TP193





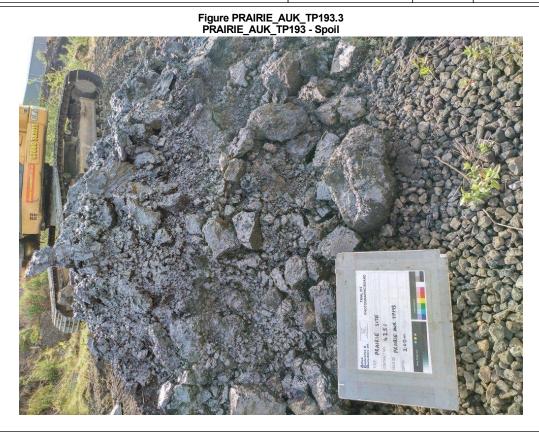




#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP193 South Tees Development Corporation E:454417.220 N:521030.278
| Ground Level (m): | S | 10.665 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 30/04/2020 3 of 3



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### TRIAL PIT RECORD

PRELIM3

Project:			Prairie	Site Gr	ound Inv	estigatio	n Wor	ks			Explo	ratory Hole No.		
Client:	outh Te	es Developmen	t Corn	oration		Location	1:			PF	AIRIF	_AUK_TP1	193	
		es Developmen	СОГР	Jialion				:454417 Ground Le	.220 N:521030.27	78 Start Date:	Sheet:			
Method (Equipme		e Excavated (3	60 Trad	cked Exc	avator)			Ground Le	10.665	30/04/2020	Sneet:	1 of 5		
SAMI	PLES &	TESTS							STRATA	· ·				
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	)		[	Description				
No Result				10.47			MADE GROUND (Brown gr is fine to coarse. Gravel is fi slag, sandstone and concre vesicular grey).  MADE GROUND (Brown blamedium boulder content, sterailway line, and fragments coarse and includes ash. Gr includes red brick, ash, clink 25-50%. Slag is vesicular gr			rey sandy gravel with many rootlets. Sand fine to coarse subangular and includes ete. Slag content is 25-50%. Slag is plack sandy gravel and cobbles with teel girders, metal sheets, sections of of metal, wood and plastic. Sand is fine to Gravel is fine to coarse subangular and laker, concrete and slag. Slag content is grey. Cobbles are angular and include of a 10-30mm rebar. Boulders are angular				
		PLAN					JNDW	ATER	4.60m BGL.					
	_	23.00 Face A			1	No gro	oundwa	ter inilow	observed.					
Face D		Orientation 090° Face C		T acce	3.50	STAB Pit side		base un	stable throughout e	xcavation.				
Sketch Diagr		TIONAL INFOR	MATIC			(1) Tria	al pit ex ı followi	REMARK cavated ng PRAI es taken	across slope expo	sing various s	ubsurface s	structures - refer	to	
Photograph	ns:	Yes		See add shee										
All dimen	sions ir		•	For exp	lanation iations s	of symbo	ols and Sheets	I	Checked by:	Logged D. Portsi	d by: mouth	Contract No. 4251	ī	

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP193A South Tees Development Corporation

E:454417.220 N:521030.278 Start Date: 30/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.665 2 of 5

Figure PRAIRIE\_AUK\_TP193A.1 PRAIRIE\_AUK\_TP193A







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP193A South Tees Development Corporation

E:454417.220 N:521030.278 Start Date: 30/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.665 3 of 5

Figure PRAIRIE\_AUK\_TP193A.3 PRAIRIE\_AUK\_TP193A







#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP193A South Tees Development Corporation

E:454417.220 N:521030.278 Start Date: 30/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.665 4 of 5

Figure PRAIRIE\_AUK\_TP193A.5 PRAIRIE\_AUK\_TP193A - Spoil





Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

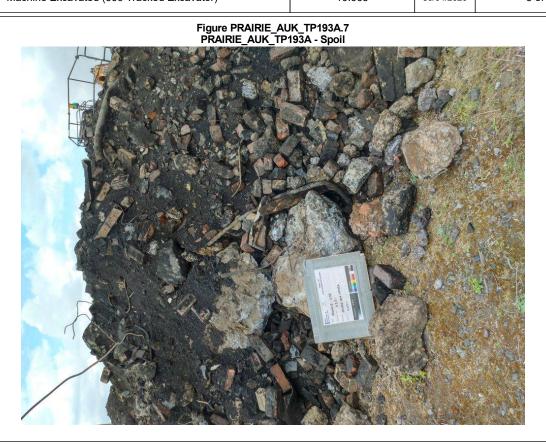
Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01772 735 300 Fax: 01772 735 999

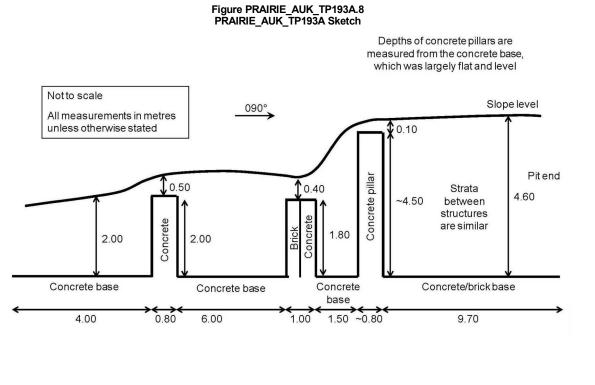
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP193A South Tees Development Corporation E:454417.220 N:521030.278 Ground Level (m): 10.665 Start Date: 30/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 5 of 5





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

PRELIM3

Project:		F	Prairie	Site Gro	ound Inv	estigatio	n Works			Explor	ratory Hole No.
Client: South Tees Development Corporation E:454444.765 N:520997.809									AIRIE	_AUK_TP194	
Method (Equipm		e Excavated (360	) Tracl	ked Exc	avator)		Ground L		Start Date: 29/04/2020	Sheet:	1 of 4
SAN	 ИPLES 8	TESTS						STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
1.40	ES1			11.81 11.61 11.01		(1.40) 1.40 1.60 	content. Sai Gravel is fin brick and co angular and content is 0- at c.0.50m E degrees.  MADE GRC Sand is fine includes sla 75-100%. S odour). at c.1.50m E degrees.  Firm brown (Engineer n	DUND (Brown greed is fine to coarse to coarse subaroncrete. Gravel slaincludes red brickers. Slag is vesigned. Slag is vesicular greed. Slag is vesicular gr	e and included any property of the content is a content is a concrete and includer grey). The content is a content in a co	s predomir ludes slag (5-50%. Co d slag. Co on pipe rur el with low rse suban ude slag. drocarbon/ clay pipe	cobble content. gular and Slag content is icreosote running 000
	•	PLAN					INDWATER	50m BGL (moderat	to inflow() cour	and by brok	on nine running
<b>—</b>		3.80 Face A			• 1↑	north-s		MINDGE (IIIOGEISI	io ii iii ow) - Gaus	ocu by biok	on pipe running
Face D		Orientation 090° Face C		Tace D	3.00	STABI Pit side		oderately stable thr	oughout excav	ation.	
	ADDI	TIONAL INFORM	IOITAI	N_		11 -	RAL REMARI				
Sketch Dia	gram:	Ske	tch Tak	en				l across slope expo IRIE_AUK_TP194E		ıbsurface s	tructures - refer to
Photograp	ohs:	Yes		See add shee							
	nsions ir					of symbo		Checked by:	Logged D. Portsr		Contract No. 4251

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194A South Tees Development Corporation

E:454444.765 N:520997.809 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4

Figure PRAIRIE\_AUK\_TP194A.1 PRAIRIE\_AUK\_TP194A







#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194A South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4

Figure PRAIRIE\_AUK\_TP194A.3
PRAIRIE\_AUK\_TP194 (From Section E looking towards Section A)



Figure PRAIRIE\_AUK\_TP194A.4 PRAIRIE\_AUK\_TP194 - Spoil



Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710



# TRIAL PIT RECORD PRELIM3

Client:
South Tees Development Corporation

Client:
South Tees Development Corporation

Client:

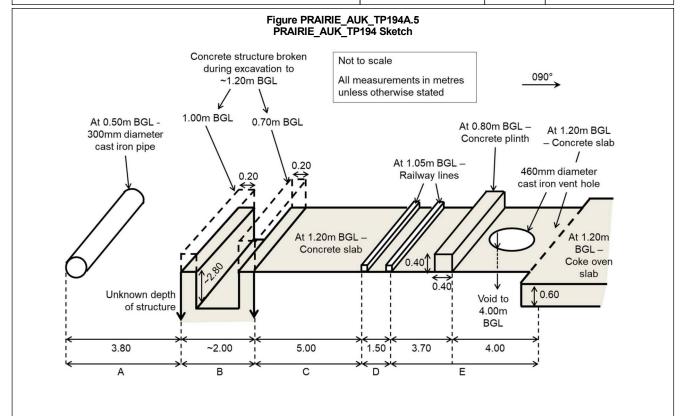
South Tees Development Corporation

E:454444.765 N:520997.809

Method (Equipment):
Machine Excavated (360 Tracked Excavator)

Ground Level (m):
13.208

Start Date:
29/04/2020
4 of 4



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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TRIAL PIT RECORD

PRELIM3

ject:		ŀ	Prairie	Site Gr	ound Inv	estigatio	n Wor	ks			Exploratory Hole No.
nt:	South Te	es Development	Corpo	ration		Location		:454444	.765 N:520997.		AIRIE_AUK_TP19
od (Equ	ipment): Machir	ne Excavated (36	0 Trac	ked Exc	avator)			Ground Le		Start Date: 29/04/2020	Sheet: 1 of 4
S	AMPLES 8	R TESTS							STRATA		
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Description	
			<b>*</b>			(2.80)	coai slag	rse. Grav content	el is fine to coa is 50-75%. Cob	rse subangular bles are angul	cobbles. Sand is fine to rand includes slag. Gravel ar and include slag. resicular grey and green).
				10.41		2.80	at c.	2.80m E ninated a	GL concrete at 2.80m BGL - c	slab (possible i lue to concrete	foundation) - pit extended.  obstruction.
		PLAN 2.00 Face A				GROU			30m BGL (heavy i	nflow).	
Face D		Orientation 090°		n ace	3.00	STABI Pit side	LITY es and	base mo	oderately stable th	roughout excav	ration.
		TIONAL INFORM				1 (1) Tria	al pit ex	REMARk xcavated ing PRAI		oosing various s	ubsurface structures - refer to
Photog	graphs:	Yes	etch Tak	See add	ts.	of symbo			Checked by	Logge	d by: Contract No.

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194B South Tees Development Corporation

E:454444.765 N:520997.809 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4

Figure PRAIRIE\_AUK\_TP194B.1 PRAIRIE\_AUK\_TP194B



Figure PRAIRIE\_AUK\_TP194B.2
PRAIRIE\_AUK\_TP194B (ILooking towards Section C)



#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194B South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4

Figure PRAIRIE\_AUK\_TP194B.3
PRAIRIE\_AUK\_TP194 (From Section E looking towards Section A)





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

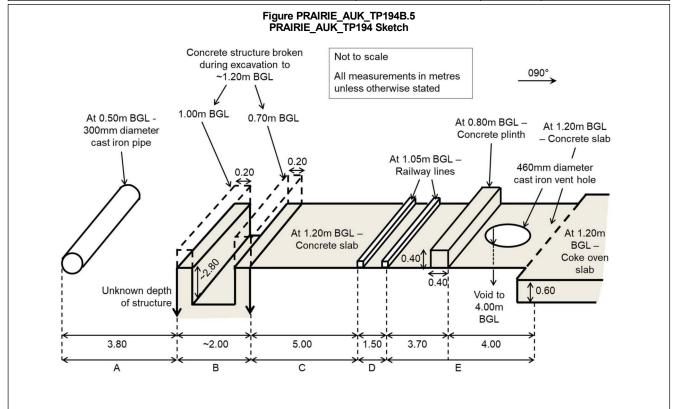
Tel: 0191 387 4700 Fax: 0191 387 4710



# TRIAL PIT RECORD Prairie Site Ground Investigation Works Status:PRELIM3 Exploratory Hole No.

South Tees Development Corporation

| Client: | South Tees Development Corporation | Continuous | Continuous



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Project:		Prairie	Site Gr	ound Inv	estigation	n Works			Explor	atory Hole	No.
Client:	h Toos David	ot C =	. rat!		Location	:		DE	VIDIE	VIIK .	TD101
Souti	h Tees Developmer	nt Corpo	oration			E:454444	.765 N:520997.80		AIRIE.	_AUK_	17 194
Method (Equipment): Ma	chine Excavated (3	60 Trac	ked Exc	avator)		Ground Le		Start Date: 29/04/2020	Sheet:	1 of 4	
SAMPLI	ES & TESTS					I	STRATA				
Depth T	Type Test No Result	Water	Reduced Level	Legend	Depth (Thickness)		D	escription			
			12.01		(1.20)	subangular a Cobbles are	UND (Grey gravel and includes slag a subangular and ir ow brick. Slag conf	and red brick nclude slag, c	. Slag con oncrete, n	tent is 25-5 netal, wood	50%. d and
						at c.1.20m E	GL concrete sla at 1.20m BGL - due	ab (possible f	oundation obstruction	) - pit exter	nded.
<b>—</b>	PLAN 5.00 Face A			<b>,</b>		INDWATER undwater inflov	observed.				
Face D	Orientation 090° → Face C		n ac e u	3.00	STABI Pit side		derately stable thro	ughout excava	ation.		
Α	DDITIONAL INCO	0N/ATIO	ıNI				/e				
A Sketch Diagram	DDITIONAL INFOR	ketch Tal			│ (1) Tria	RAL REMARI al pit excavated following PRAI	across slope expos RIE_AUK_TP194E	sing various su	ıbsurface s	structures - I	refer to
Photographs:	Yes		See add shee								
	ons in metres e 1:50		For exp	lanation iations s	of symbo	ols and heets	Checked by:	Logged D. Portsr	by: nouth	Contract 4251	No.

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194C South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4

Figure PRAIRIE\_AUK\_TP194C.1 PRAIRIE\_AUK\_TP194C



Figure PRAIRIE\_AUK\_TP194C.2
PRAIRIE\_AUK\_TP194 (Section B looking towards Section C)



#### TRIAL PIT RECORD

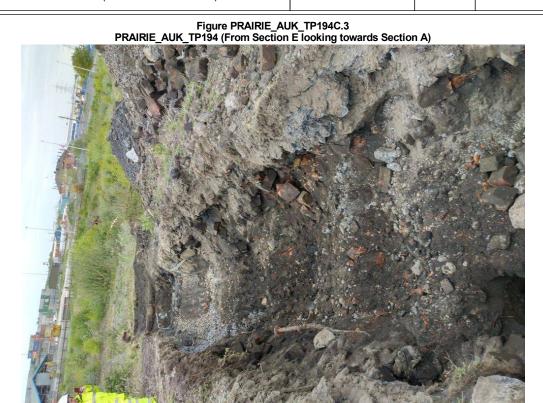
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194C South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4





Head Office: Regional Offic Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

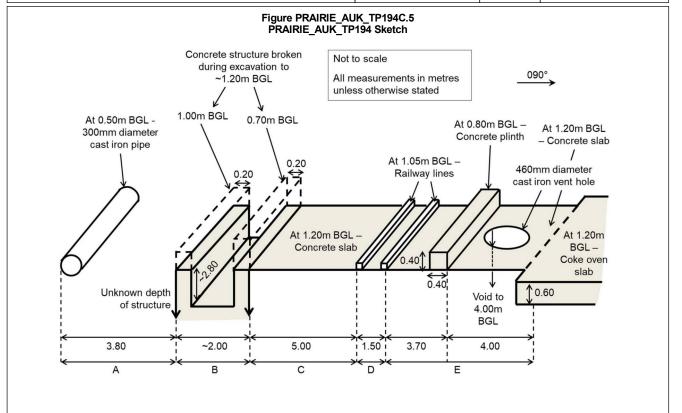
Tel: 0191 387 4700 Fax: 0191 387 4710



## TRIAL PIT RECORD PRELIM3

Client:
South Tees Development Corporation

| Coation: | Coation:



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

<b>:</b> 7												
oject:		Prairie	Site Gr	ound Inv	estigation/	n Works			Exploratory Hole N	<b>lo.</b>		
nt: South	n Tees Developmer	nt Corpo	ration		Location	:	AIRIE_AUK_TP19					
nod (Equipment):							444.765 N:520997.	809 Start Date:	Sheet:			
	chine Excavated (3	60 Trac	ked Ex	cavator)		Grou	13.208	29/04/2020	1 of 4			
SAMPLE	ES & TESTS			1			STRATA					
Depth T	ype Test No Result	Water	Reduced Level	Legend	Depth (Thickness)			Description				
					(1.70)	and woo red brick and inclu	d. Gravel is fine to o . Gravel slag conte	coarse subangunt is 25-50%. Co and red and yello	with fragments of metallar and includes slag abbles are subangular ow brick. Cobble slag	and		
			11.51		1.70	at c.1.70 Terminat	m BGL concrete ed at 1.70m BGL - (	slab (possible f due to concrete	oundation) - pit extend obstruction.	ed.		
	PLAN					NDWATE undwater ir	R Iflow observed.					
•	1.50 Face A											
Face D	Orientation 		- 20 0	- 3.00 —	STABILITY Pit sides and base moderately stable throughout excavation.							
	Face C											
A	DDITIONAL INFOR	RMATIO	N		GENE	RAL REM	ARKS					
Sketch Diagram:		ketch Tak			┤ (1) Tria	al pit excava	ated across slope exp RAIRIE_AUK_TP19	oosing various su 4E.	ıbsurface structures - re	fer to		
Photographs:	Yes		See add									
	ns in metres e 1:50		For exp	lanation	of symbo see Key S	ols and heets	Checked by	: Logged D. Portsr		O.		

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194D South Tees Development Corporation

E:454444.765 N:520997.809 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.208 2 of 4

Figure PRAIRIE\_AUK\_TP194D.1 PRAIRIE\_AUK\_TP194D



Figure PRAIRIE\_AUK\_TP194D.2 PRAIRIE\_AUK\_TP194D



### TRIAL PIT RECORD

PRELIM3

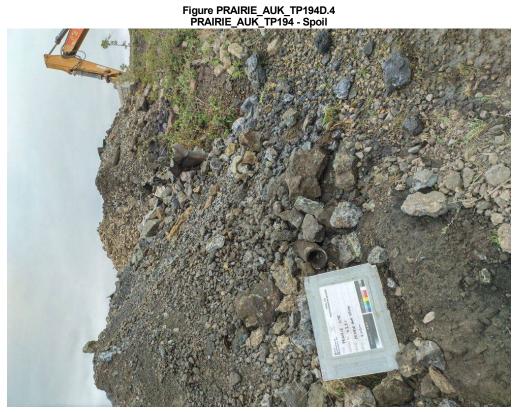
Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location:

PRAIRIE\_AUK\_TP194D South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.208 3 of 4





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710



### TRIAL PIT RECORD PRELIM3

Project: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

South Tees Development Corporation

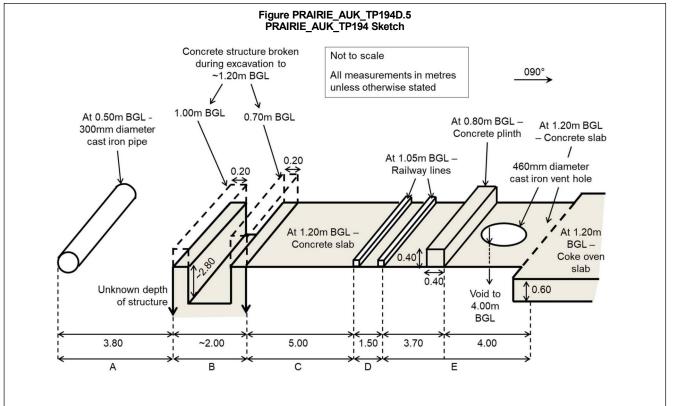
E:454444.765 N:520997.809

Method (Equipment): Ground Level (m): Start Date: 29/04/2020

Machine Excavated (360 Tracked Excavator)

Start Date: 29/04/2020

4 of 4



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

ect:	F	Prairie S	ite Gro	ound Inv	estigatio	Works		Exploratory Hole No.	
nt: South To	ees Development	Corpora	ation		Location	E:454444.765 N:52099	RAIRIE_AUK_TP194		
hod (Equipment): Machi	ne Excavated (360	) Tracke	ed Exc	avator)		Ground Level (m): 13.208	Start Date: 29/04/2020	Sheet: 1 of 4	
SAMPLES	& TESTS					ISTRATA	\		
Depth Type	Test Result		Reduced Level	Legend	Depth (Thickness)		Description		
			12.01		(1.20)	MADE GROUND (Grey grasubangular and includes so Cobbles are subangular arred and yellow brick. Slag at c.1.20m BGL concrete 4.00m BGL.  Terminated at 1.20m BGL -	lag and red brick nd include slag, c content is 50-75% e slab. Engineer	. Slag content is 25-50%. concrete, metal, wood and %. Slag is vesicular grey).	
Face D	PLAN 7.70 Face A  Orientation 090°	_	Face	3.00	No gro	NDWATER indwater inflow observed.			
	Face C	IATION	σ.		GENE	s and base moderately stable			
sketch Diagram:	Ske	tch Taker	n			pit excavated across slope e.g sketch.	xposing various su	ubsurface structures - refer to	
					<b>⊣</b> I				

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

#### TRIAL PIT RECORD

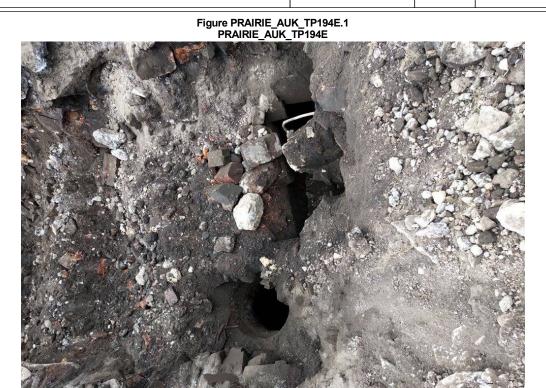
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194E South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4







### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP194E South Tees Development Corporation E:454444.765 N:520997.809

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4





Figure PRAIRIE\_AUK\_TP194E.4
PRAIRIE\_AUK\_TP194 (From Section E looking towards Section A)



Head Office: Regional Office

Machine Excavated (360 Tracked Excavator)

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

Start Date:

29/04/2020

Sheet:

4 of 4

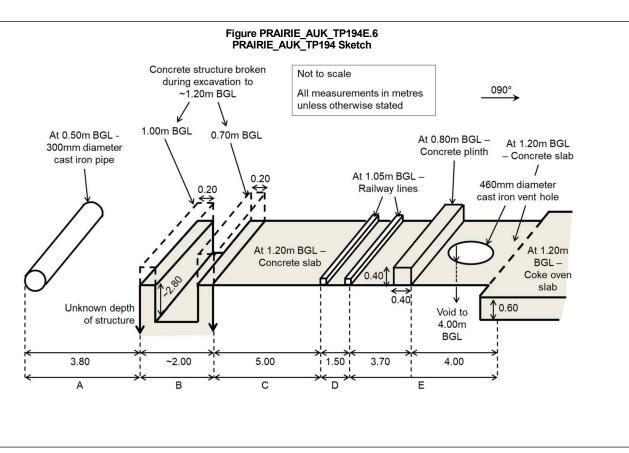
Client:

Method (Equipment):

# TRIAL PIT RECORD PRELIM3 Prairie Site Ground Investigation Works Exploratory Hole No. South Tees Development Corporation E:454444.765 N:520997.809 PRAIRIE\_AUK\_TP194E

Ground Level (m): 13.208





### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

7								
ect:	on Works Exploratory Hole No.							
t: South	Tees Development	Corpo	ration		Location	PRAIRIE_AUK_TP1		
od (Equipment):	hine Excavated (360	) Trac	ked Eve	avator)		E:454479.190 N:520939.302		
	`	IIIac	T EXC	avalui)				
SAMPLES	S & TESTS	Ĺ				STRATA		
Depth Typ	pe Test p Result	Water	Reduced Level	Legend	Depth (Thickness)	Description		
11.86 11.46 10.46				12.46 0.10 (0.60) 11.86 0.70 (0.40) 11.46 (1.00)		Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and includes slag, sandstone and concrete. Slag content is 25-50%. Slag is vesicular grey).  MADE GROUND (Brown grey very sandy gravel with high cobble content. Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and includes slag, concrete and red and yellow brick. Slag content is 0-25%. Cobbles are angular and include red and yellow brick and concrete. Slag is vesicular grey).  at c.0.70m BGL concrete slab - extend pit east.  MADE GROUND (Brown grey very sandy gravel with high cobble content. Sand is fine to coarse subangular and includes slag, concrete and red and yellow		
•	PLAN 10.00 Face A			<b>→</b>		JNDWATER bundwater inflow observed.		
Orientation 090° Face C  ADDITIONAL INFORMATION						ILITY es and base stable throughout excavation.		
						ERAL REMARKS al pit excavated on slope.		
ketch Diagram:	Ske	tch Tal	ken			ai pit chouvatou oii siopo.		
Photographs:	Yes		See add shee					
All dimension					of symbo			

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP195 South Tees Development Corporation

E:454479.190 N:520939.302 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4



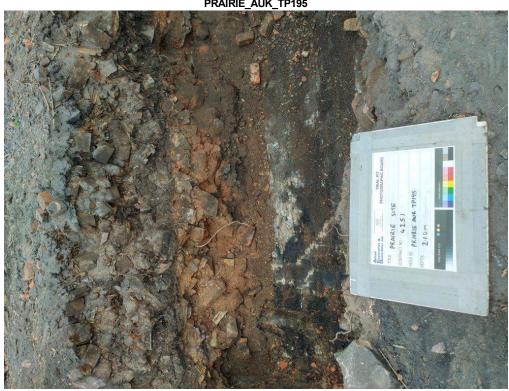


Figure PRAIRIE\_AUK\_TP195.2 PRAIRIE\_AUK\_TP195



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP195 South Tees Development Corporation E:454479.190 N:520939.302

Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4

Figure PRAIRIE\_AUK\_TP195.3 PRAIRIE\_AUK\_TP195

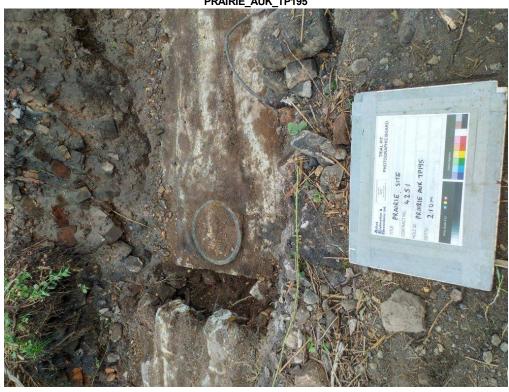
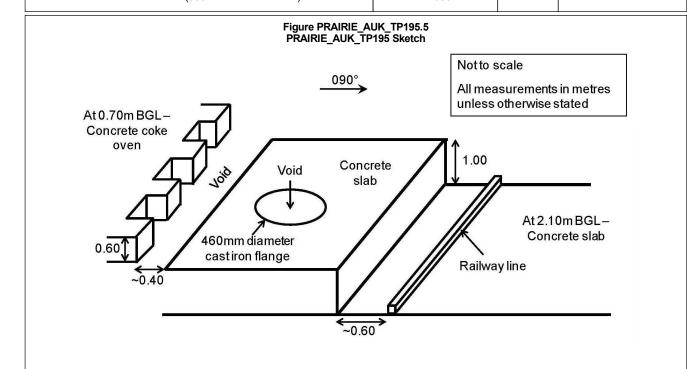


Figure PRAIRIE\_AUK\_TP195.4 PRAIRIE\_AUK\_TP195 - Spoil



Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4700 Fax: 0197 375 999

#### TRIAL PIT RECORD PRELIM3 Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP195 South Tees Development Corporation E:454479.190 N:520939.302 Start Date: 28/04/2020 Method (Equipment): Machine Excavated (360 Tracked Excavator) Ground Level (m): 12.556 4 of 4



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Project:		F	Prairie	Site Gro	ound Inv	restigatio	n Wor	ks				Expl	oratory Hole No.
								PRAIRIE_AUK_TP19					
Method (Equip	ment): Machine	Excavated (360	) Trac	ked Exc	avator)	1		Ground Le			Start Date: 29/04/2020	Sheet:	1 of 4
SA	MPLES &								STRAT	- <u> </u>			
	Type	Test	ter	Reduced		Depth			011011				
Depth	No	Result	Water	Level	Legend	(Thickness)					scription		th medium cobble
1.40 ES1				9.79 9.59 9.19		(1.40) co Gr (1.40) inc ve at 1.40 M/ co (0.40) co an 2.00 ve sh Fir		content. Sand is fine to coarse. Gravel is fine to coarse subangular and includes slag. Gravel slag content is 75-100%. Cobbles are					
		PLAN				GROU			0m BGL (Hea	wy inflo	nav)		
		3.00 Face A			1	Jaiura	igu Slí	и <b>а а</b> . 1.6	om por (nea	ivy IIIIIO	·vv )		
Face D		Orientation 090° Face C		Tace B		STABI Pit side		base mo	derately stable	e throu	ghout excava	ation.	
	ADDIT	IONAL INFORM	1ΔΤΙΩ	NI		GENE	RAI F	REMARK	<u> </u>				
Sketch Dia			tch Tak						on slope.				
Photogra	aphs:	Yes		See add shee									
	ensions in Scale 1:50					of symbo		ı	Checked	by:	Logged D. Portsr		Contract No. <b>4251</b>

### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP196A South Tees Development Corporation

E:454436.008 N:520967.820 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4





Figure PRAIRIE\_AUK\_TP196A.2
PRAIRIE\_AUK\_TP196 (Section A towards Section B)



### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP196A South Tees Development Corporation

E:454436.008 N:520967.820 Ground Level (m): 11.190 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4

Figure PRAIRIE\_AUK\_TP196A.3
PRAIRIE\_AUK\_TP196 (Section B towards Section A)







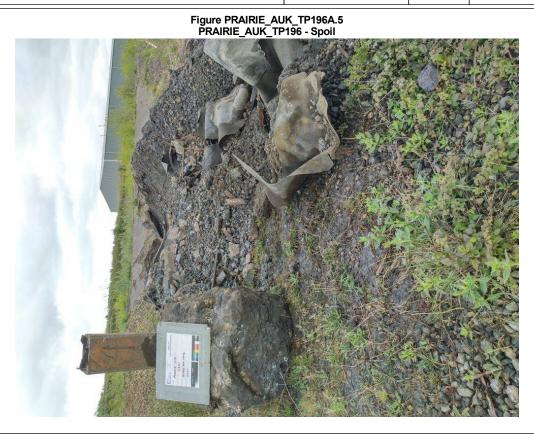
Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

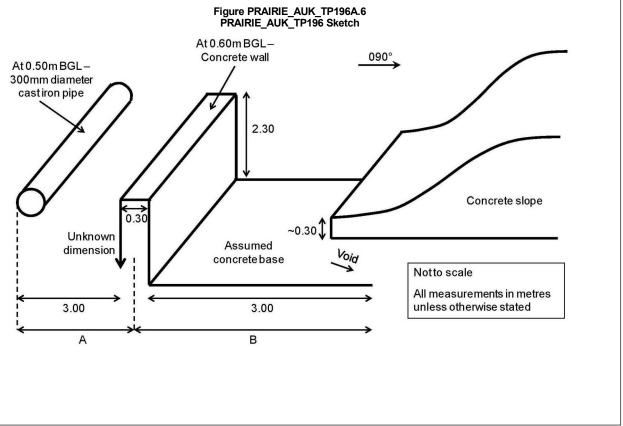
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP196A South Tees Development Corporation E:454436.008 N:520967.820 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 11.190 Sheet: 4 of 4





### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

roject:												
		Ī	Prairie	Site Gr	ound Inv	estigation		rks			Explo	ratory Hole No.
lient:	South To	ees Development	Corpo	ration		Location		:454426	.008 N:520967.82	PF	AIRIE	_AUK_TP19
lethod (Ed	quipment): Machi	ne Excavated (36	0 Trac	ked Exc	avator)			Ground Le	vel (m): 11.190	Start Date: 29/04/2020	Sheet:	1 of 5
	SAMPLES	& TESTS							STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)				Description		
			>	9.99		(1.20)	coa slag slag	rse. Grav content content	UND (Grey sandy vel is fine to coars 50-75%. Cobbles is 75-100%. Slag UND (Grey grave)	e subangular s are angular is vesicular).	and inclu	des slag. Gravel de slag. Cobble
				8.29		(1.70)	bou slag incli Bou	lder cont ı. Gravel ude slag,	ent. Gravel is fine slag content is 25 concrete and me subangular and	to coarse su 5-50%. Cobble tal. Cobble sl	bangular es are sul ag conter	and includes pangular and nt is 50-75%.
									at 2.90m BGL - du			
		PLAN				GROU	INDW	ATER				
	<u> </u>	3.00 Face A			<u></u>				0m BGL (heavy inf	flow).		
	Face D	Orientation 090°		T ace	2.10	STABI Pit side		base mo	derately stable thro	oughout excava	ation.	
L		Face C			<b>」</b> ↓							
	ADD	ITIONAL INFORM	ΛΑΤΙΟΙ	N		GENE	RAL I	REMARK	 (S			
Sketch	ı Diagram:		etch Tak			(1) Tria	al pit e	xcavated	on slope.			
Photo	ographs:	Yes		See add shee								
All d	dimensions Scale 1:			or exp	lanation	of symbo	ols an	d	Checked by:	Logged D. Portsr	l by:	Contract No. 4251

TRIAL PIT RECORD

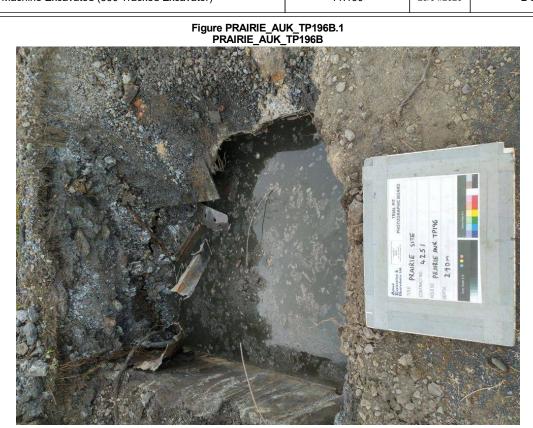
PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP196B South Tees Development Corporation E:454436.008 N:520967.820

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 5





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP196B South Tees Development Corporation

E:454436.008 N:520967.820 Ground Level (m): 11.190 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 5

Figure PRAIRIE\_AUK\_TP196B.3
PRAIRIE\_AUK\_TP196 (Section A towards Section B)



Figure PRAIRIE\_AUK\_TP196B.4
PRAIRIE\_AUK\_TP196 (Section B towards Section A)



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP196B South Tees Development Corporation E:454436.008 N:520967.820 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 4 of 5





Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4700 Fax: 0197 375 999

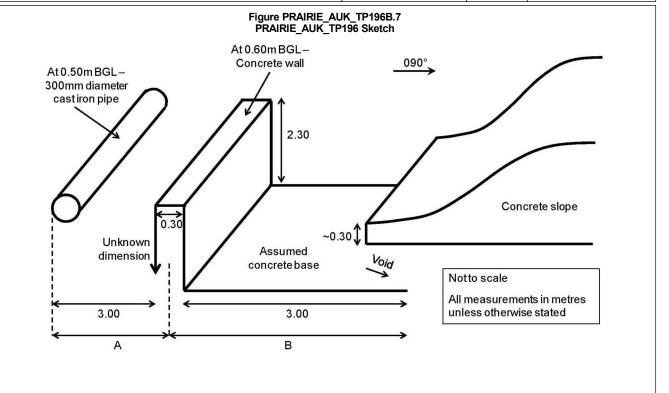


### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP196B South Tees Development Corporation E:454436.008 N:520967.820 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 11.190 Sheet: 5 of 5



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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#### TRIAL PIT RECORD

Project:	oject: Prairie Site Ground Investigation Works									Explo	ratory Hole No.	
Client:							:		D		E_AUK_TP1	
South Tees Development Corporation								9.745 N:520922.3	79			
Method (Equipme		e Excavated (36	60 Trac	ked Exc	avator)		Ground I	Level (m): 11.396	Start Date: 29/04/2020	Sheet:	1 of 4	
SAMPLES & TESTS							STRATA					
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		I	Description			
				9.60		(1.80) (1.80) (1.00) (1.00) (1.00)	content. Sa coarse sub concrete. Cinclude red Slag is vesi  MADE GRO boulder cor includes as sandstone, Cobbles armetal. Cobinclude con include con in	DUND (Brown grey and is fine to coarse angular and includ gravel slag content brick, concrete an icular grey).  DUND (Brown grey and the fine to red brick and conce angular and include slag content is crete. Slag is vesicat 2.80m BGL - du	e and include: e slag, sands is 25-50%. C d slag. Cobble  / very gravel a rders). Sand i coarse subar ude red brick, 0-25%. Bould cular grey).	s ash. Gra tone, red obbles and e slag cor and cobble s fine to c slag conte concrete, lers are an	es with low oarse and includes slag, wood and ngular and	
		PLAN				GROU	    INDWATER					
-		4.00			•			.80m BGL (heavy in	flow).			
Face C					STABI Pit side		oderately stable thr	oughout excav	ation.			
	ADDIT	TONAL INFORM	MATIO	N		11 -	RAL REMAR					
Sketch Diagram: Sketch Taken					(2) No (3) Tria	<ul><li>(1) Trial pit excavated on slope.</li><li>(2) No samples taken.</li><li>(3) Trial pit excavated across slope exposing various subsurface structures - refer to following sketch.</li></ul>						
Photograph	hs:	Yes		See add shee								
All dimensions in metres  Scale 1:50  All dimensions in metres  For explanation of appreciations see					of symbo	ols and	Checked by:	Logged D. Portsi		Contract No. 4251		

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP197 South Tees Development Corporation

E:454449.745 N:520922.379 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 4



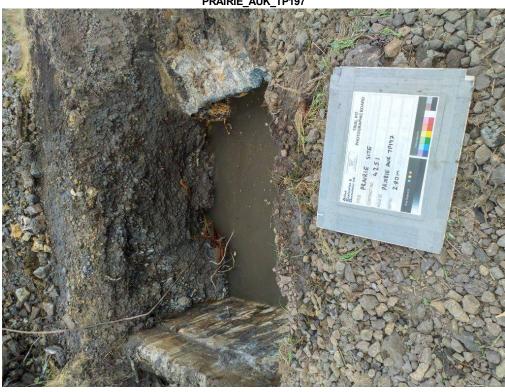


Figure PRAIRIE\_AUK\_TP197.2 PRAIRIE\_AUK\_TP197



### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP197 South Tees Development Corporation E:454449.745 N:520922.379

Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4





Figure PRAIRIE\_AUK\_TP197.4 PRAIRIE\_AUK\_TP197



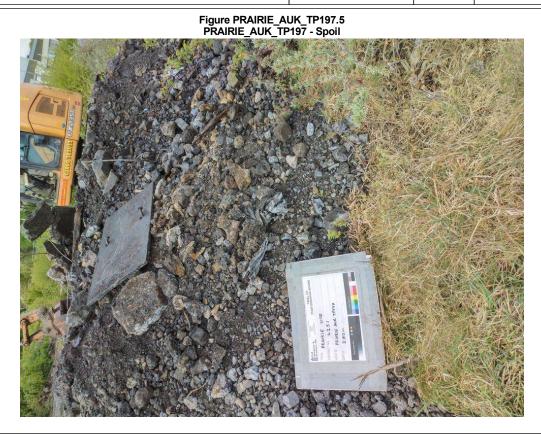
Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

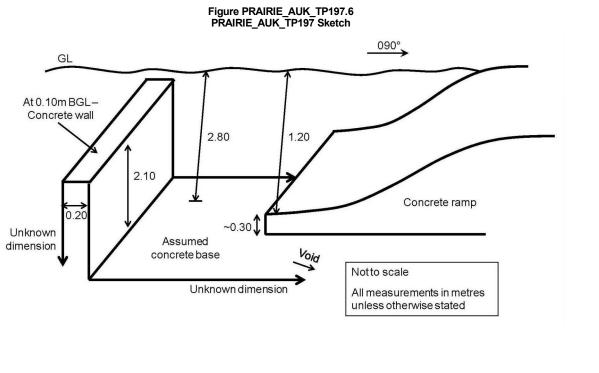
#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP197 South Tees Development Corporation E:454449.745 N:520922.379 Start Date: 29/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 11.396 4 of 4





### ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### **TRIAL PIT RECORD**

<b>3</b>							_		TILLING
Project:  Prairie Site Ground Investigation Works  Client:  South Tees Development Corporation  Plant								Exploratory Hole No.	
								PRAIRIE_AUK_TP1	
ethod (Equipment):						E:454458 Ground Lo	3.796 N:520990. evel (m):		Sheet:
Machine Excavated (360 Tracked Excavator)							12.937	27/04/2020	1 of 7
SAMPLES & TESTS							STRATA		
Depth	Type Test No Result	Water	Reduced Level	Legend	Depth (Thickness)			Description	
			11.74		- 0.20 - (1.00) - 1.20 - 1.20 - 2.60	Sand is fine includes sla is vesicular MADE GRC and low bou Gravel is fin ash, concret angular and 10-20mm). I sections and green). MADE GRC content and to coarse ar concrete an yellow brick, at c.1.20m E at c.2.60m E	to coarse. Grave, sandstone and grey).  UND (Red brow lider content and e to coarse angule, red brick and include red and Boulders are angule concrete (rebail UND (Red brow fragments of wongular to subang.	al is fine to coad concrete. Sla  In black sandy of metal and wood lar to subanguslag. Slag confugellow brick argular and include 10-20mm). Slam black sandy of black sand is finular and include les are angulad concrete).  extend pit east extend pit east extend pit east	:
PLAN  32.00  Face A  Orientation  090  Face C  ADDITIONAL INFORMATION					STABI Pit side	es and base mo	oderately stable th	roughout excav	ation.
ADDITIONAL INFORMATION  Sketch Diagram: Sketch Taken					(1) Tria followir (2) At 2	GENERAL REMARKS (1) Trial pit excavated across slope exposing various subsurface structures - refer to following sketch. (2) At 2.60m BGL - pit extended north from western end. Same ground conditions encountered to 1.60m BGL.			
Photographs: Yes See additional sheets.									
	sions in metres				of symbo		Checked by:	Logged D. Portsr	

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP198 South Tees Development Corporation

E:454458.796 N:520990.155 Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 7





#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP198 South Tees Development Corporation E:454458.796 N:520990.155

Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 7





Figure PRAIRIE\_AUK\_TP198.4 PRAIRIE\_AUK\_TP198



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#### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP198 South Tees Development Corporation

E:454458.796 N:520990.155 Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 4 of 7

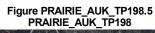




Figure PRAIRIE\_AUK\_TP198.6 PRAIRIE\_AUK\_TP198



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

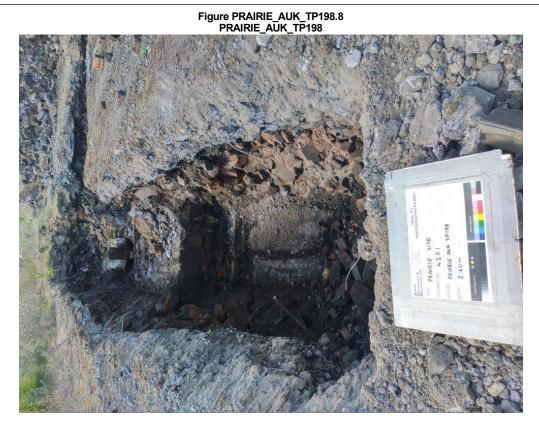
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP198 South Tees Development Corporation E:454458.796 N:520990.155

Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 5 of 7





Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Fax: 01972 735 399

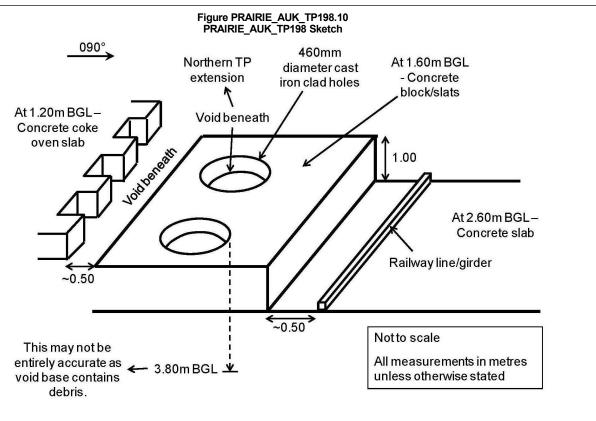
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP198 South Tees Development Corporation E:454458.796 N:520990.155 Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 6 of 7





Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01772 735 300 Fax: 01772 735 999

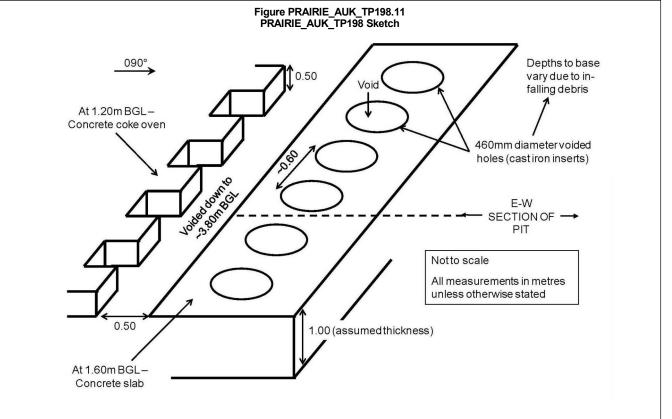


### TRIAL PIT RECORD

PRELIM3

Prairie Site Ground Investigation Works Exploratory Hole No. Client: Location: PRAIRIE\_AUK\_TP198 South Tees Development Corporation E:454458.796 N:520990.155 Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 12.937 7 of 7



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

PRELIM3

ect:	I	Prairie	Site Gro	ound Inv	estigatio	n Wo	rks		Exploratory Hole No.		
nt: South	Tees Development	Corpo	ration		Location: F:454465.130 N:521024.309				RAIRIE_AUK_TP1		
hod (Equipment): Ma	: achine Excavated (360 Tracked Excavator)						Ground Level (m): 13.209	Start Date: 27/04/2020	Sheet: 1 of 4		
SAMPLI	ES & TESTS						LSTRATA		1		
	ype Test No Result	Water	Reduced Level	Legend	Depth (Thickness)			Description			
	NO RESUIT	10.21		(1.20)	MAI MAI MAI Firm med	g is vesicular grey).  DE GROUND (Red brown low boulder content and to coarse. Gravel is fine udes clinker, ash, coal, coatent is 0-25%. Cobbles a k and concrete (rebar 10-25%).	by very sandy gree subangular many rootlets in black sandy fragments of to coarse angular and 50mm). Bould sections and coarse angular and red brick for angular se angular to and red brick. Cand concrete).	gravel with high cobble wood and metal. Sand is ular to subangular and red brick and slag. Slag includes red and yellow lers are angular and oncrete (rebar 10-30mm).			
	PLAN 8.00 Face A			<b>^</b>			/ATER ater inflow observed.				
Face D	Orientation 090° Face C		race B	2.60	STABI Pit side		I base moderately stable th	roughout excav	ation.		
A	DDITIONAL INFORM	ИАТІО	N				REMARKS				
sketch Diagram	Ske	etch Tak	en		sketch.		subsurface structures expos les taken.	sed during exca	vation - refer to following		
Photographs:	Yes		See add		1						

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

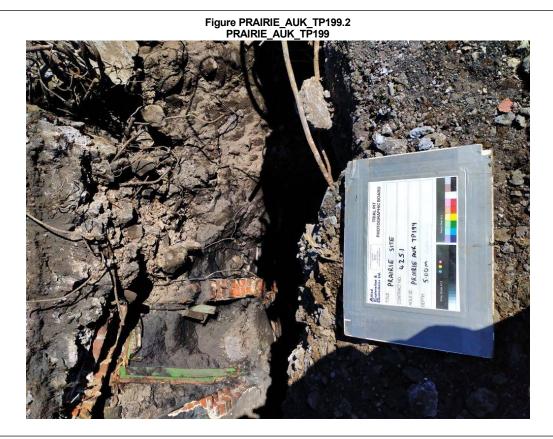
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP199 South Tees Development Corporation E:454465.130 N:521024.309

Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.209 2 of 4





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP199 South Tees Development Corporation

E:454465.130 N:521024.309 Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 4





Figure PRAIRIE\_AUK\_TP199.4 PRAIRIE\_AUK\_TP199 - Spoil



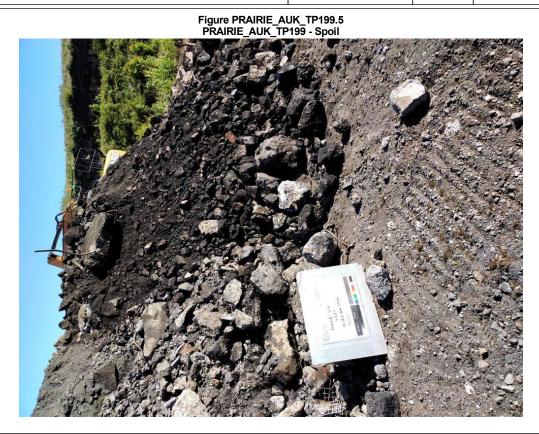
Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG
Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL
Tel: 0191 387 4700 Fax: 0191 387 4710
Tel: 01972 735 300 Fax: 01772 735 999

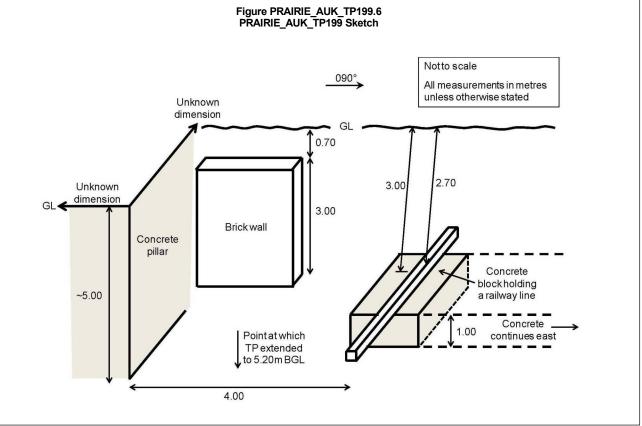
### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works Client: Location: PRAIRIE\_AUK\_TP199 South Tees Development Corporation E:454465.130 N:521024.309 Start Date: 27/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 13.209 4 of 4





# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

PRELIM3

										•	
Project:			Prairie	Site Gr	ound Inv	estigation	n Works			Expl	oratory Hole No.
Client:	South Tee	es Developmen	t Corpo	ration		Location: PF					E_AUK_TP20
Method (Equipm		·	•				E:454446 Ground Le		26 Start Date:	Sheet:	
	Machine	e Excavated (36	30 Trac	ked Exc	cavator)			10.527	28/04/2020		1 of 6
SAN	/IPLES &	TESTS						STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		1	Description		
	8.03 7.73				(0.80)	content with Gravel is fin concrete. SI red brick. SI MADE GRO content. Sar coarse suba brick. Slag c and yellow b at c.0.20m E MADE GRO and includes ash, clinker, at c.2.00m E	many rootlets. Sae to coarse subar ag content is 25-5 ag is vesicular greund is fine to coarse sugular and include ontent is 25-50% whick and concrete BGL concrete e UND (Black greys ash. Gravel is fine coke and red brick and concrete ir grey yellow sandy	and is fine to c gular and inci 50%. Cobbles ey).  y very sandy g e and includes es slag, conci . Cobbles are s. Slag is vesion ncountered - e sandy gravel. ne to coarse s ck).	coarse a ludes sla are ang ravel wi s ash. G rete and angular cular gre extender Sand is ubangul of pit - p	ag, sandstone and ular and include  th medium cobble ravel is fine to red and yellow and include red by). d pit west. if fine to coarse ar and includes bit extended.	
		DLAN				CROU	NDWATED				
Face D		PLAN 13.00 Face A  Orientation 090° Face C		n doc		No grou		v observed.	eavation.		
	V D D 13	FIONIAL INCOM	NAAT! ^	NI .			DAL DEMAS	/C			
ADDITIONAL INFORMATION  Sketch Diagram: Sketch Taken						(1) Tria (2) Struthe san Structu (3) Vari PRAIR	ne as between res bottomed o ious structures IE_AUK_TP20	west on slope. d when extending p 0.20-1.00m BGL b out at 3.50m BGL. exposed during ex 0B.	ut with medium	n boulder	kfilled with material content (concrete).
Photograp	ohs:	Yes		See add shee			samples taken				
	nsions in Scale 1:50					of symbo ee Key S		Checked by:	Logged D. Portsr		Contract No. <b>4251</b>

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200A South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 6

Figure PRAIRIE\_AUK\_TP200A.1 PRAIRIE\_AUK\_TP200







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200A South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 6

Figure PRAIRIE\_AUK\_TP200A.3 PRAIRIE\_AUK\_TP200







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200A South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.527 4 of 6

Figure PRAIRIE\_AUK\_TP200A.5 PRAIRIE\_AUK\_TP200



Figure PRAIRIE\_AUK\_TP200A.6 PRAIRIE\_AUK\_TP200



Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

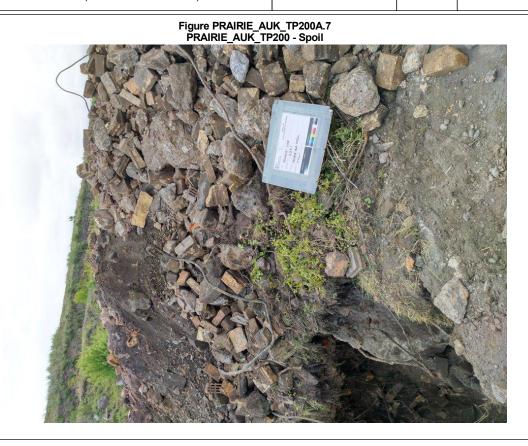
PRELIM3

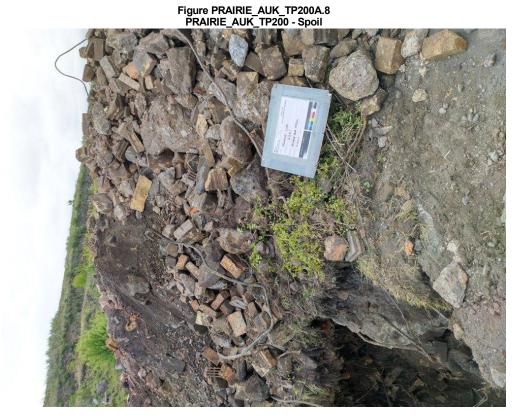
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200A South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.527 5 of 6





Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710



# TRIAL PIT RECORD

PRELIM3

Project: Prairie Site Ground Investigation Works

Client: South Tees Development Corporation

South Tees Development Corporation

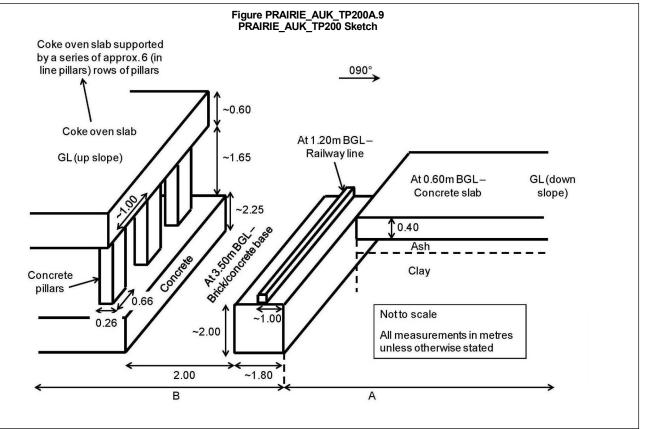
E:454446.479 N:521086.026

Method (Equipment): Ground Level (m): Start Date: 28/04/2020

Machine Excavated (360 Tracked Excavator)

Start Date: 28/04/2020

G of 6



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

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### TRIAL PIT RECORD

PRELIM3

oject:			Prairie	Site Gr	ound Inv	estigation/	n Works			Exploratory	Hole No.
nt:	South Te	es Developmen	Corpo	ration		Location	:	PF	RAIRIE_AUK_TP20		
nod (Equipm		- F	0 T				E:454446 Ground Le		26 Start Date:	Sheet:	
	Machine Excavated (360 Tracked Excavator)							10.527	28/04/2020	1 of 6	) 
SAN	/IPLES &	TESTS			1			STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
				10.33		0.20	content with Gravel is fin- concrete. Slared brick. Sla MADE GRO	UND (Brown grey many rootlets. Sa e to coarse subar ag content is 25-5 ag is vesicular gre UND (Brown grey content. Sand is	and is fine to ongular and including an anti-	oarse and includudes slag, sand are angular and	des ash. stone and include m cobble
			<u>‡</u>	7.03		(13.30) (	is fine to coa yellow brick. include red a include cond	content. Sand is arse subangular a Slag content is 2 and yellow brick a crete. Slag is vesi	ind includes sl 5-50%. Cobbl and concrete. I	ag, concrete and es are angular a	d red and Ind
		PLAN				CROU	INDWATER				
		2.00 Face A			<b>1</b>			BGL (slight inflow)	).		
Face D		Orientation 090°		a C C	- 5.00 —	STABI Pit side		ble throughout exc	cavation.		
		Face C			_ ↓						
	ADDI	TIONAL INFOR	MATIO	N		GENE	RAL REMARK	(S			
ketch Diag	gram:	Sk	etch Tak	en							
Photograp	ohs:	Yes		See add shee							
	nsions ir scale 1:5	n metres		For exp abbrev	lanation	of symbo	ols and Sheets	Checked by:	Logged D. Portsr		ract No. 2 <b>51</b>

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200B South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 6

Figure PRAIRIE\_AUK\_TP200B.1 PRAIRIE\_AUK\_TP200



Figure PRAIRIE\_AUK\_TP200B.2 PRAIRIE\_AUK\_TP200



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200B South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 3 of 6





Figure PRAIRIE\_AUK\_TP200B.4 PRAIRIE\_AUK\_TP200



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### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200B South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.527 4 of 6

Figure PRAIRIE\_AUK\_TP200B.5 PRAIRIE\_AUK\_TP200



Figure PRAIRIE\_AUK\_TP200B.6 PRAIRIE\_AUK\_TP200



Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01972 735 390 Fax: 01772 735 399

### TRIAL PIT RECORD

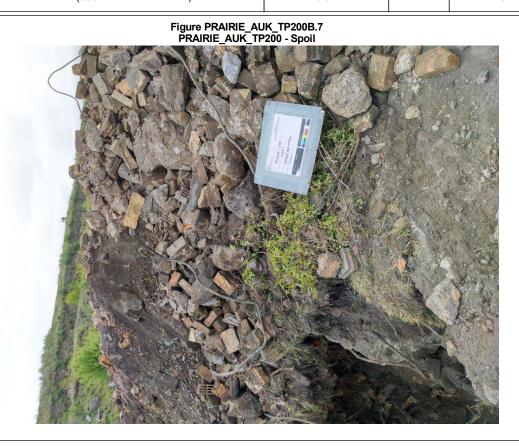
PRELIM3

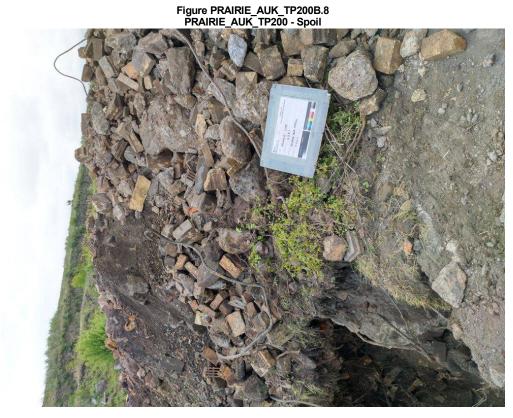
Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP200B South Tees Development Corporation

E:454446.479 N:521086.026 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) Ground Level (m): 10.527 5 of 6





Head Office: Regional Offic Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710



### TRIAL PIT RECORD

PRELIM3

Project:
Prairie Site Ground Investigation Works

Exploratory Hole No.

Client:
South Tees Development Corporation

E:454446.479 N:521086.026

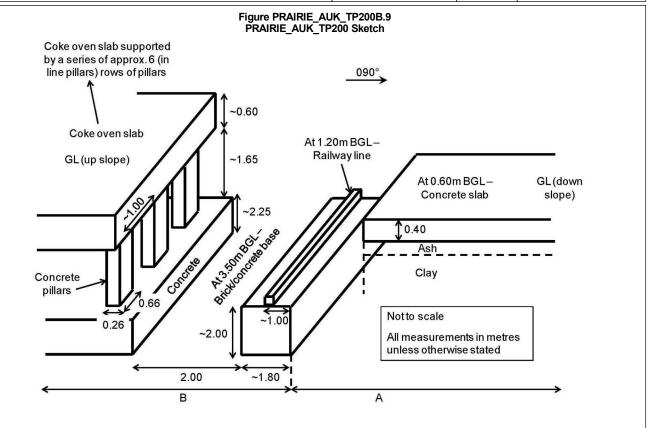
Method (Equipment):
Machine Excavated (360 Tracked Excavator)

PRAIRIE\_AUK\_TP200B

E:454446.479 N:521086.026

Ground Level (m):
10.527

Start Date:
28/04/2020
6 of 6



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

_	
	-

### TRIAL PIT RECORD

PRELIM3

Client: South Tees Development Corporation    Continuation								
South Tees Development Corporation  E.454512.591 N.520927.507  Sheet Substitute Substitu	Project:		F	Prairie	Site Gr	ound Inv	estigatio	n Works Exploratory Hole No.
SAMPLES & TESTS   Sections   Street   Sections   Sec	Client:	South To	es Develonment	Corna	oration		Location	PRAIRIF ALIK TOON
SAMPLES & TESTS   STRATA   Description   D			es Development	Согрс	Jialion			E:454512.591 N:520927.507
Page	Method (Equipn		e Excavated (360	) Trac	ked Exc	cavator)		
ADDITIONAL INFORMATION    MADE GROUND (Brown grey very sandy gravel with many rootlets. Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and concrete. Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and includes ash. Gravel is fine to coarse subangular and includes ash. Gravel is fine to coarse subangular and includes ash. Gravel is fine to coarse subangular and includes ash. Gravel is fine to coarse and includes and includes and concrete. Slag is vesicular grey).    1,40    MADE GROUND (Yellow grey very dayey sandy gravel with high cobble content. Sand is fine to coarse and includes an	SAN	MPLES 8	TESTS					STRATA
Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and concrete. Slag ontent is 25-50%. Slag is vesicular grey).  MADE GROUND (Brown black grey compacted ash/clinker. Recovered as a sandy gravel. Sand is fine to coarse and includes ash and clinker).  MADE GROUND (Brown grey yellow very sandy gravel with high cobble content. Sand is fine to coarse and includes ash, clinker).  MADE GROUND (Recovered as a sandy gravel. Sand is fine to coarse and includes ash, clinker, coarse, sandstone and red and yellow brick. Slag content is 0-25%. Cobbles are angular and includer and includes ash, clinker, cobble content. Sand is fine to coarse and is predominantly ash. Cravel is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes ash, clinker, cobble content. Sand is fine to coarse subangular and includes	Depth			Water		Legend	Depth (Thickness)	Description
ADDITIONAL INFORMATION  ADDITIONAL INFORMATION  GENERAL REMARKS  (1) Trial pit excavated into a raised earth bund. All measurements taken from top of slope.	3.60	ES1			14.13		(1.20)	Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular slag, sandstone and concrete. Slag content is 25-50%. Slag is vesicular grey).  MADE GROUND (Brown black grey compacted ash/clinker. Recovered as a sandy gravel. Sand is fine to coarse and predominantly ash. Gravel is fine to coarse subangular and includes ash and clinker).  MADE GROUND (Brown grey yellow very sandy gravel with high cobble content. Sand is fine to coarse and includes ash. Gravel is fine to coarse subangular and includes slag, concrete, sandstone and red and yellow brick. Slag content is 0-25%. Cobbles are angular and include red and yellow brick and concrete. Slag is vesicular grey).  MADE GROUND (Yellow grey very clayey sandy gravel with high cobble content. Sand is fine to coarse and is predominantly ash. Gravel is fine to coarse subangular and includes ash, clinker, coke, red brick and sandstone. Cobbles are angular and include sandstone and concrete. Engineer notes strata is mixed slightly (in-situ) with strata above due to gradient of slope).
See additional	Sketch Dia	gram:	4.00 Face A  Orientation 090° Face C		N Ken		STABI Pit side	LITY es and base stable throughout excavation.
All dimensions in metres Scale 1:50  See additional sheets.  For explanation of symbols and Scale 1:50  Checked by: Logged by: Contract No. D. Portsmouth 4251	All dime	ensions ir	n metres		shee For exp	ets. Ianation	of symbo	

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 999

## TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP201 South Tees Development Corporation

E:454512.591 N:520927.507 Start Date: 28/04/2020 Method (Equipment):

Machine Excavated (360 Tracked Excavator) 2 of 3

Figure PRAIRIE\_AUK\_TP201.1 PRAIRIE\_AUK\_TP201







# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4701 Tel: 01772 735 300 Fax: 01772 735 999

### TRIAL PIT RECORD

PRELIM3

Exploratory Hole No. Prairie Site Ground Investigation Works

Client: Location: PRAIRIE\_AUK\_TP201 South Tees Development Corporation

E:454512.591 N:520927.507 Method (Equipment):
Machine Excavated (360 Tracked Excavator) Start Date: 28/04/2020 3 of 3





Figure PRAIRIE\_AUK\_TP201.4 PRAIRIE\_AUK\_TP201 - Spoil



**Groundwater Observations Made at the Time of Site Works** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stelle Clinic Earlie Pelon Felt Cheserole-Street, Co. Dunham, DH2 2RG Tei: 01772 735 300 Fax: 01727 735 5999 GROUNDWATER OBSERVATIONS MADE AT THE TIME OF SITE WORKS (WATER STRIKES)

	Remarks												į.	AEG Contract No :- 4251	Certificate No. :- GWOWS/4251/1
		Slow inflow.	Slow inflow.	Water strike (slow inflow).	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	South Tees Development Corporation	Approved By :-
	Depth After 20 mins	2.58	12.36	2.88	4.32	8.47		2	. ,					South Tees	Approv
<b>(</b>	Depth After 15 mins	2.60	13.11	2.90	5.63	8.78						7 /		Client :-	,
	Depth After 10 mins	2.64	13.72	2.93	6.11	9.06	×			a"	,			0	
	Depth After 5 mins	2.88	14.06	2.96	6.84	9.42	2.		,					* .	Checked By :-
	Total Time (mins)	20	20	20	20	20							,		Ō
	Final Depth (m)	2.58	12.36	2.88	4.32	8.47	,					8	×	lation Works	1 of 3
	Depth Sealed (m)	4.00	,	4.00		12.50								Prairie Site Ground Investigation Works	
	Depth of Casing (m)	2.80	14.46	2.88	8.40	10.06		,						lirie Site Gro	Page No.
	Depth of Water (m)	3.00	14.80	3.00	8.60	10.30	2.00	2.30	2.40	1.70	0:30	2.20	1.30	Pra	0;
	Date	27/04/2020	28/04/2020	16/04/2020	16/04/2020	21/04/2020	06/04/2020	06/04/2020	22/04/2020	06/04/2020	08/04/2020	22/04/2020	20/04/2020	itle :-	sue :- 01/07/2020
	Exploratory Hole No.	PRAIRIE_AUK_BH101	PRAIRIE_AUK_BH101	PRAIRIE_AUK_BH105	PRAIRIE_AUK_BH105	PRAIRIE_AUK_BH110	PRAIRIE_AUK_TP107 (	PRAIRIE_AUK_TP108 (	PRAIRIE_AUK_TP112	PRAIRIE_AUK_TP113 (	PRAIRIE_AUK_TP115 (	PRAIRIE_AUK_TP119	PRAIRIE_AUK_TP120A 2	Contract Title :-	Date of Issue :-

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stelle Gill Industrial Estate, Pellon Fell, Chester-fe-Street, Co. Dunham, DH2 2RG Te; 0191 387 4700 Faz. 01712 735 300 Faz. 01712 735 300 Faz. 0172 735 300 Faz. 017

(WATEN STRIKES)	DepthFinalTotalDepthDepthDepthDepthDepthDepthDepthDepthealedDepthTimeAfterAfterAfterAfter(m)(m)5 mins10 mins20 mins	Water strike.	Water strike (Heavy inflow).	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	Water strike.	1.60 Water strike (Heavy inflow).	Perched water.	Water strike.	Client :-   AEG Contract No :-   South Tees Development Corporation   4251	:- Checked By :- Certificate No. :- Conficient of 3 Approved By :- Certificate No. :- GWOWS/4251/2
	Total Depth Time After (mins) 5 mins										0			Works	Checked By:-
	Depth of Depth Fire Casing Sealed Depth (m) (m) (m)	2									1.6			Prairie Site Ground Investigation Works	
	Depth of Depth of (m)	0.90	20 0.30	0.60	1.70	1.90	1.10	20 0.30	0.50	0.90	1.80	1.60	0.60	Prairi	/2020
	Exploratory Date Hole No.	PRAIRIE_AUK_TP121 09/04/2020	PRAIRIE_AUK_TP122 08/04/2020	PRAIRIE_AUK_TP123 08/04/0220	PRAIRIE_AUK_TP127 23/04/2020	PRAIRIE_AUK_TP132 02/04/2020	PRAIRIE_AUK_TP135   15/04/2020	PRAIRIE_AUK_TP136 15/04/2020	PRAIRIE_AUK_TP137   15/04/2020	PRAIRIE_AUK_TP139B 16/04/2020	PRAIRIE_AUK_TP143 23/04/2020	PRAIRIE_AUK_TP147 17/04/2020	PRAIRIE_AUK_TP156 14/04/2020	Contract Title :-	Date of Issue :- 01/07/2020

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Pelon Feet, Con-Dunham, DH2 2RG 1937 4700 Fac. 0191 387 4700 Fac. 0191

	Remarks				educt in Faces C and D.		AEG Contract No :- 4251	Certificate No. :- GWOWS/4251/3
		Water strike.	Water strike.	Water strike.	Water running from brick cable duct in Faces C and D.	Water strike (Slight inflow).	South Tees Development Corporation	ed By :-
	Depth After 20 mins	*					South Tees	Approved By :-
	Depth After 15 mins			e e		*	Client :-	,
	Depth After 10 mins	Y X						
,	Depth After 5 mins	,						Checked By :-
	Total Time (mins)	,						7
	Final Depth (m)						Prairie Site Ground Investigation Works	3 of 3
	Depth Sealed (m)		r			3 31	ound Investig	4
	Depth of Casing (m)						airie Site Gro	Page No.
	Depth of Water (m)	1.00	1.00	08.0	1.20	3.50		50
	Date	17/04/2020	17/04/2020	16/04/2020	16/04/2020	28/04/2020	 ⊕ ₽	sue :- 01/07/2020
	Exploratory Hole No.	PRAIRIE_AUK_TP157B	PRAIRIE_AUK_TP158	PRAIRIE_AUK_TP190	PRAIRIE_AUK_TP190A	PRAIRIE_AUK_TP200B		Date of Issue :-

Head Office:

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2

Tel: 0191 387 4700 Fax: 0191 387 471

# GROUNDWATER OBSERVATIONS MADE AT THE TIME OF SITE WORKS (GROUNDWATER SEEPAGES)

Monitoring Point	Date	Depth (m)	Remarks
PRAIRIE_AUK_TP101	01/04/2020	2.00	Groundwater seepage.
PRAIRIE_AUK_TP114	07/04/2020	0.50	Groundwater seepage.
PRAIRIE_AUK_TP117	23/04/2020	2.60	Groundwater seepage.
PRAIRIE_AUK_TP118	23/04/2020	1.40	Groundwater seepage.
PRAIRIE_AUK_TP120	20/04/2020	1.50	Groundwater seepage.
PRAIRIE_AUK_TP126	17/04/2020	2.70	Slight groundwater seepage (water perched on concrete base).
PRAIRIE_AUK_TP128	17/04/2020	1.00	Saturated strata (slight inflow) at 1.00m BGL. Engineer notes contaminated water seeping from contaminated mudstone pocket into clay.
PRAIRIE_AUK_TP142	23/04/2020	1.20	Saturated strata between 1.00-1.20m BGL (Slight inflow). Water contains globules of oil/contaminants.
PRAIRIE_AUK_TP144	24/04/2020	1.10	Saturated strata (Slight inflow).
PRAIRIE_AUK_TP145	14/04/2020	1.70	Groundwater seepage.
PRAIRIE_AUK_TP146C	14/04/2020	1.20	Groundwater seepage.
PRAIRIE_AUK_TP148A	16/04/2020	1.70	Slight groundwater seepage.
PRAIRIE_AUK_TP155	21/04/2020	0.80	Saturated strata (Slight inflow).
PRAIRIE_AUK_TP159	16/04/2020	1.50	Saturated strata between 0.90-1.50m BGL.
PRAIRIE_AUK_TP162	14/04/2020	2.80	Saturated strata (Heavy inflow).
PRAIRIE_AUK_TP163	14/04/2020	1.10	Saturated strata (Slight inflow).
PRAIRIE_AUK_TP164	16/04/2020	2.40	Saturated strata between 1.20-2.40m BGL (Slow inflow).
PRAIRIE_AUK_TP174	08/04/2020	2.00	Slight groundwater seepage.
PRAIRIE_AUK_TP175	06/04/2020	0.90	Perched water (Slight inflow).
PRAIRIE_AUK_TP177	07/04/2020	1.40	Saturated strata (Heavy inflow).

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



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### GROUNDWATER OBSERVATIONS MADE AT THE TIME OF SITE WORKS (GROUNDWATER SEEPAGES)

Monitoring Point	Date	Depth (m)	Remarks
PRAIRIE_AUK_TP178	09/04/2020	1.50	Perched water (Slight inflow).
PRAIRIE_AUK_TP179	09/04/2020	1.20	Saturated strata (Heavy inflow).
PRAIRIE_AUK_TP181	09/04/2020	1.70	Saturated strata (Slight inflow).
PRAIRIE_AUK_TP182	09/04/2020	1.10	Saturated strata (Slight inflow).
PRAIRIE_AUK_TP186	07/04/2020	1.00	Saturated strata (Moderate inflow). Possibly backfilled cellar/basement.
PRAIRIE_AUK_TP188	08/04/2020	1.70	Saturated strata (Heavy inflow).
PRAIRIE_AUK_TP189	07/04/2020	1.30	Perched water (Slight inflow).
PRAIRIE_AUK_TP192	01/05/2020	1.10	Saturated strata (Slight inflow).
PRAIRIE_AUK_TP193	30/04/2020	0.80	Saturated strata (Slow inflow).
PRAIRIE_AUK_TP194A	29/04/2020	1.50	Saturated strata (Moderate inflow).
PRAIRIE_AUK_TP194B	29/04/2020	1.80	Saturated strata (Heavy inflow).
PRAIRIE_AUK_TP196A	29/04/2020	1.80	Saturated strata (Heavy inflow).
PRAIRIE_AUK_TP196B	29/04/2020	1.80	Saturated strata (Heavy inflow).
PRAIRIE_AUK_TP197	29/04/2020	1.80	Saturated strata (Heavy inflow).

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Contract Title :-		Client :-	
	Prairie Site Ground Investigation Works	: 60	South Tees Development Corporation
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**Groundwater Monitoring Results** 



 Head Office:
 Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-ie-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

### **GROUNDWATER MONITORING RESULTS**

Monitoring Point	Date and Time	Depth and Type of Well	Ground Level (mAOD)	Water Depth (mBGL)	Reduced Water Level (mAOD)	Remarks
PRAIRIE_AUK_BH101	06/05/2020 00:00	10.00m 19mm SPIE	8.64	2.00	6.64	
PRAIRIE_AUK_BH101	15/06/2020 12:05	10.00m 19mm SPIE	8.64	1.77	6.87	
PRAIRIE_AUK_BH101	30/06/2020 09:27	10.00m 19mm SPIE	8.64	1.69	6.95	
PRAIRIE_AUK_BH101	06/05/2020 00:00	16.50m 50mm SP	8.64	3.00	5.64	
PRAIRIE_AUK_BH101	15/06/2020 12:05	16.50m 50mm SP	8.64	1.78	6.86	
PRAIRIE_AUK_BH101	30/06/2020 09:23	16.50m 50mm SP	8.64	1.64	7.00	
PRAIRIE_AUK_BH102	06/05/2020 00:00	7.20m 50mm SP	8.21	1.10	7.11	
PRAIRIE_AUK_BH102	15/06/2020 14:16	7.20m 50mm SP	8.21	0.83	7.38	
PRAIRIE_AUK_BH102	30/06/2020 09:10	7.20m 50mm SP	8.21	0.90	7.31	
PRAIRIE_AUK_BH103	06/05/2020 00:00	8.50m 50mm SP	7.68	2.25	5.43	
PRAIRIE_AUK_BH103	15/06/2020 11:40	8.50m 50mm SP	7.68	1.71	5.97	
PRAIRIE_AUK_BH103	30/06/2020 08:49	8.50m 50mm SP	7.68	1.92	5.76	
PRAIRIE_AUK_BH104	06/05/2020 00:00	18.50m 50mm SP	8.70	6.40	2.30	
PRAIRIE_AUK_BH104	15/06/2020 14:35	18.50m 50mm SP	8.70	4.06	4.64	
PRAIRIE_AUK_BH104	30/06/2020 11:01	18.50m 50mm SP	8.70	6.21	2.49	
PRAIRIE_AUK_BH105	06/05/2020 00:00	11.00m 50mm SP	8.26	4.60	3.66	
PRAIRIE_AUK_BH105	15/06/2020 15:29	11.00m 50mm SP	8.26	4.49	3.77	
PRAIRIE_AUK_BH105	30/06/2020 12:09	11.00m 50mm SP	8.26	4.51	3.75	
PRAIRIE_AUK_BH106	06/05/2020 00:00	10.00m 50mm SP	8.71	3.94	4.77	
PRAIRIE_AUK_BH106	15/06/2020 14:52	10.00m 50mm SP	8.71	2.73	5.98	
Contract Title :-				SP = Stand	pipe - SPIE = S	tandpipe Piezometer.

South Tees Development Corporation Prairie Site Ground Investigation Works

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# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

### **GROUNDWATER MONITORING RESULTS**

Monitoring Point	Date and Time	Depth and Type of Well	Ground Level (mAOD)	Water Depth (mBGL)	Reduced Water Level (mAOD)	Remarks
PRAIRIE_AUK_BH106	30/06/2020 11:28	10.00m 50mm SP	8.71	3.28	5.43	
PRAIRIE_AUK_BH107	06/05/2020 00:00	8.00m 50mm SP	10.16	3.16	7.00	
PRAIRIE_AUK_BH107	15/06/2020 12:41	8.00m 50mm SP	10.16	3.21	6.95	
PRAIRIE_AUK_BH107	30/06/2020 13:05	8.00m 50mm SP	10.16	3.12	7.04	
PRAIRIE_AUK_BH108	06/05/2020 00:00	6.00m 19mm SPIE	8.86	2.20	6.66	
PRAIRIE_AUK_BH108	15/06/2020 15:17	6.00m 19mm SPIE	8.86	1.14	7.72	
PRAIRIE_AUK_BH108	30/06/2020 11:55	6.00m 19mm SPIE	8.86	0.35	8.51	
PRAIRIE_AUK_BH108	06/05/2020 00:00	14.00m 50mm SP	8.86	5.00	3.86	
PRAIRIE_AUK_BH108	15/06/2020 15:15	14.00m 50mm SP	8.86	4.91	3.95	
PRAIRIE_AUK_BH108	30/06/2020 11:51	14.00m 50mm SP	8.86	4.81	4.05	
PRAIRIE_AUK_BH109	06/05/2020 00:00	11.80m 50mm SP	12.09	5.44	6.65	
PRAIRIE_AUK_BH109	15/06/2020 13:04	11.80m 50mm SP	12.09	5.97	6.12	
PRAIRIE_AUK_BH109	30/06/2020 13:29	11.80m 50mm SP	12.09	6.72	5.37	
PRAIRIE_AUK_BH110	06/05/2020 00:00	20.80m 50mm SP	7.80	4.00	3.80	
PRAIRIE_AUK_BH110	15/06/2020 12:23	20.80m 50mm SP	7.80	3.84	3.96	
PRAIRIE_AUK_BH110	30/06/2020 09:46	20.80m 50mm SP	7.80	3.87	3.93	

SP = Standpipe - SPIE = Standpipe Piezometer.													
Contrac	ct Title :- Prairie Site Ground Investi	gation Works	Client :- South	Tees Development Corporation									
	Certificate No. :-	Date of Issue :-		Page No. :-	A								



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Checked By :-	Approved By :-	AEG Contract No. :- 4251



**Gas Monitoring Results** 



Head Office:Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RGTel: 0191 387 4700 Fax: 0191 387 4710Regional Office:Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BLTel: 01772 735 300 Fax: 01772 735 999

### **GAS MONITORING RESULTS**

Monitoring Point	Date and Time	Weather Condition	Temperature °C	Depth and Type of Well	Ground Level (mAOD)	Water Depth (mBGL)	Reduced Water Level (mAOD)	Flow Range (l/hr)	Diff Pressure (mbar)	ATM Pressure Range (mbar)	Methane	۸/۸ %	Methane	% LEL	Carbon	^/^ %	Oxygen	^/^%	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Remarks
_			Ĕ	_ <u>_</u>	Ō	>	P. P.	ш.		A R	(P)	(S)	(P)	(S)	(P)	(S)	(D)	(S)			
PRAIRIE_AUK_BH101	06/05/2020 00:00	Fair	14	10.00m 19mm SPIE	8.64	2.00	6.64	-1.2	11.13	1028	0.4	0.4	8.0	8.0	0.1	<0.1	19.0	19.0	1.0	4.0	
PRAIRIE_AUK_BH101	06/05/2020 00:00	Fair	14	16.50m 50mm SP	8.64	3.00	5.64	-0.4	1.53	1028	0.4	0.4	8.0	8.0	0.1	0.1	20.3	20.3	1.0	<0.1	
PRAIRIE_AUK_BH102	06/05/2020 00:00	Fair	14	7.20m 50mm SP	8.21	1.10	7.11	-5.0	-2.43	1028	0.4	0.4	8.0	8.0	0.1	<0.1	20.5	20.5	1.0	<1.0	
PRAIRIE_AUK_BH102	15/06/2020 14:16	Overcast	15	7.20m 50mm SP	8.21	0.83	7.38	0.1	0.33	1016	0.1	0.1	2.0	2.0	0.1	0.1	20.4	20.4	<1.0	1.0	
PRAIRIE_AUK_BH102	30/06/2020 09:10	Overcast	15	7.20m 50mm SP	8.21	0.90	7.31	0.1	-0.07	1001	<0.1	<0.1	<2.0	<2.0	0.1	0.1	20.5	20.5	<1.0	3	
PRAIRIE_AUK_BH103	06/05/2020 00:00	Fair	14	8.50m 50mm SP	7.68	2.25	5.43	-5.3	-3.36	1028	0.4	0.4	8.0	8.0	0.1	0.1	20.5	20.5	1.0	6.0	
PRAIRIE_AUK_BH104	06/05/2020 00:00	Fair	14	18.50m 50mm SP	8.70	6.40	2.30	-2.7	2.08	1028	0.4	0.4	8.0	8.0	0.1	0.1	20.4	20.4	1.0	2.0	
PRAIRIE_AUK_BH104	15/06/2020 14:35	Overcast	15	18.50m 50mm SP	8.70	4.06	4.64	0.1	-0.09	1016	0.1	0.1	2.0	2.0	0.3	0.2	18.6	18.6	<1.0	6.0	
PRAIRIE_AUK_BH104	30/06/2020 11:01	Overcast	15	18.50m 50mm SP	8.70	6.21	2.49	0.1	-0.31	1001	0.1	0.1	2.0	2.0	0.3	0.3	18.9	18.9	<1.0	3	
PRAIRIE_AUK_BH105	06/05/2020 00:00	Fair	14	11.00m 50mm SP	8.26	4.60	3.66	-0.6	-2.46	1027	0.4	0.4	8.0	8.0	0.1	0.1	20.4	20.4	1.0	<1.0	
PRAIRIE_AUK_BH105	15/06/2020 15:29	Overcast	15	11.00m 50mm SP	8.26	4.49	3.77	0.1	0.02	1016	0.1	0.1	2.0	2.0	0.3	0.3	19.6	19.6	<1.0	5.0	
				See	attached Ca	alibration C	ertificate f	or Model No	and any	other deta	ils. SP =	Standpi	pe - SPIE	= Stand	pipe Piez	zometer.	(P) = Pe	ak - (S) =	Steady - (I	O) = Decline.	
Contract Title :-  Prairie Site Ground Investigation Works  Date of Issue :-  Page No. :-											C	Client :-		South 1	outh Tees Development (			Corporat	ion	AEG Contract No :- 4251	
Date of Issue :- Page No. :- 1 of 3								Chec	Checked By :-						oroved	Ву :-				Certificate No. :-  MON/4251/1	

Head Office:Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RGTel: 0191 387 4700 Fax: 0191 387 4710Regional Office:Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BLTel: 01772 735 300 Fax: 01772 735 999

### **GAS MONITORING RESULTS**

Monitoring Point	Date and Time	Weather Condition	Temperature °C	Depth and Type of Well	Ground Level (mAOD)	Water Depth (mBGL)	Reduced Water Level (mAOD)	Flow Range (l/hr)	Diff Pressure (mbar)	ATM Pressure Range (mbar)	Methane	۸/۸ %	Methane	% LEL	Carbon	^/^ %	Oxygen	% v/v	Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Remarks
_			Ĕ		Ō	>	P. P.	"		A S	(P)	(S)	(P)	(S)	(P)	(S)	(D)	(S)			
PRAIRIE_AUK_BH105	30/06/2020 12:09	Overcast	15	11.00m 50mm SP	8.26	4.51	3.75	0.1	0.05	1002	<0.1	<0.1	<2.0	<2.0	0.2	0.2	19.8	19.8	<1.0	4	
PRAIRIE_AUK_BH106	06/05/2020 00:00	Fair	14	10.00m 50mm SP	8.71	3.94	4.77	-0.6	-2.46	1027	0.4	0.4	8.0	8.0	0.1	0.1	20.4	20.4	1.0	<1.0	
PRAIRIE_AUK_BH106	15/06/2020 14:52	Overcast	15	10.00m 50mm SP	8.71	2.73	5.98	0.0	0.14	1016	0.1	0.1	2.0	2.0	0.1	0.1	19.9	19.9	<1.0	2.0	
PRAIRIE_AUK_BH106	30/06/2020 11:28	Overcast	15	10.00m 50mm SP	8.71	3.28	5.43	0.0	0.15	1002	<0.1	<0.1	<2.0	<2.0	0.1	0.1	20.6	20.6	<1.0	2	
PRAIRIE_AUK_BH107	06/05/2020 00:00	Fair	14	8.00m 50mm SP	10.16	3.16	7.00	-1.1	-2.29	1027	0.4	0.4	8.0	8.0	0.7	0.7	19.8	19.8	1.0	2.0	
PRAIRIE_AUK_BH107	15/06/2020 12:41	Overcast	15	8.00m 50mm SP	10.16	3.21	6.95	0.1	0.28	1015	0.1	0.1	2.0	2.0	3.2	3.2	16.8	16.8	<1.0	2.0	
PRAIRIE_AUK_BH107	30/06/2020 13:05	Overcast	15	8.00m 50mm SP	10.16	3.12	7.04	0.1	0.05	1002	0.1	0.1	<2.0	<2.0	1.9	1.9	18.6	18.6	<1.0	3	
PRAIRIE_AUK_BH108	06/05/2020 00:00	Fair	14	6.00m 19mm SPIE	8.86	2.20	6.66	-4.4	5.20	1027	0.5	0.5	10.0	10.0	0.1	0.1	20.5	20.2	1.0	<1.0	
PRAIRIE_AUK_BH108	15/06/2020 15:17	Overcast	15	6.00m 19mm SPIE	8.86	1.14	7.72	0.2	-0.06	1016	0.1	0.1	2.0	2.0	0.4	0.4	19.4	19.4	<1.0	1.0	
PRAIRIE_AUK_BH108	30/06/2020 11:55	Overcast	15	6.00m 19mm SPIE	8.86	0.35	8.51	0.0	0.24	1002	<0.1	<0.1	<2.0	<2.0	0.1	0.1	20.6	20.6	<1.0	<1.0	
PRAIRIE_AUK_BH108	06/05/2020 00:00	Fair	14	14.00m 50mm SP	8.86	5.00	3.86	-7.1	-5.74	1027	0.5	0.5	10.0	10.0	0.1	0.1	20.1	20.1	1.0	4.0	
				See	attached Ca	libration C	ertificate f	or Model No	o. and any	other deta	ils. SP =	Standpi	pe - SPIE	= Stand	pipe Piez	ometer.	(P) = Pea	ak - (S) =	Steady - ([	D) = Decline.	
Contract Title :-  Prairie Site Ground Investigation Works  Date of Issue :-  Page No. :-										Cli					South 1	outh Tees Development (			Corporat	ion	AEG Contract No :- 4251
Date of Issue :- Page No. :- 2 of 3								Chec	Checked By :-						oroved	Ву :-				Certificate No. :- MON/4251/2	

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### **GAS MONITORING RESULTS**

Monitoring Point	Date and Time	Weather	Temperature °C	Depth and Type of Well	Ground Level (mAOD)	Water Depth (mBGL)	Reduced Water Level (mAOD)	Flow Range (l/hr)	Diff Pressure (mbar)	ATM Pressure Range (mbar)	Methane	۸/۸ %	Methane % LEL		Carbon	^/^ %	Oxygen % v/v		Hydrogen Sulphide (ppm)	Carbon Monoxide (ppm)	Remarks
			🋎		Ō	\$	Rec	L.	Ö	R AT	(P)	(S)	(P)	(S)	(P)	(S)	(D)	(S)	_	_	
PRAIRIE_AUK_BH109	06/05/2020 00:00	Fair	14	11.80m 50mm SP	12.09	5.44	6.65	-1.3	-1.92	1027	0.4	0.4	8.0	8.0	0.6	0.2	19.9	19.9	1.0	1.0	
PRAIRIE_AUK_BH109	15/06/2020 13:04	Overcast	15	11.80m 50mm SP	12.09	5.97	6.12	0.1	0.02	1015	0.1	0.1	2.0	2.0	1.7	1.7	18.4	18.4	<1.0	1.0	
PRAIRIE_AUK_BH109	30/06/2020 13:29	Overcast	15	11.80m 50mm SP	12.09	6.72	5.37	0.4	4.79	1002	0.5	0.5	10.0	10.0	4.0	4.0	15.4	15.4	<1.0	10	
PRAIRIE_AUK_BH110	06/05/2020 00:00	Fair	14	20.80m 50mm SP	7.80	4.00	3.80	-0.8	-2.25	1028	0.5	0.5	10.0	10.0	0.1	0.1	20.4	20.4	1.0	3.0	
PRAIRIE_AUK_BH110	15/06/2020 12:23	Overcast	15	20.80m 50mm SP	7.80	3.84	3.96	0.1	-0.07	1016	0.1	0.1	2.0	2.0	0.2	0.2	11.9	11.9	<0.1	32.0	
PRAIRIE_AUK_BH110	30/06/2020 09:46	Overcast	15	20.80m 50mm SP	7.80	3.87	3.93	0.1	-0.21	1001	0.1	0.1	2.0	2.0	0.4	0.4	5.5	5.5	<1.0	13	
				See a	attached Ca	libration C	ertificate fo	or Model N	o. and any	other deta	ils. SP =				oipe Piez	ometer.	(P) = Pea	ak - (S) =	Steady - (E	D) = Decline	
Contract Title :-  Prairie Site Ground Investigation Works												C	Client :-		South Tees Development Corpor			Corporat	ion	AEG Contract No :- 4251	
Date o	Date of Issue :-  16/07/2020  Page No. :-  3 of 3								Ched	Checked By:-					Approved By :-						Certificate No. :-  MON/4251/3

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

IN-SITU WATER QUALITY PARAMETER MONITORING RESULTS							
Date of Test:	02/07	/2020	Operator:	A. Masterman			
Weather Condition (inc temperature) :				Overcast/Showers (11°C)			
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (µs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
PRAIRIE_AUK_ BH105	10:13:00	7.78	11.23	1394.10	-198.80	4.11	1.23
	10:16:00	7.71	11.21	1462.20	-197.00	2.53	1.29
	10:19:00	7.43	11.23	1598.80	-185.50	1.89	1.41
	10:22:00	7.37	11.27	1623.20	-179.50	1.80	1.43
PRAIRIE_AUK_ BH107	11:44:00	6.93	12.00	2177.60	9.10	6.26	1.88
	11:47:00	6.94	12.02	2178.60	12.10	7.05	1.88
	11:50:00	6.94	12.17	2188.90	16.60	9.01	1.88
	11:53:00	6.92	12.07	2184.30	-1.50	5.44	1.89
	11:56:00	6.91	11.78	2168.00	-29.50	3.70	1.89
	11:59:00	6.91	11.75	2167.00	-40.30	2.99	1.89
	12:02:00	6.90	11.81	2172.30	-56.30	3.23	1.89
	12:05:00	6.89	11.63	2162.50	-71.50	2.24	1.89
	12:08:00	6.89	11.56	2166.20	-78.90	2.12	1.89
PRAIRIE_AUK_ BH108 (Deep)	09:08:00	7.69	11.23	2645.00	-156.90	4.52	2.34
	09:11:00	7.17	11.26	2935.30	-141.70	3.36	2.59
	09:14:00	6.96	11.28	2971.80	-125.70	2.15	2.62
	09:17:00	6.92	11.29	2979.60	-110.20	2.11	2.62
	09:20:00	6.90	11.28	2984.50	-103.30	1.77	2.63
PRAIRIE_AUK_ BH108 (Shallow)	09:33:00	7.49	11.64	2398.40	-174.90	20.18	2.09
	09:36:00	7.39	11.63	2400.00	-182.20	16.98	2.10
	09:39:00	7.38	11.64	2402.90	-181.80	17.37	2.10
PRAIRIE_AUK_ BH109	13:22:00	6.53	12.15	5418.60	-103.40	8.04	4.69
	13:25:00	6.53	11.67	5378.40	-114.70	5.25	4.69
	13:28:00	6.53	11.52	5344.30	-113.00	4.76	4.68
	13:31:00	6.54	11.45	5312.60	-110.50	4.12	4.66
Remarks :	PRAIRIE_AUK_BH108 (Shallow) - Testing undertaken in container (not in-line)						
Contract Title:  Prairie Site Ground Investigation Works				Client:			
Checked By:				South Tees Development Corporation  Approved By:			
	onomod by.			другочей Бу.			
	Date Issued: 16/07/2020		Page No. : 1 of 1	Approved By:  AEG Contract No.:  4251			

# **CERTIFICATION** OF CALIBRATION







Certificate Number: G506065\_2/22573

Date Of Calibration: 21-Feb-2019

Issued by: QED Environmental Systems Ltd.

**Customer:** 

**Lombard North Central Plc** 

Royal Bank of Scotland The Gemini Building 24-25 St Andrew Square

Edinburgh EH2 1AF UNITED KINGDOM

Description:

Gas Analyser

Model:

GA5000

Serial Number: G506065

## **UKAS Accredited results:**

Methane (CH <sub>4</sub> )										
Certified Gas (%)	Uncertainty (%)									
5.0	4.8	0.41								
15.0	14.8	0.64								
49.9	49.3	0.94								

Carbon Dioxide (CO <sub>2</sub> )										
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)								
5.0	4.9	0.43								
15.0	14.8	0.70								
50.1	50.1	1.1								

Oxygen (O₂)											
Certified Gas (%)	Instrument Reading (%)	Uncertainty (%)									
21.0	21.1	0.31									

All concentrations are molar.

CH₄, CO₂ readings recorded at :

33.1 °C ± 2.5 °C

O2 readings recorded at:

22.8 °C ± 2.5 °C

Barometric Pressure:

1013 mbar ± 4 mbar

Method of Test: The analyser is calibrated in a temperature controlled chamber using a series of reference gases, in compliance with procedure LP004.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 101 IGC Instance: N/A

Page 1 of 2 | LPO15GIUKAS-2.4

www.qedenv.com +44 (0) 333 800 0088

sales@qedenv.co.uk

# **CERTIFICATION** OF CALIBRATION







Certificate Number: G506065 2/22573

Date Of Calibration: 21-Feb-2019

Issued by: QED Environmental Systems Ltd.

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Calibrations marked 'Non-UKAS Accredited results' on this certificate have been included for completeness.

## Non-UKAS accredited results after adjustment:

	Barometer (mbar)
Reference	Instrument Reading
1013	1013

Additional Gas Cells												
Gas	Certified Gas (ppm)	Instrument Reading (ppm)										
CO	497	507										
H₂S	257	257										

Inte	ernal Flow
Applied (I/hr)	Instrument Reading (I/hr)
5	5.2
10	10.3

Date of Issue: 25-Feb-2019

Approved by Signatory

Dawn Hemings

Laboratory Inspection

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

Calibration Instance: 101 IGC Instance: N/A

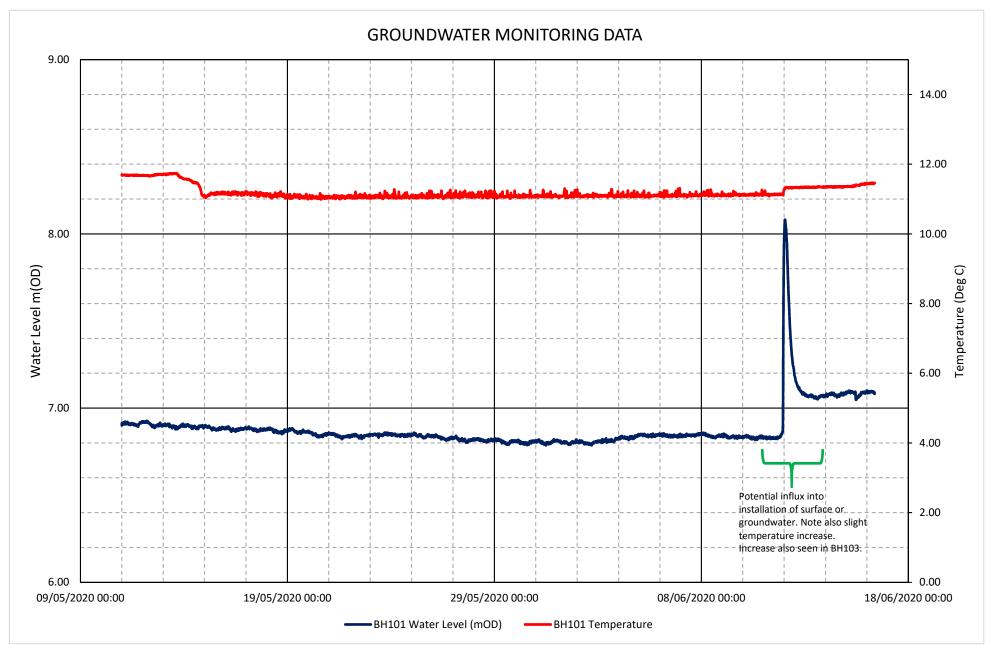
Page 2 of 2 | LPO15GIUKAS-2.4

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**Continuous Groundwater/Tidal Monitoring Results** 

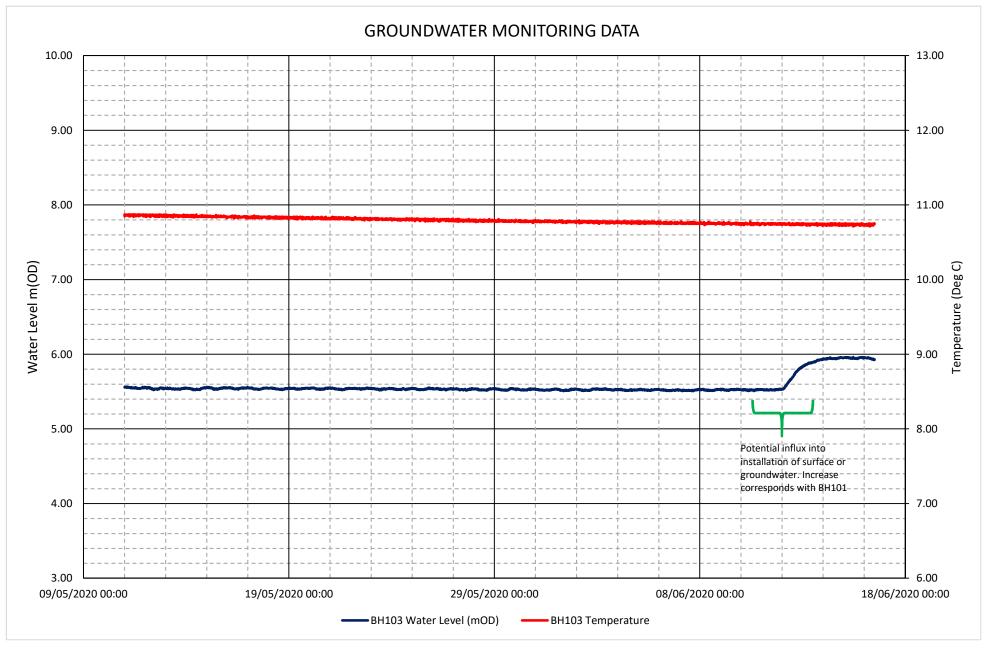




Title: Prairie Site Ground Investigation Works

Contract No: 4251

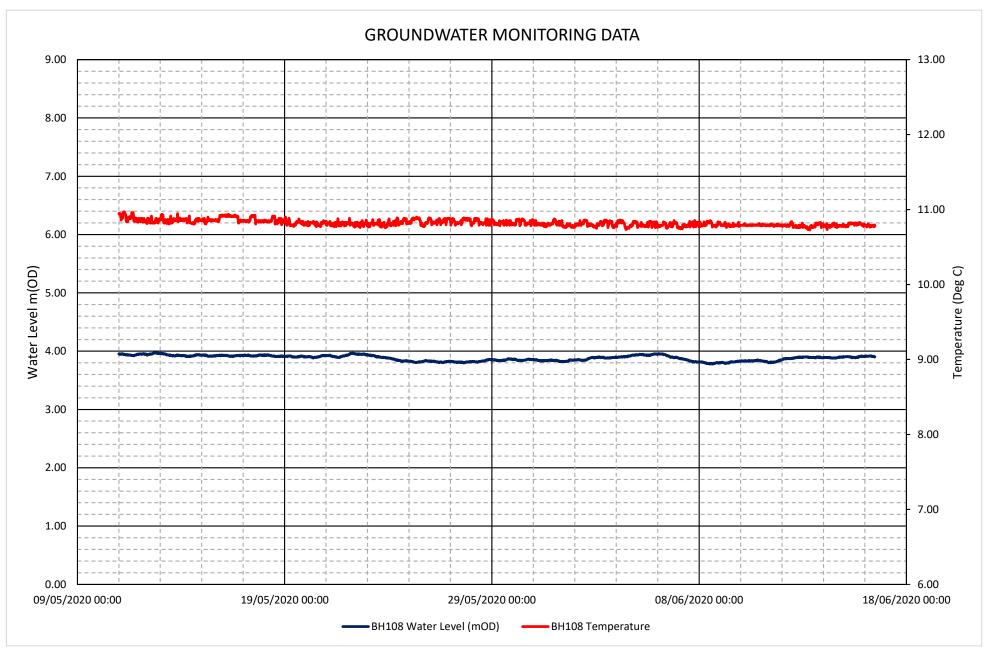
Client: South Tees Development Corporation



Title: Prairie Site Ground Investigation Works

Contract No: 4251

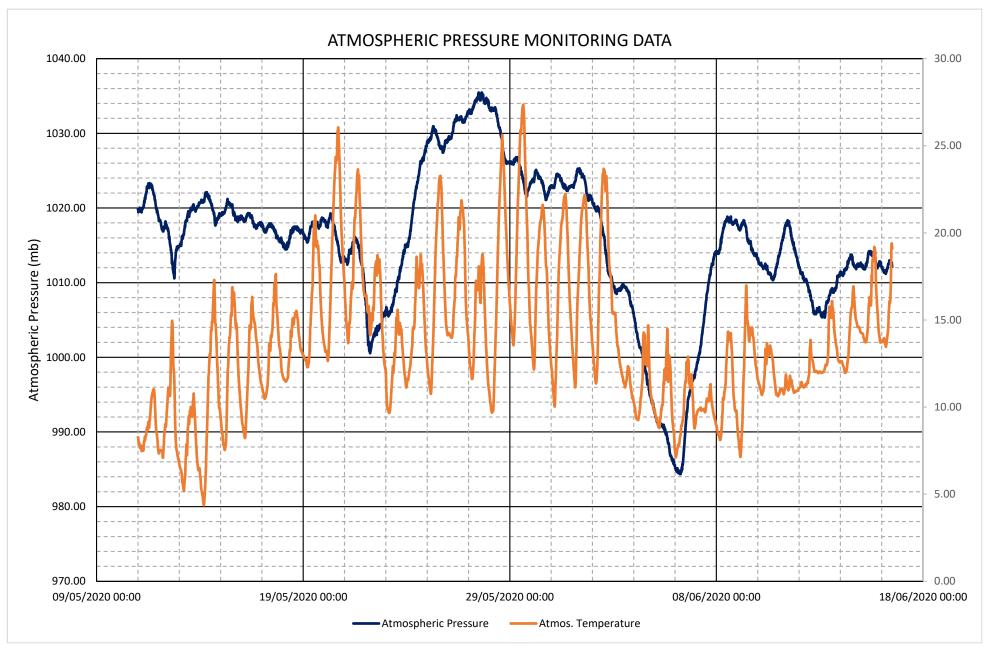
Client: South Tees Development Corporation



Title: Prairie Site Ground Investigation Works

Contract No: 4251

Client: South Tees Development Corporation



Title: Prairie Site Ground Investigation Works

Contract No: 4251

Client: South Tees Development Corporation

In-situ Test Report Certificate



## **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 3874700 Fax: 0191 3874710 Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01254 503 200 Fax: 01254 662 590



## **IN-SITU TESTING REPORT CERTIFICATE**



Contract Title: Prairie Site Ground Investigation Works AEG Reference: 4251

Client Address: South Tees Development Corporation

For and an habilit of Alliad Exploration & Coatachnica Limited

I certify that *In-situ* testing was carried out on the above contract in accordance with techniques outlined in BS 1377: 1990: Part 9 or other appropriate standards as quoted, and the following results, given on the attached enclosures, were obtained.

The tests carried out are indicated in the attached table showing the enclosure number and the total number of pages.

FOI allu oli	behalf of Affied Exploration & Geolechnics L	Imitea			
	Nick Vater (Managing Director)				
	Kevin Warriner (HSE & Quality Director)				
Signed		_	Date: 01 July	2020	

Tests marked not UKAS accredited in this certificate are not included in the UKAS accreditation schedule for our laboratory. Any opinions and interpretations expressed herein are outside the scope of the laboratory's UKAS accreditation

In-situ Testing report Certificate Page 1 of 2

# **IN-SITU TESTING REPORT CERTIFICATE**

# **ENCLOSURES**

Enclosure Number	Description	UKAS Accredited	Reference	No. of Pages
0	Test Report Certificate	N/A	·	2
1	Standard Penetration Test Results (SPT)	Yes	BS 1377 Part 9 1990	15
2	Hand Shear Vane Test Results	No		7
3	Photo-Ionisation Detector Test Results	No		7
4	In-situ Water Quality Parameter Test Results	No	\$	4
5	Hydraulic Conductivity: Slug Test Results	No	-	
- ,	Density by Core Cutter Method	Yes	BS 1377 Part 9 1990	-
-	Determination of the Vane Shear Strength (Down the Hole)	Yes	BS 1377 Part 9 1990	-
_	Shallow Pad (skip) Load Test Results	No	BS 1377 Part 9 1990	-
,	Determination of the California Bearing Ratio	Yes	BS 1377 Part 9 1990	-
-	Plate Loading Test Results	No	BS 1377 Part 9 1990	
_	Apparent Resistivity of Soil	No	BS 1377 Part 9 1990	-
-	Redox Potential of Soil	No	BS 1377 Part 9 1990	-
-	Determination of the Soil Infiltration Rate for Soakaway Design	No	BRE Digest 365:1991	-

**Standard Penetration Test Results** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head office: Unit 25 Stells Gill Industrial Estate. Pelton Felt, Chester-le-Street, Co. Dunham, DH2 2RG Head office: Unit 25 Stells Gill Industrial Estate. Pelton Felt, Chester-le-Street, Co. Dunham, DH2 2RG Head office: Unit 25 Stells Gill Industrial Estate. Pelton Felt, Chester-le-Street, Co. Dunham, DH2 2RG List 19772 735 300 Fax; 01772 735 999 STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005)

	Remarks														UKAS TESTING 1367
	<u>с</u>												ratory Hole.	No :- 51	<b>L</b>
əuo	Shoe or Cone		w	w	w	w	ဟ	ဟ	w	w	w	ဟ	ach Explo	AEG Contract No :- 4251	No.:- SPT/4251/1
e	SPT'N' Value (Cort.) N <sub>®</sub>		ω	12	15		•	1	47			5	elative to e	AEG C	Certificate No. :- SPT/₄
e	SPT'N' Valu		5	17	1 2 2 2				55			20	ig e		Certific
Mo	Pen (mm)/Blow		23.08	17.65	16.67	2.85	2.85	2.45	5.45	0.25	0.20	15.00	ched grapl	_	· [ ] [
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OTT.	od Length Co C <sub>R</sub>	1	0.76	0.84	0.98	1.00	1.00	1.00	1.00	1.00	1.00	0.74	presented	South Tees Development Corporation	
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	пэЧ	mm	75	75	75	09	09	20	75	,		75	ed and co	й	
RIVE	swola	No.	3	5	2	28	22	30	12			5	ncorrecte	Client :-	
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SEATING DRIVE	Blows	Š	т	. С	<b>е</b>	10	16	20	10			ю	on and co	gation	1 of 5
SEATII	Pen	E E	75	75	75	75	75	75	75			75	nformatic	nvestiį	_
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	Pen	E	75	75	75	75	75	75	75	20		75	ate for ad	Site Gr	Page No.
"∃∘	Energy Rati	%	51	51	51	. 15	51	51	15	51	. 5	51	n certifica	Prairie Site Ground Investigation Works	
ef.	A Hammer To	is	АТН09	АТН09	АТНОЭ	АТН09	АТН09	АТН09	АТН09	АТНОЭ	АТН09	АТН09	o calibratio	Δ.	
ч	Виәү род	E	4.00	6.00	9.50	12.50	14.00	15.50	17.00	18.00	18.40	3.50	Please refer to calibration certificate for additional information and corresponding Exploratory		:- 01/07/2020
	qəU nətsW (gnissO)	ε	Dry (3.80)	Dry (5.80)	Dry (9.30)	Dry (12.30)	Dry (13.80)	11.36 (15.30)	12.06 (16.80)	10.47 (17.80)	11.02 (18.20)	Dry (3.30)	NOTE: Ple	J.	sue :- 01/0
(leve	Test Dept	Ε	4.00 (4.64)	6.00 (2.64)	9.50 (-0.86)	12.50 (-3.86)	14.00 (-5.36)	15.50 (-6.86)	17.00 (-8.36)	18.00 (-9.36)	18.40 (-9.76)	3.50 (4.18)		Contract Title	Date of Issue :-
,	Exploratory Hole Mo.		PRAIRIE_AUK_BH101	PRAIRIE_AUK_BH103		3 <b>4</b>									

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 26 Stella Gill rollastral Estate, Petron Felt, Chester-Le-Street, Co. Durham, DH2 2RG Regional Office: Unit 20 Usin State Petron Felt, Chester-Le-Street, Co. Durham, DH2 2RG Int. 01712 735 300 Fax: 01712 735 300 STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476–3: 2005)

	Remarks														UKAS UKAS TESTING 1367
əuog	Shoe or C	S/C	S	ဟ	v	Ø	Ø	Ø	v	S	Ø	S	ecord for sampling details. Uncorrected and corrected SPTN values are presented on the attached graphical plot relative to each Exploratory Hole.	AEG Contract No :- 4251	251/2
	ωN (Corr.) N <sub>®</sub>	0)							to each E	3 Contr	No.:- SPT/4251/2				
Э	SPT'N' Valu		15	30	89			24	31			ω	t relative	AEG	Certificate No. :- SPT/
ə	SPT'N' Valui		21	37	80		1	32	38	1		13	phical plc		Certi
WC	Pen (mm)/Blo		14.29	8.11	3.75	5.00	1.30	9.38	8.33	2.70	2.25	23.08	ached gra	c.	
orr.	Dergy Ratio C C <sub>E</sub>	3	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	on the att	rporatic	
סור.	Sod Length Co	1	0.82	0.94	1.00	1.00	1.00	0.88	1.00	1.00	1.00	0.76	presented	South Tees Development Corporation	
	awola IstoT	No.	21	37	80	100	100	32	36	100	100	13	lues are I	velopn	
,	neq lstoT	шш	300	300	300	200	130	300	300	270	225	300	SPTN' va	ses De	Approved By :-
	swola	ON	ø	7	20			10	0	56		4	rrected S	uth Te	Appr
	Pen	mm	75	75	75			75	75	45		75	d and co	SS	
SIVE	Blows	ON	2	10	18	34	1	8	თ	31	64	ю	correcte	Client :-	1
TEST DRIVE	Pen	mm	75	75	75	20		75	75	75	75	. 22	etails. Ur	Ö	
	swola	No.	5	8	18	41	53	8	თ	24	34	3	mpling d		
	Pen	mm	75	75	75	75	55	92	75	75	75	22	rd for sa		(ed By:-
-	swol8	ON	2	80	24	25	47	9	8	19	23	ю			Checked
	Pen	mm	75	75	75	75	75	75	75	75	75	. 92	oratory F		Ö
	swola lstoT	o N	7	6	23	25	48	10	13	26	30	ß	ding Exp		
щ	Total Pen	mm	150	150	150	150	150	150	150	150	150	150	rrespon	Works	
SEATING DRIVE	Blows	o N	, 4	. 29	17	91	56	2	7	18	20	т	on and co	gation	of 5
SEATII	Pen	m m	75	75	75	75	75	75	75	75	75	75	nformatic	nvestiç	2
	Blows	o N	ю	4	9	σ	22	S	9	80	10	7	ditional ii	l puno	o S
	Pen	E	75	75	75	75	75	75	75	75	75	75	te for ad	Site Gr	Page No.
™∃ o	Energy Rati	%	51	51	51	51	51	51	51	51	51	5	n certifica	Prairie Site Ground Investigation Works	
tef.	PT Hammer F	IS	АТН09	АТН09	АТН09	АТНОЭ	АТН09	АТН09	АТН09	АТН09	АТН09	АТНОЭ	calibratio		
ч	Rod Leng	E	5.50	8.50	11.50	13.00	13.50	7.00	10.00	12.00	13.00	4.00	Please refer to calibration certificate for additional information and corresponding Exploratory Hole		:- 01/07/2020
	qed nateW (gnizsD)	٤	Dry (5.30)	Dry (8.30)	Dry (11.30)	Dry (12.80)	Dry (13.30)	Dry (6.80)	Dry (9.80)	Dry (11.80)	Dry (12.80)	Dry (3.80)	NOTE: Plea	.e.	e:- 01/07
	Test Depi (Reduced Le	٤	5.50 (2.18)	8.50 (-0.82)	11.50 (-3.82)	13.00 (-5.32)	13.50 (-5.82)	7.00 (1.70)	10.00	12.00 (-3.30)	13.00 (-4.30)	4.00 (4.26)		Contract Title	Date of Issue
, A	Exploratory Hole No.		PRAIRIE_AUK_BH103	PRAIRIE_AUK_BH103	PRAIRIE_AUK_BH103	PRAIRIE_AUK_BH103	PRAIRIE_AUK_BH103	PRAIRIE_AUK_BH104	PRAIRIE_AUK_BH104	PRAIRIE_AUK_BH104	PRAIRIE_AUK_BH104	PRAIRIE_AUK_BH105		1	

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head office: Unit 25 Stella Gall Industrial Estate Petion Felt, Chestro-te-Street, Co. Durham, DHZ 2R9. Tel: 0191 387 4710 Regional Office: Unit 20 Usus Description of the Conference of t

	Remarks												/N		UKAS TESTING 1367
	ΩŽ												atory Hole.	No :- 51	8
əuo	Shoe or C	S/C	ဟ	S	တ	S	S	S	တ	S	Ø	S	ach Explor	ontract No 4251	No.:- SPT/4251/3
ə	SPT'N' Valu (Corr.) N <sub>®</sub>		41	1.			20	44	-	11	12		lative to ea	AEG Contract No :- 4251	Certificate No. :- SPT/4
Э	SPT'N' Value		19		- T	-	27	52	i i	17	17		ical plot re		Certific
wo	wol8\(mm)/Blow		15.79	1.85	0.70	0.55	11.11	5.77	0.40	17.65	17.65	0.40	ched graph	_	
יסור.	nergy Ratio C C <sub>E</sub>	3	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	on the atta	poration	
٥١١.	Rod Length Con		98.0	96.0	1.00	1.00	0.88	1.00	1.00	92.0	0.86	96.0	presented	South Tees Development Corporation	
	ewol8 lstoT	No.	19	100	100	100	27	52	100	17	17	100	ues are	легори	.i.
	Total Pen	mm	300	185	70	55	300	300	04	300	300	40	PTN' val	es Dev	Approved By :-
	swola	No.	9	- y			თ	12	7 81	2	Ŋ	2 9	rected S	uth Te	Appre
	Pen	mm	75			* :	75	75		75	75		d and co	So	
SIVE	swola	O	2	26				12		2	co.		correcte	Client :-	
TEST DRIVE	Pen	mm	22	35		* 1	75	75		75	75		etails. Ur	Ö	
	Blows	No.	4	38			9	12		4	4		mpling de		
	Pen	mm	75	75			75	75		75	75		rd for sai		By
	swola	o O	4	36	100	100	Ŋ	91	100	ю	ო	100	tole reco		Checked By :-
	Pen	E	75	75	02	55	75	75	40	75	75	40	oratory F		ပ်
	swola lstoT	o O V	7	35	90	30	10	15	20	5	ø	90	ling Expl		
ш	Total Pen	E	150	150	90	20	150	150	75	150	150	110	rrespond	Works	
SEATING DRIVE	swola	Š.	4	23	, .		5	10		ო.	ю	25	n and co	ation	3 of 5
SEATIN	Pen	E E	75	75		A I	75	75		75	75	35	formatio	vestig	т П
	swola	o. No	т	12	90	90	ις	υ	20	0	е	25	ditional in	l pund	 9
10	Pen	m m	75	75	99	20	75	75	75	75	75	75	e for add	ite Gro	Page No. ∵
<sup>™</sup> ∃ 0	Energy Rati	%	51	51	51	51	51	51	51	5	51	. 15	n certificat	Prairie Site Ground Investigation Works	
.ìə	PT Hammer F	S	АТН09	ATH09	АТН09	АТН09	АТН09	ATH09	АТНОЭ	АТНОЭ	АТНО9	АТНОЭ	o calibratio	<u> </u>	
цı́	Rod Leng	E	6.50	9.50	11.00	11.20	7.00	10.00	10.50	4.00	6.50	9.00	NOTE. Please refer to calibration certificate for additional information and corresponding Exploratory Hole record for sampling details. Uncorrected and corrected and corrected some presented on the attached graphical plot relative to each Exploratory Hole.		:- 01/07/2020
	Jed Nater Del gnissO)	E	Dry (6.30)	4.32 (9.30)	7.36 (10.80)	7.89 (11.00)	Dry (6.80)	Dry (9.80)	Dry (10.30)	1.63 (3.80)	Dry (6.30)	Dry (7.80)	NOTE: Ple	:-	ue :- 01/0
	Test Dep Lacuced L	٤	6.50 (1.76)	9.50 (-1.24)	11.00 (-2.74)	11.20 (-2.94)	7.00	10.00	10.50	4.00 (6.16)	6.50	9.00 (1.16)		Contract Title :-	Date of Issue :-
٨	≖xplorator Lole No.	l	PRAIRIE_AUK_BH105	PRAIRIE_AUK_BH105	PRAIRIE_AUK_BH105	PRAIRIE_AUK_BH105	PRAIRIE_AUK_BH106	PRAIRIE_AUK_BH106	PRAIRIE_AUK_BH106	PRAIRIE_AUK_BH107	PRAIRIE_AUK_BH107	PRAIRIE_AUK_BH107			

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head office: Unit 25 Stella coll industrial Estate, Petion Felt, Chester-de-Street, Co. Durham, DH2 2RG Indicated and Office and Wharf, Blackburn, BB1 5BL STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005)

		Remarks														UKAS TESTING 1367
			0											NOTE: Please refer to calibration certificate for additional information and corresponding Exploratory Hole record for sampling details. Uncorrected and corrected and corrected for additional information and corresponding Exploratory Hole record for sampling details.	AEG Contract No :- 4251	51/4
		Shoe or Cone		Ø	Ø	S	S	σ	w	S	S	w	S	each Ex	Sontra	No.:- SPT/4251/4
	Э	SPT'N' Value <sup>®</sup> M (Corr.)		ω	34	57	i	1	თ	4		'	10	relative to	AEG	Certificate No. :- SPT/₄
	Э	SPT'N' Value			49	92		ı,	15	21	1		13	hical plot		Certifi
	·MC	Pen (mm)/Blow			6.12	3.95	0.55	0.40	20.00	14.29	1.10	0.45	23.08	iched grap	_	
	:סור.	Energy Ratio Corr. C <sub>E</sub>			0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	on the atta	rporatio	
	סור.	Rod Length Corr.			0.82	0.88	0.94	96.0	0.68	0.76	0.84	0.86	98.0	presented	South Tees Development Corporation	
	1	swola lstoT	No.	13	49	76	100	100	15	21	100	100	13	lues are	velopn	3y :-
		Total Pen	mm	300	300	300	55	40	300	300	110	45	300	SPT'N' va	es De	Approved By :-
,		swol8	Š.	4	18	21			2	7			4	rrected S	outh Te	Appr
2000		Pen	mm	75	75	75	*		75	75			75	d and co	So	
	SIVE	swola	Š.	ю	14	23		* *	4	9			ю	correcte	Client :-	
22410-0.	TEST DRIVE	ьeп	тт	75	75	75			75	75			75	etails. Ur	Ö	
- 1		swol8 ·	No.	က	12	17			3	2	47		м	mpling d	4	
EIN 130		Pen	шш	75	75	92		4 5 g	75	75	35		75	rd for sa		By:-
		Blows	o O N	ო	S.	15	100	100	က	ю	53	100	ო	tole reco		Checked By :-
기		nəd	E	75	75	75	55	40	75	75	75	45	75	oratory F	87	ර්
		swola letoT	Š.	4	5	16	20	20	2	4	29	20	9	ing Expl		
	ш	Total Pen	mm	150	150	150	70	35	150	150	150	09	150	rrespond	Norks	
K 10 - 10	SEATING DRIVE	Blows	No.	က	ю	ω			м	2	20		, w	n and co	ation \	4 of 5
	SEATIN	Pen	шш	75	75	75			75	75	75		75	formation	ıvestig	4
	2	Blows	No.	-	7	ω	20	90	7	7	თ	20	m	itional in	ul pun	
	-	Pen	mm	75	75	75	70	35	75	75	75	09	75	e for add	te Gro	Page No. :-
	‴∃ o	Energy Rati	%	51	51	51	51	51	51	51	51	51	51	certificate	Prairie Site Ground Investigation Works	
	.ìə	A 19mmeH To	ds.	ATH09	ATH09	ATH09	ATH09	АТНОЭ	ATH09	АТНО9	ATH09	ATH09	ATH09	calibration	۵.	
	цμ	Rod Leng	٤	3.50	5.50	7.00	8.50	00.6	2.00	4.00	9.00	6.50	6.50	ase refer to		:- 01/07/2020
	dto (	pol nateW gnissO)	٤	Dry (3.30)	Dry (5.30)	Dry (6.80)	Dry (8.30)	Dry (8.80)	Dry (1.80)	Dry (3.80)	Dry (5.80)	Dry (6.30)	Dry (6.30)	NOTE: Ple	:.	ue :- 01/0
		qəd təəT dəoubəA)	E	3.50 (5.36)	5.50	7.00 (1.86)	8.50 (0.36)	9.00	2.00 (10.09)	4.00 (8.09)	6.00) (6.09)	6.50 (5.59)	6.50 (1.30)		Contract Title :-	Date of Issue :-
	Á	Explorator Hole No.	1	PRAIRIE_AUK_BH108	PRAIRIE_AUK_BH108	PRAIRIE_AUK_BH108	PRAIRIE_AUK_BH108	PRAIRIE_AUK_BH108	PRAIRIE_AUK_BH109	PRAIRIE_AUK_BH109	PRAIRIE_AUK_BH109	PRAIRIE_AUK_BH109	PRAIRIE_AUK_BH110		8 <b>€</b>	

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head office: Unit 25 Stells Cill Industrial Estate Petiton Felt. Chester-Les Durham, DP12 2PR Tel: 01712 735 300 Fax: 01712

	Remarks	8								
	· c · · · · · · · · · · · · · · · · · ·							scord for sampling details. Uncorrected and corrected SPTN' values are presented on the attached graphical plot relative to each Exploratory Hole.	No :- 51	
əuo	Shoe or C	S/C	S	S	S	ဟ	S	ach Explo	ontract No 4251	
Э	SPT'N' Valu «W (.noD)		49	83		ī		lative to e	AEG Contract No :- 4251	
Э	SPTN' Valu		59	86	2 . 2 <b>L</b> ,	1	. (6)	ical plot re		
MC	Pen (mm)/Blo		5.08	3.06	2.20	0.70	0.50	thed graph		
.one.	inergy Ratio C C <sub>E</sub>	-	0.85	0.85	0.85	0.85	0.85	on the attac	South Tees Development Corporation	
סוו.	Sod Length Co		0.98	1.00	1.00	1.00	1.00	presented o	ent Cor	
	swola lstoT	ON	26	86	100	100	100	les are	elopm	
	neq lstoT	mm N	300	300	220 1	70 1	50 1	TN' valu	ss Dev	1
	Swola	No.	34	41	- 5			ected SF	th Tee	
	ьen	mm ^	75	, 22	1 0			and corre	Sou	ľ
ш	Blows	No.	9	52	48			prrected a	<u> </u>	
TEST DRIVE	ьen	mm h	75	75	. 02		,	ils. Uncc	Client :-	
빝	Blows	No.	o	19	27			oling deta		
	ned	mm	75	75	75			for samp		
	Blows	No.	9	13	25	100	100	e record	*	
	nəd	mm	75	75	75	70	20	atory Hol		
	swol8 lstoT	ON	б	21	34	99	20	g Explora		
	ne9 lstoT	шш	150	150	150	55	35	sponding	orks	
DRIVE	swola	ON	9	12	19			nd corre	ion W	
SEATING DRIVE	na9	m m	75	75	75			mation a	estigat	
S	Blows	o O O	т	o	15	909	20	nal infor	nd Inve	
	Pen	mm	75	75	75	55	35	or additic	Grou	
∘ E"	Fnergy Rati	%	51	51	51	51	12	certificate f	Prairie Site Ground Investigation Works	
.ìef.	A nammeH T9	IS	ATH09	АТНО9	ATH09	АТНОЭ	АТНОЭ	calibration	Pr	
ųзі	Bod Leng	٤	9.50	12.50	14.00	15.00	15.50	se refer to		
	qeU nateW (gnizsO)	E	Dry (9.30)	Dry (12.30)	6.74 (13.80)	7.02 (14.80)	7.39 (15.30)	NOTE: Please refer to calibration certificate for additional information and corresponding Exploratory Hole re	 9	
	Pest Deption (Peption	E	9.50 (-1.70)	12.50 (-4.70)	14.00 (-6.20)	15.00 (-7.20)	15.50 (-7.70)		Contract Title :-	
, A	zyploratory Lole No.	1	PRAIRIE_AUK_BH110	PRAIRIE_AUK_BH110	PRAIRIE_AUK_BH110	PRAIRIE_AUK_BH110	PRAIRIE_AUK_BH110		S S	

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office:
Regional Office:
Re **Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH101 8 Depth (m) 10 12 14 16 18 10 100 Uncorrected 'N' Values 'N' Value Corrected 'N' Values Note: Graph does not display extrapolated SPT results (e.g. refusals). Contract Title :-Client :-

Contract Title :Prairie Site Ground Investigation Works

Client :South Tees Development Corporation



Certificate No :-SPT/4251/Graph/PRAIRIE\_AUK\_BH101

Operator :-

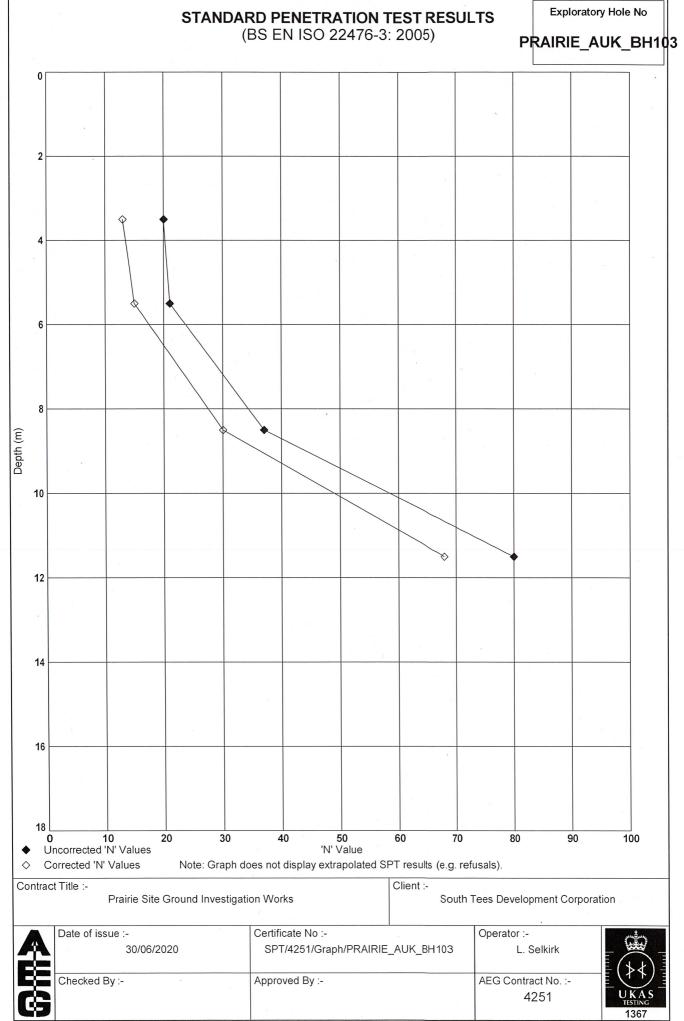
L. Selkirk

Approved By :- AEG Contract No. :-

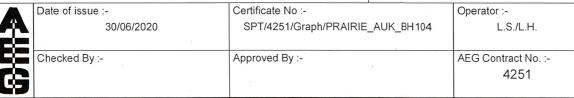


# **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

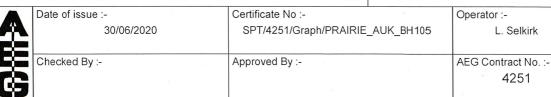
Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Regional Office: Unit 29 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999



**ALLIED EXPLORATION & GEOTECHNICS LIMITED Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH104 Depth (m) 10 12 14 16 100 'N' Value Uncorrected 'N' Values Note: Graph does not display extrapolated SPT results (e.g. refusals). Corrected 'N' Values Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator :-



**ALLIED EXPLORATION & GEOTECHNICS LIMITED Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH105 Depth (m) 10 12 14 16 18 100 'N' Value Uncorrected 'N' Values Note: Graph does not display extrapolated SPT results (e.g. refusals). Corrected 'N' Values Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator :-30/06/2020 SPT/4251/Graph/PRAIRIE\_AUK\_BH105 L. Selkirk



# **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

**Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH106 8 Depth (m) 10 12 14 16 18 100 Uncorrected 'N' Values 'N' Value Note: Graph does not display extrapolated SPT results (e.g. refusals). Corrected 'N' Values Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator:-30/06/2020 SPT/4251/Graph/PRAIRIE\_AUK\_BH106 L. Selkirk Checked By :-Approved By :-AEG Contract No. :-

# **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

**Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH107 8 Depth (m) 10 12 14 18 10 50 'N' Value 100 Uncorrected 'N' Values ♦ Corrected 'N' Values Note: Graph does not display extrapolated SPT results (e.g. refusals). Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator:-30/06/2020 SPT/4251/Graph/PRAIRIE\_AUK\_BH107 L. Selkirk Checked By :-Approved By :-AEG Contract No. :-

ALLIED EXPLORATION & GEOTECHNICS LIMITED

Head Office:
Regional Office:
Re **Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH108 Depth (m) 10 12 14 16 18 100 10 'N' Value Uncorrected 'N' Values Corrected 'N' Values Note: Graph does not display extrapolated SPT results (e.g. refusals). Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator:-30/06/2020 SPT/4251/Graph/PRAIRIE\_AUK\_BH108 L.S./L.H. Checked By :-Approved By :-AEG Contract No. :-

**ALLIED EXPLORATION & GEOTECHNICS LIMITED Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH109 Depth (m) 10 12 14 16 18 50 'N' Value 100 10 Uncorrected 'N' Values ♦ Corrected 'N' Values Note: Graph does not display extrapolated SPT results (e.g. refusals). Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator :-30/06/2020 SPT/4251/Graph/PRAIRIE\_AUK\_BH109 L.S./L.H.



# **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

**Exploratory Hole No** STANDARD PENETRATION TEST RESULTS (BS EN ISO 22476-3: 2005) PRAIRIE\_AUK\_BH110 Depth (m) 10 12 14 16 18 100 Uncorrected 'N' Values 'N' Value Note: Graph does not display extrapolated SPT results (e.g. refusals). Corrected 'N' Values Contract Title :-Client :-Prairie Site Ground Investigation Works South Tees Development Corporation Date of issue :-Certificate No :-Operator:-30/06/2020 SPT/4251/Graph/PRAIRIE\_AUK\_BH110 L.S./L.H. Approved By :-Checked By :-AEG Contract No. :-

# Allied Exploration & Geotechnics Ltd.

Unit 25 Stella Gill Industrial Esatate **Pelton Fell** Chester-le-Street DH<sub>2</sub> 2RG

# **SPT Hammer Energy Test Report**

in accordance with BSEN ISO 22476-3:2005

QUALITY CONTROL CHECKED 0 7 JAN 2020

SPT Hammer Ref: ATH09

Test Date:

23/05/2019

Report Date:

07/01/2020

File Name:

ATH09.spt

Test Operator:

BP

## **SPT Hammer Information**

Hammer Mass m (kg): 63.5 Falling Height h (mm): 760 SPT String Length L (m): 14.1

Comments / Location

## **Instrumented Rod Data**

Diameter  $d_r$  (mm):

54

Wall Thickness  $t_r$  (mm):

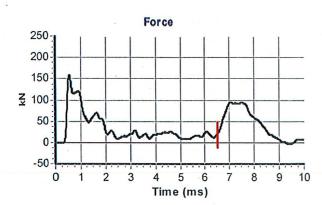
6.5

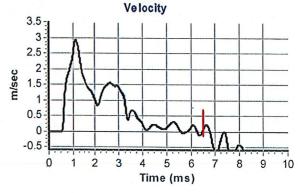
Assumed Modulus Ea (GPa): 208

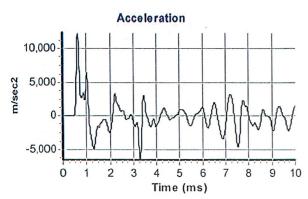
5991

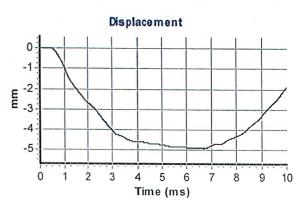
Accelerometer No.1: Accelerometer No.2:

5990









## Calculations

Area of Rod A (mm2):

970

Theoretical Energy  $E_{theor}$  (J):

473 241

Measured Energy  $E_{meas}$  (J):

Energy Ratio  $E_r$  (%):

51

Signed: Brian Proctor Title: Technician

The recommended calibration interval is 12 months

**Hand Shear Vane Test Results** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Petton Fell, Chester-de-Street, Co. Duman, DF2 2780 Tel: 0191-387-4710 Tegonal Office: Unit 20 Business Development Centre, Earlan Wharf Blackburn, BB1 58L Tel: 0191-387-3735 300 Fax: 01772735 999 HAND SHEAR VANE TEST RESULTS

Exploratory Hole No.	Date	Depth m	1st Result kPa	2nd Result kPa	3rd Result kPa	4th Result kPa	Average kPa	Rer	Remarks
PRAIRIE_AUK_TP101	01/04/2020	1.80	72 (32)	64	99	69	68 (32)		
PRAIRIE_AUK_TP101	01/04/2020	2.80	50 (22)	54	99	42	53 (22)		
PRAIRIE_AUK_TP101	01/04/2020	4.40	52 (18)	44	44	48	47 (18)		
PRAIRIE_AUK_TP104	01/04/2020	3.00	90 (22)	82	88	88	87 (22)	÷	
PRAIRIE_AUK_TP104	01/04/2020	3.90	90 (32)	84	06	80	86 (32)		
PRAIRIE_AUK_TP105	01/04/2020	2.00	60 (20)	09	09	09	(20)		
PRAIRIE_AUK_TP105	01/04/2020	3.00	64 (24)	09	89	62	64 (24)		
PRAIRIE_AUK_TP106	23/04/2020	2.00	72 (26)	72	89	89	70 (26)		
PRAIRIE_AUK_TP106	23/04/2020	3.00	130	130	130	130	130	Results in excess of 130kPa - exceeds the device measuring range.	the device measuring range.
PRAIRIE_AUK_TP107	06/04/2020	1.00	73 (34)	72	89	92	72 (34)		
PRAIRIE_AUK_TP107	06/04/2020	2.50	64 (34)	62	89	72	67 (34)		
PRAIRIE_AUK_TP109	21/04/2020	2.00	76 (40)	82	82	98	82 (40)		
					Resi	Residual results given in brackets.	ckets.		
AI	Contract Title :-	Pr	Prairie Site Ground Investigation Works	vestigation Works		Client :-		South Tees Development Corporation	AEG Contract No :- 4251
Date of Date of	Date of Issue :- 01/07/2020	120	Page No.∵	10f7	Checked By :-		Appro	Approved By :- Certifica	Certificate No. :- HSV/4251/1

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stells Gill Industrial Estate, Petion Fell, Chester-te-Street, Co. Durham, DF2 2787 Head office: Unit 25 Stells Gill Industrial Estate, Petion Fell, Chester-te-Street, Co. Durham, DF2 2787 Head office: Unit 25 Stells Gill Industrial Estate, Petion Fell, Chester-te-Street, Co. Durham, DF2 2787 HAND SHEAR VANE TEST RESULTS

	Remarks											seds the device measuring range.			AEG Contract No :- 4251	Certificate No. :- HSV/4251/2
									.*			Results in excess of 130kPa - exceeds the device measuring range.			South Tees Development Corporation	Approved By :- Ce
	Average kPa	103 (40)	59 (18)	49 (12)	70 (30)	101 (32)	76 (38)	56 (24)	54 (20)	25 (8)	100 (68)	130	68 (42)	kets.		Appro
	4th Result kPa	110	09	20	74	100	89	58	56	20	110	130	89	Residual results given in brackets.	Client :-	- · · · · · · · · · · · · · · · · · · ·
i	3rd Result kPa	06	56	52	80	112	88	28	09	30	86	130	89	Resi		Checked By :-
	2nd Result kPa	110	28	44	64	92	82	52	50	20	06	130	72		Prairie Site Ground Investigation Works	2 of 7
	1st Result kPa	100 (40)	60 (18)	50 (12)	60 (30)	100 (32)	68 (38)	54 (24)	50 (20)	30 (8)	100 (68)	130	64 (42)		ie Site Ground In	Page No.:-
	Depth m	3.00	3.00	4.00	2.50	3.00	2.50	3.10	3.50	2.00	2.00	3.00	1.60	,	Prair	20
	Date	21/04/2020	21/04/2020	21/04/2020	22/04/2020	22/04/2020	22/04/2020	22/04/2020	06/04/2020	08/04/2020	23/04/2020	23/04/2020	23/04/2020		Contract Title :-	Date of Issue :- 01/07/2020
	Exploratory Hole No.	PRAIRIE_AUK_TP109	PRAIRIE_AUK_TP110	PRAIRIE_AUK_TP110	PRAIRIE_AUK_TP111	PRAIRIE_AUK_TP111	PRAIRIE_AUK_TP112	PRAIRIE_AUK_TP112	PRAIRIE_AUK_TP113	PRAIRIE_AUK_TP115	PRAIRIE_AUK_TP116	PRAIRIE_AUK_TP116	PRAIRIE_AUK_TP118			Date of Date of

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chesterole-Street, co. Dumam, DH2 2RG Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chesterole-Street, co. Dumam, DH2 2RG Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chesterole-Street, co. Dumam, DH2 785 S00 Fax: 01772 735 999 HAND SHEAR VANE TEST RESULTS

Remarks														AEG Contract No :- 4251	Certificate No. :- HSV/4251/3
							,							South Tees Development Corporation	Approved By :-
Average kPa	82 (40)	47 (20)	65 (22)	62 (22)	74 (18)	32 (20)	70 (34)	45 (20)	59 (34)	41 (22)	71 (18)	69 (18)	ets.		Аррг
4th Result kPa	80	40	64	09	74	30	89	22	28	46	64	89	Residual results given in brackets.	Client :-	<i>y</i> :-
3rd Result kPa	82	54	99	99	92	32	72	90	09	44	64	89	Resi		Checked By :-
2nd Result kPa	98	40	09	62	92	34	89	62	09	30	08	64		Prairie Site Ground Investigation Works	3 of 7
1st Result kPa	80 (40)	52 (20)	70 (22)	60 (22)	70 (18)	32 (20)	70 (34)	46 (20)	56 (34)	42 (22)	76 (18)	76 (18)		e Site Ground In	Page No.:-
Depth m	2.60	2.50	3.00	1.50	2.50	2.20	2.50	2.80	3.80	1.00	1.50	1.50		Prair	50
Date	23/04/2020	22/04/2020	22/04/2020	20/04/2020	20/04/2020	08/04/2020	23/04/2020	02/04/2020	02/04/2020	22/04/2020	22/04/2020	20/04/2020	-	t Title :-	Issue :- 01/07/2020
Exploratory Hole No.	PRAIRIE_AUK_TP118	PRAIRIE_AUK_TP119	PRAIRIE_AUK_TP119	PRAIRIE_AUK_TP120A	PRAIRIE_AUK_TP120A	PRAIRIE_AUK_TP124	PRAIRIE_AUK_TP127A	PRAIRIE_AUK_TP131	PRAIRIE_AUK_TP131	PRAIRIE_AUK_TP133	PRAIRIE_AUK_TP133	PRAIRIE_AUK_TP134	-	Contract Title :-	Date of Issue :-

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head office: Unit 25 Stells Gill Industrial Estate, Pelicin Fell, Chesterule Street, Co. Dunham, DF2 2787 Tel: 0191 387 4710 Fell Chesterule Street, Co. Dunham, DF2 2787 Tel: 0191 387 4710 Feel Chesterule Street Co. Dunham, DF2 2787 3300 Fext 01772 735 3300 Fext 0

Remarks														AEG Contract No :- 4251	Certificate No. :- HSV/4251/4
														South Tees Development Corporation	Approved By :- Ce
Average kPa	84 (28)	70 (22)	70 (20)	40 (18)	67 (16)	48 (18)	47 (16)	77 (22)	77 (30)	64 (28)	97 (40)	97 (30)	fs.		Approv
4th Result kPa	82	72	74	42	64	46	46	92	92	89	96	96	Residual results given in brackets.	Client :-	3 <b>y</b> >-
3rd Result kPa	84	99	72	40	20	48	46	80	92	64	94	92	Res		Checked By :-
2nd Result kPa	98	72	62	40	99	42	50	02	72	62	100	106		Prairie Site Ground Investigation Works	4 of 7
1st Result kPa	84 (28)	66 (22)	70 (20)	38 (18)	66 (16)	56 (18)	44 (16)	80 (22)	82 (30)	62 (28)	98 (40)	92 (30)		ie Site Ground In	Page No.:-
Depth m	2.50	1.80	2.80	1.50	2.50	2.00	2.50	3.50	2.00	3.00	1.50	2.50		Prairi	50
Date	20/04/2020	15/04/2020	15/04/2020	15/04/2020	15/04/2020	15/04/2020	16/04/2020	16/04/2020	14/04/2020	14/04/2020	14/04/2020	14/04/2020		t Title :-	Issue :- 01/07/2020
Exploratory Hole No.	PRAIRIE_AUK_TP134	PRAIRIE_AUK_TP138	PRAIRIE_AUK_TP135	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP136	PRAIRIE_AUK_TP137	PRAIRIE_AUK_TP139B	PRAIRIE_AUK_TP139B	PRAIRIE_AUK_TP145	PRAIRIE_AUK_TP146	PRAIRIE_AUK_TP146¢	PRAIRIE_AUK_TP146C		Contract Title :-	Date of Issue

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Petron Fell, Chaster-le-Street, Co. Duman, DH2 2RG Tel: 01772 735 300 Fax; 01772 735 999 HAND SHEAR VANE TEST RESULTS

Exploratory Hole No.	Date	Depth	1st Result kPa	2nd Result kPa	3rd Result kPa	4th Result kPa	Average kPa	Remarks	
PRAIRIE_AUK_TP148	09/04/2020	2.00	50 (34)	09	09	20	55 (34)		
PRAIRIE_AUK_TP149	09/04/2020	2.80	78 (20)	20	54	70	68 (20)		•
PRAIRIE_AUK_TP156A	14/04/2020	1.00	106 (40)	102	100	86	102 (40)		
PRAIRIE_AUK_TP156A	14/04/2020	2.00	100 (38)	100	86	96	99 (38)		
PRAIRIE_AUK_TP158	17/04/2020	2.50	96 (41)	92	92	86	95 (41)		
PRAIRIE_AUK_TP159	16/04/2020	2.00						Not suitable for HSV testing - too friable.	
PRAIRIE_AUK_TP159	16/04/2020	2.50						Not suitable for HSV testing - too friable.	
PRAIRIE_AUK_TP162	14/04/2020	3.50						Not suitable for HSV testing - insufficiently cohesive.	
PRAIRIE_AUK_TP163	14/04/2020	2.00	58 (36)	42	62		54 (36)		
PRAIRIE_AUK_TP164	16/04/2020	2.50		,				Not suitable for HSV testing - too friable.	
PRAIRIE_AUK_TP164	16/04/2020	3.00	ς,					Not suitable for HSV testing - too friable.	
PRAIRIE_AUK_TP164	16/04/2020	3.50	. 1			c		Not suitable for HSV testing - too friable.	
					Res	Residual results given in brackets.	kets.		
AI	Contract Title :-	Pre	airie Site Ground Ir	Prairie Site Ground Investigation Works		Client :-		South Tees Development Corporation AEG Contract No 4	No :- 4251
Date of Date of	Date of Issue :- 01/07/2020	20	Page No. :-	5 of 7	Checked By :-	-: Á	Approv	Approved By :- Certificate No. :- HSV	HSV/4251/5

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Petion Fell, Chester-le-Scheet, Co. Durham, DH2 2787 Head office: Unit 25 Stella Gill Industrial Estate, Petion Fell, Chester-le-Scheet, Co. Durham, DH2 2787 Head office: Unit 25 Stella Gill Industrial Estate, Petion Fell, Chester-le-Scheet, Co. Durham, DH2 2787 Head office: Unit 25 Stella Gill Industrial Estate, Petion Fell, Chester-le-Scheet, Co. Durham, DH2 2787 Head office: Unit 25 Stella Gill Industrial Estate, Petion Fell, Chester-le-Scheet, Co. Durham, DH2 2787 HEAD SHEAR VANE TEST RESULTS

Exploratory Hole No.	Date	Depth m	1st Result kPa	2nd Result kPa	3rd Result kPa	4th Result kPa	Average kPa	Re	Remarks
PRAIRIE_AUK_TP168	09/04/2020	2.00	100 (42)	86	06	,	96 (42)		
PRAIRIE_AUK_TP173	09/04/2020	1.50						Not suitable for HSV testing - too friable.	<b>Q</b>
PRAIRIE_AUK_TP173	09/04/2020	2.50						Not suitable for HSV testing - too friable.	<b>Q</b>
PRAIRIE_AUK_TP175	06/04/2020	1.50	48 (20)	52	46		49 (20)		
PRAIRIE_AUK_TP175	06/04/2020	2.50		1				Not suitable for HSV testing - too friable.	o'
PRAIRIE_AUK_TP176	06/04/2020	3.50				1		Not suitable for HSV testing - too friable.	o di
PRAIRIE_AUK_TP176	07/04/2020	1.50	58 (36)	42	62		54 (36)		
PRAIRIE_AUK_TP178	06/04/2020	1.80	48 (26)	56	54		53 (26)		
PRAIRIE_AUK_TP178	06/04/2020	2.80	48 (26)	54	54		52 (26)		
PRAIRIE_AUK_TP178	06/04/2020	3.50				,		Not suitable for HSV testing - too friable.	ο̈
PRAIRIE_AUK_TP179	09/04/2020	2.00					-	Not suitable for HSV testing - too friable.	ė
PRAIRIE_AUK_TP181	09/04/2020	2.00	80 (42)	100	86		93 (42)		
-					Res	Residual results given in brackets.	ackets.		
Contrac	Contract Title :-	<u> </u>	Prairie Site Ground Investigation Works	nvestigation Works	2	Client :-		South Tees Development Corporation	AEG Contract No :- 4251
Date of	Date of Issue :- 01/07/2020	200	Page No. ∵	6 of 7	Checked By :-	3y :-	Appr	Approved By :- Certifin	Certificate No. :- HSV/4251/6

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Petron Fell, Chester-le-Street, Co. Durham, DH2 2780 Tel: 0191-387-4700 Fax: 0191-387-4710 Teglonal Office: Unit 20 Business Development Centre, Earlam Wharf Backburn, BB1 5BL Tel: 0191-375 300 Fax: 01772/735 999 HAND SHEAR VANE TEST RESULTS

Remarks	Not suitable for HSV testing - too friable.	Not suitable for HSV testing - too friable.					pment Corporation	d By :- Certificate No. :- HSV/4251/7
Average kPa			83 (42)	103 (46)	51 (20)	53 (18)		Approved By :-
4th Result kPa					52	50	Residual results given in brackets.	
3rd Result kPa			86	105	52	50	Resi	Checked By :-
2nd Result kPa			06	100	. 50	28	Prairie Site Ground Investigation Works	7 0 7
1st Result kPa			62 (42)	105 (46)	50 (20)	54 (18)	e Site Ground In	Page No. :-
Depth	1.50	2.50	1.50	2.50	1.50	2.50	Prairie	ç
Date	09/04/2020	09/04/2020	07/04/2020	07/04/2020	16/04/2020	16/04/2020	:. e:: ::	ssue :- 04/07/2020
Exploratory Hole No.	PRAIRIE_AUK_TP182	PRAIRIE_AUK_TP182	PRAIRIE_AUK_TP189	PRAIRIE_AUK_TP189	PRAIRIE_AUK_TP190A	PRAIRIE_AUK_TP190A	Contract Title :-	Date of Issue :-

**Photo-ionisation Detector Test Results** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella GIII Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

# PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_BH101	3.00	0.2	27/04/2020	
PRAIRIE_AUK_BH103	2.50	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_BH104	5.50	0.2	03/04/2020	
PRAIRIE_AUK_BH105	3.00	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_BH106	5.50	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_BH107	3.00	0.1	24/04/2020	
PRAIRIE_AUK_BH108	2.50	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_BH109	0.50	2.9	23/04/2020	
PRAIRIE_AUK_BH109	1.00	12.8	23/04/2020	
PRAIRIE_AUK_BH109	1.70	27.6	23/04/2020	
PRAIRIE_AUK_BH109	2.50	10.8	23/04/2020	
PRAIRIE_AUK_BH109	3.50	26.1	23/04/2020	
PRAIRIE_AUK_BH110	3.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP101	1.00	See Remarks	01/04/2020	<0.1ppm
PRAIRIE_AUK_TP101	2.20	See Remarks	01/04/2020	<0.1ppm
PRAIRIE_AUK_TP102	0.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP102	1.00	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP102	1.50	0.1	21/04/2020	
PRAIRIE_AUK_TP102	2.00	0.1	21/04/2020	
PRAIRIE_AUK_TP102	2.50	0.2	21/04/2020	
PRAIRIE_AUK_TP102	3.00	0.4	21/04/2020	
PRAIRIE_AUK_TP102	3.50	0.7	21/04/2020	
PRAIRIE_AUK_TP103	0.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP103	1.00	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP103	1.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP104	1.50	See Remarks	01/04/2020	<0.1ppm
PRAIRIE_AUK_TP105	1.20	See Remarks	01/04/2020	<0.1ppm
PRAIRIE_AUK_TP105	2.50	See Remarks	01/04/2020	<0.1ppm
PRAIRIE_AUK_TP106	0.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP106	1.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP106	1.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP106	2.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP106	3.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP107	0.80	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP107	1.80	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP107	2.80	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP108	1.00	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP108	2.00	1.7	06/04/2020	
PRAIRIE_AUK_TP108	3.00	0.6	06/04/2020	
PRAIRIE_AUK_TP109	0.50	See Remarks	21/04/2020	<0.1ppm

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



	Calibration Compliant :-	Date of Issue :-	Page No. :-
	YES	30/06/2020	1 of 6
	Checked By :-	Approved By :-	AEG Contract No.:-
1	*		4251
	. *		9

## PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_TP109	1.00	0.1	21/04/2020	
PRAIRIE_AUK_TP109	1.50	0.1	21/04/2020	
PRAIRIE_AUK_TP109	2.00	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP109	3.00	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP110	0.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP110	1.00	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP110	1.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP110	2.50	0.3	21/04/2020	
PRAIRIE_AUK_TP110	3.00	0.2	21/04/2020	
PRAIRIE_AUK_TP110	3.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP110	4.00	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP110	4.50	0.1	21/04/2020	
PRAIRIE_AUK_TP111	0.40	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP111	1.00	0.1	22/04/2020	
PRAIRIE_AUK_TP111	1.50	0.2	22/04/2020	
PRAIRIE_AUK_TP111	2.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP111	3.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP112	0.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP112	1.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP112	1.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP112	2.00	0.5	22/04/2020	
PRAIRIE_AUK_TP112	2.10	0.9	22/04/2020	
PRAIRIE_AUK_TP112	2.70	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP112	3.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP113	1.30	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP114	0.50	7.2	07/04/2020	
PRAIRIE_AUK_TP114	0.90	130.0	07/04/2020	
PRAIRIE_AUK_TP115	1.90	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP116	0.50	5.4	23/04/2020	
PRAIRIE_AUK_TP116	1.30	7.1	23/04/2020	
PRAIRIE_AUK_TP116	1.60	8.8	23/04/2020	
PRAIRIE_AUK_TP116	2.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP116	3.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP117	0.50	9.1	23/04/2020	
PRAIRIE_AUK_TP117	1.20	10.4	23/04/2020	
PRAIRIE_AUK_TP117	2.00	9.6	23/04/2020	
PRAIRIE_AUK_TP117	3.00	11.1	23/04/2020	
PRAIRIE_AUK_TP118	0.50	0.2	23/04/2020	
PRAIRIE_AUK_TP118	1.20	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP118	1.60	See Remarks	23/04/2020	<0.1ppm

Contract Title :-

Prairie Site Ground Investigation Works

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,			



### PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_TP118	2.20	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP119	0.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP119	1.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP119	1.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP119	2.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP119	2.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP120	0.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP120	1.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP120	1.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP120A	0.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP120A	1.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP120A	1.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP120A	2.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP121	1.50	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP122	1.00	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP123	0.60	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP124	1.50	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP124	2.50	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP126	2.60	0.2	17/04/2020	
PRAIRIE_AUK_TP127	0.30	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP127	1.40	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP127A	2.80	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP128	0.90	0.9	17/04/2020	
PRAIRIE_AUK_TP129	2.10	See Remarks	17/04/2020	<0.1ppm
PRAIRIE_AUK_TP130	1.00	1.0	17/04/2020	
PRAIRIE_AUK_TP131	1.80	See Remarks	02/04/2020	<0.1ppm
PRAIRIE_AUK_TP132	1.30	See Remarks	02/04/2020	<0.1ppm
PRAIRIE_AUK_TP133	0.20	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP133	0.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP133	0.90	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP133	1.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP134	0.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP134	1.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP134	1.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP134	2.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP134	2.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP135	1.30	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP136	0.80	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP136	2.90	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP137	1.30	See Remarks	15/04/2020	<0.1ppm

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# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Re

#### PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_TP138	1.20	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP139	1.10	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP139B	0.30	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP139B	3.30	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP140	0.50	0.8	23/04/2020	
PRAIRIE_AUK_TP140	1.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP140	1.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP141	0.50	0.8	23/04/2020	
PRAIRIE_AUK_TP141	1.00	0.6	23/04/2020	
PRAIRIE_AUK_TP141	2.00	1.6	23/04/2020	
PRAIRIE_AUK_TP142	0.50	0.8	23/04/2020	
PRAIRIE_AUK_TP142	1.00	3.9	23/04/2020	
PRAIRIE_AUK_TP142	1.50	3.0	23/04/2020	
PRAIRIE_AUK_TP143	0.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP143	1.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP144	0.50	0.8	24/04/2020	· · · · · · · · · · · · · · · · · · ·
PRAIRIE_AUK_TP144	1.00	1.5	24/04/2020	
PRAIRIE_AUK_TP145	1.60	0.2	14/04/2020	
PRAIRIE_AUK_TP146¢	1.30	0.2	14/04/2020	
PRAIRIE_AUK_TP146¢	2.50	See Remarks	14/04/2020	<0.1ppm
PRAIRIE_AUK_TP147	1.50	See Remarks	17/04/2020	<0.1ppm
PRAIRIE_AUK_TP148A	1.40	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP149	1.30	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP150	0.70	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP151	0.50	1.1	23/04/2020	*
PRAIRIE_AUK_TP151	1.00	0.8	23/04/2020	
PRAIRIE_AUK_TP151	1.50	0.9	23/04/2020	
PRAIRIE_AUK_TP151	2.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP151	2.50	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP151	3.00	See Remarks	23/04/2020	<0.1ppm
PRAIRIE_AUK_TP152	0.50	0.3	22/04/2020	
PRAIRIE_AUK_TP152	1.00	1.6	22/04/2020	
PRAIRIE_AUK_TP152	1.50	0.8	22/04/2020	
PRAIRIE_AUK_TP153	0.50	1.8	22/04/2020	
PRAIRIE_AUK_TP153	1.00	0.5	22/04/2020	
PRAIRIE_AUK_TP153	1.50	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP153	2.00	See Remarks	22/04/2020	<0.1ppm
PRAIRIE_AUK_TP154	0.50	1.1	21/04/2020	
PRAIRIE_AUK_TP154	1.00	0.2	21/04/2020	
PRAIRIE_AUK_TP154	1.50	See Remarks	21/04/2020	<0.1ppm

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Head Office: Regional Office Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2

Tel: 0191 387 4700 Fax: 0191 387 4710

#### PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_TP155	0.40	1.8	21/04/2020	
PRAIRIE_AUK_TP155	1.00	0.1	21/04/2020	
PRAIRIE_AUK_TP155	1.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP156A	0.30	See Remarks	14/04/2020	<0.1ppm
PRAIRIE_AUK_TP157	0.80	See Remarks	17/04/2020	<0.1ppm
PRAIRIE_AUK_TP158	1.30	See Remarks	17/04/2020	<0.1ppm
PRAIRIE_AUK_TP159	0.60	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP160	1.00	0.7	21/04/2020	
PRAIRIE_AUK_TP160	1.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP161	0.80	0.8	20/04/2020	
PRAIRIE_AUK_TP161	2.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP162	1.70	See Remarks	14/04/2020	<0.1ppm
PRAIRIE_AUK_TP163	1.20	4.5	14/04/2020	
PRAIRIE_AUK_TP163	1.90	2.1	14/04/2020	
PRAIRIE_AUK_TP164	0.70	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP164	1.30	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP165	1.00	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP165	3.30	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP166	0.50	0.2	20/04/2020	
PRAIRIE_AUK_TP166	1.00	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP167	2.50	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP168	0.05	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP169	1.50	See Remarks	15/04/2020	<0.1ppm
PRAIRIE_AUK_TP170	0.50	See Remarks	21/04/2020	<0.1ppm
PRAIRIE_AUK_TP170	1.00	17.5	21/04/2020	
PRAIRIE_AUK_TP170	1.50	1.1	21/04/2020	
PRAIRIE_AUK_TP171	0.50	1.4	20/04/2020	
PRAIRIE_AUK_TP171	1.00	1.3	20/04/2020	
PRAIRIE_AUK_TP171	1.50	See Remarks	20/04/2020	<0.1ppm
PRAIRIE_AUK_TP172	0.80	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP173	0.90	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP174	0.80	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP174	1.60	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP175	0.80	101.1	06/04/2020	
PRAIRIE_AUK_TP175	1.80	5.3	06/04/2020	
PRAIRIE_AUK_TP176	0.90	1.1	07/04/2020	/ /
PRAIRIE_AUK_TP177	0.60	1.1	07/04/2020	
PRAIRIE_AUK_TP177	1.90	See Remarks	07/04/2020	<0.1ppm
PRAIRIE_AUK_TP178	0.80	See Remarks	06/04/2020	<0.1ppm
PRAIRIE_AUK_TP179	1.40	3.8	09/04/2020	

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# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Bendonal Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, C. Durham, DH2 2RG Unit 27 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, C. Durham, DH2 2RG Tel: 1917 378 735 300 Fax: 01727 735 300 Tel: 10777 735 300 Fax: 01727 735 300

#### PHOTO-IONISATION DETECTOR

Exploratory Hole No.	Depth (m)	PID (ppm)	Date Tested	Remarks
PRAIRIE_AUK_TP179	2.00	2.1	09/04/2020	4
PRAIRIE_AUK_TP180	0.30	See Remarks	14/04/2020	<0.1ppm
PRAIRIE_AUK_TP181	0.60	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP181	2.50	See Remarks	09/04/2020	<0.1ppm
PRAIRIE_AUK_TP182	0.90	6.2	09/04/2020	
PRAIRIE_AUK_TP182	2.00	0.5	09/04/2020	
PRAIRIE_AUK_TP184	0.30	See Remarks	16/04/2020	<0.1ppm
PRAIRIE_AUK_TP185	4.30	See Remarks	08/04/2020	<0.1ppm
PRAIRIE_AUK_TP186	0.50	5.1	07/04/2020	
PRAIRIE_AUK_TP187	0.50	1.3	20/04/2020	
PRAIRIE_AUK_TP187	1.00	0.2	20/04/2020	
PRAIRIE_AUK_TP188	1.00	1.2	08/04/2020	
PRAIRIE_AUK_TP189	1.60	See Remarks	07/04/2020	<0.1ppm
PRAIRIE_AUK_TP189	3.00	See Remarks	07/04/2020	<0.1ppm
PRAIRIE_AUK_TP190A	1.10	See Remarks	16/04/2020	<0.1ppm

v	See attached Calibration Certificate for Model No. and any other details
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# Certificate of Calibration

Customer:	Allied Exploration & Geotechnics Ltd
	are a green and

Instrument: MiniRAE 2000

Job: Service, Test & Calibration

Serial number: 110-900192

Fleet Number: N/A

Certificate no: 900192 / 100519

Next calibration due date: 10 May 2020

Tested on: 10 May 2019

Calibrated for: Isobutylene

Applied Gas	<u>Cylinder</u>	<u>Initial Sensor</u>	<u>Final Sensor</u>	Accuracy
Concentration:	Reference:	<u>Reading</u>	<u>Reading</u>	Limits
Isobutylene: 100 ppm	AGG2641-3-10	95.0 ppm	100.0 ppm	± 2%

The Instrument has been calibrated after Re-Zeroing & Introducing Span Calibration Gas, using gas that is traceable to national standards and has been prepared in accordance with BS EN ISO6145-6:2008

Calibrati	on Engineer:	P Lonsdale		•	
			***************************************	 •••••••	 
Sign:	2/0	oa/sl	 	 	 

Quality Assessed by (Print): R.L. BANBRIDGE Sign: Duncoud

*In-situ* Water Quality Parameter Test Results



Head Office: Unit 25 Stella Gill Industrial Estate, Petton 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

Monitoring Point   Monitoring Point Point   Monitoring Point	Weather Co	05/05/	/2020	Operator:		D. Por	tsmouth	
Annitoring Point   Interest   I		ondition (inc temp	perature) :			Cool & Dry	*	
PRAIRIE_AUK_BH104	Monitoring Point		рН		Conductivity			Total Dissolve Solids (ppm)
Remarks:    BH104		15:30:00	8.10	15.10	811.29	309.30	49.79	0.65
### PRAIRIE_AUK_BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a balle ontead Title:    Prairie Site Ground Investigation Works   Prairie Site Site Prairie Site Ground Investigation Works   Prairie Site Site Prairie Site Ground Investigation Works   Prairie Site Site Prairie Site Prairie Site Site Prairie Site Prairie Site Site Prairie Site Site Prairie Site Prairie Site Prairie Site Prairie Site Prairi	PRAIRIE AUK	15:35:00	8.10	15.84	824.59	317.10	49.66	0.65
RAIRIE_AUK BH107  14:15:00  7.55  15.47  2039.40  294.80  77.94  14:20.00  7.55  16.68  2096.30  283.70  78.03  14:30.00  7.55  17.74  2143.70  284.70  78.44  12:00.00  8.78  14.49  548.17  189.80  27.56  12:35:00  8.77  14.60  520.31  204.30  16.03  12:40:00  8.77  14.23  540.24  108.20  19.16  12:50.00  8.73  15.08  559.75  221.60  28.07  12:50.00  8.73  15.45  562.00  231.60  30.30  12:55:00  8.73  15.53  561.84  230.40  28.78  13:00.00  8.72  15.66  559.15  226.70  22.54		-	<i>}</i> -	-	-	, · · · -	, <del>-</del>	, <u> </u>
RAIRIE_AUK_BH107  14:20:00 7.55 15:47 2039.40 282.30 77.48  14:30:00 7.55 16:68 2096.30 283.70 78.03  14:30:00 7.55 17.74 2143.70 284.70 78.44  12:00:00 8.78 14.49 548.17 189.80 27.56  12:35:00 8.77 14.60 520.31 204.30 16.03  12:40:00 8.75 15:08 559.75 221.60 28.07  12:45:00 8.73 15:45 562.00 231.60 30.30  12:55:00 8.73 15:53 561.84 230.40 28.78  13:00:00 8.72 15:66 559.15 226.70 22.54  Remarks: BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a balle centract Title:  Prairie Site Ground Investigation Works  Cheeved By  Cheeve		-	-	-	- N -	-	-	-
RAIRIE_AUK_BH109    14:25:00	* .	14:15:00	7.55	14.99	1989.10	294.80	77.94	1.60
### BH107   14:25:00	PRAIRIE AUK	14:20:00	7.55	15.47	2039.40	282.30	77.48	1.62
12:00:00		14:25:00	7.55	16.68	2096.30	283.70	78.03	1.62
12:35:00   8.77   14:60   520:31   204:30   16:03     12:40:00   8.77   14:23   540:24   108:20   19:16     12:45:00   8.75   15:08   559:75   221:60   28:07     12:50:00   8.73   15:45   562:00   231:60   30:30     12:55:00   8.73   15:53   561:84   230:40   28:78     13:00:00   8.72   15:66   559:15   226:70   22:54      Remarks : BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a balle ontract Title:    Prairie Site Ground Investigation Works   South Tees Development Corporation		14:30:00	7.55	17.74	2143.70	284.70	78.44	1.62
PRAIRIE_AUK_BH109		12:00:00	8.78	14.49	548.17	189.80	27.56	0.44
Remarks:    BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a balle contract Title:   Prairie Site Ground Investigation Works   South Tees Development Corporation   Approximate the contract of the contra		12:35:00	8.77	14.60	520.31	204.30	16.03	0.42
Remarks :   BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a balle ontract Title:   Client:   Prairie Site Ground Investigation Works   Prairie Site Ground Investigation Works   South Tees Development Corporation		12:40:00	8.77	14.23	540.24	108.20	19.16	0.44
Remarks:  BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a baile contract Title:  Prairie Site Ground Investigation Works  South Tees Development Corporation		12:45:00	8.75	15.08	559.75	221.60	28.07	0.45
Remarks:  BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a baile ontract Title:  Prairie Site Ground Investigation Works  Checked By:  Approved By		12:50:00	8.73	15.45	562.00	231.60	30.30	0.45
Remarks:  BH104 & BH107 - unable to sample via pump due to lack of head. Agreed with Arcadis to sample using a baile ontract Title:  Client:  Prairie Site Ground Investigation Works  South Tees Development Corporation		12:55:00	8.73	15.53	561.84	230.40	28.78	0.45
ontract Title:  Prairie Site Ground Investigation Works  Checked By:  Approved By:		13:00:00	8.72	15.66	559.15	226.70	22.54	0.44
ontract Title:  Prairie Site Ground Investigation Works  Checked By:  Approved By:								
Checked By:  Approved By:								
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Date Issued: Page No.: AEG Contract No.:	ontract Title:	airie Site Ground			Client:		· · · · · · · · · · · · · · · · · · ·	

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191387 4700 Fax: 0191387 4710
Regional Office: Unit 20. Business Development Centre Fanam Whatf, Blackburn, RB1 5RL, - Tel: 01777 735300 Fax: 01777 735399

	IIV-S	WATER	QUALITY PARA	AWIETER WONI		.15	
Date of Test:	06/05/2	2020	Operator:		D. Por	tsmouth	
Weather C	ondition (inc temp	erature) :			Cool/Warm & Dry		
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
	10:10:00	8.52	11.50	1849.80	279.10	46.97	1.62
PRAIRIE_AUK_	10:15:00	8.52	11.62	1854.30	276.40	43.39	1.62
BH101 (Shallow)	10:20:00	8.52	11.90	1863.30	280.80	46.55	1.62
		-				-	- ' ',
	09:40:00	8.31	11.29	1790.40	238.40	47.43	1.57
PRAIRIE_AUK_	09:45:00	8.47	11.20	1795.10	227.30	46.79	1.58
BH101 (Deep)	09:50:00	8.50	11.23	1799.70	233.70	46.34	1.59
	09:55:00	8.51	11.27	1802.10	242.40	46.59	1.59
PRAIRIE_AUK_ BH 106	08:35:00	9.54	11.22	641.13	124.20	32.09	0.56
	08:40:00	9.53	11.26	644.92	132.80	33.40	0.57
	08:45:00	9.52	11.47	648.52	139.40	34.61	0.57
	08:50:00	9.52	11.66	651.63	145.90	35.53	0.57
	13:05:00	7.53	11.51	1776.50	345.50	43.80	1.56
PRAIRIE_AUK_	13:10:00	7.56	11.48	1775.70	354.40	44.69	1.56
BH108 (Shallow)	13:15:00	7.57	11.48	1775.00	356.70	44.87	1.56
. 3	-		-	-	-	<u>-</u>	-
	13:05:00	7.53	11.51	1769.60	345.50	43.80	1.56
PRAIRIE_AUK_	13:10:00	7.56	11.48	1767.70	354.40	44.69	1.56
BH108 (Deep)	13:15:00	7.57	11.48	1766.50	356.70	44.87	1.56
pro v	· -		-		-	-	-
	11:10:00	8.08	11.61	2078.80	333.90	42.01	1.82
PRAIRIE_AUK_	11:15:00	8.12	11.47	2074.70	331.00	43.21	1.82
BH110	11:20:00	8.13	11.43	2075.40	332.10	43.90	1.82
	11:25:00	8.14	11.40	2074.40	337.30	44.55	1.82
			A STATE OF THE STA				
Remarks :				n/a	THE SOURCE STREET HOUSE		
Contract Title:	 rairie Site Ground I	nvestigation W	orks	Client:	South Tees Devel	opment Corporatio	n
	Checked By:	ç .		Approved By:			
Ğ	Date Issued:	/2020	Page No.:	AEG Contract No. :	4251		

Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191387 4700 Fax: 0191387 4710
Regional Office: Unit 20. Business Development Centre Fanam Wharf Blackburn BR1 5R1 . Tel: 01772 735 300 Fax: 01772 735 300

	IN-S	ITU WATER	QUALITY PARA	AMETER MONIT	TORING RESUL	TS		
Date of Test:	16/06/2	020	Operator:		A. Mas	sterman		
Weather Co	ondition (inc tempe	rature) :	•	Slightly overcast (15-18°C)				
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)	
	15:00:00	8.71	18.35	457.46	109.2	76.88	0.34	
	15:03:00	9.12	14.46	428.58	118.7	32.15	0.34	
PRAIRIE_AUK_	15:06:00	9.35	13.40	399.67	289.8	23.49	0.32	
BH 103	15:09:00	9.67	13.60	333.61	115.0	21.43	0.28	
	15:12:00	9.68	13.57	319.10	268.4	20.89	0.26	
	15:15:00	9.69	13.28	314.98	295.5	19.20	0.26	
Remarks :				Client:				
	airie Site Ground In	vestigation Wo	orks	Approved By:	South Tees Develo	ppment Corporation		
	/							
Ġ	Date Issued: 23/06/2	2020	Page No. :	AEG Contract No. :	4251		Ġ	

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	IN-	SITU WATER (	QUALITY PARA	METER MONIT	ORING RESUL	TS	
Date of Test:	17/06/	/2020	Operator:		A. Mas	sterman	
Weather C	ondition (inc temp	perature) :			Overcast (15-18°C	)	
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
	09:36:00	8.58	13.54	1563.90	145.4	34.98	1.30
PRAIRIE_AUK_ BH101	09:39:00	8.65	13.40	1573.00	225.2	29.66	1.31
(Deep)	09:42:00	8.69	13.50	1578.00	240.7	27.94	1.31
	09:45:00	8.70	13.62	1582.00	231.3	25.91	1.31
	10:38:00	8.48	13.13	1467.00	128.2	32.53	1.24
PRAIRIE_AUK_ BH101	10:41:00	8.84	12.92	1466.00	252.6	27.90	1.24
(Shallow)	10:44:00	8.84	12.88	1467.00	285.4	26.02	1.24
	10:47:00	8.85	12.90	1470.00	282.7	24.45	1.24
	12:57:00	8.05	13.36	1222.80	276.0	16.64	1.02
PRAIRIE_AUK_	13:00:00	8.07	13.22	1223.30	316.3	14.79	1.03
BH104	13:03:00	8.07	13.28	1233.60	317.5	14.21	1.03
	13:06:00	8.07	13.54	1239.60	306.7	14.34	1.03
	11:14:00	8.24	13.58	1104.90	361.00	43.11	0.92
PRAIRIE_AUK_	11:17:00	8.27	13.86	1109.30	370.40	42.08	0.92
BH105	11:20:00	8.29	14.06	1113.90	373.40	41.44	0.91
	11:23:00	8.29	14.22	1117.80	372.80	41.15	0.91
	13:47:00	9.20	15.77	1035.40	303.6	30.24	0.82
PRAIRIE_AUK_ BH106	13:50:00	9.20	15.94	1040.20	331.2	22.53	0.82
,	13:53:00	9.21	16.12	1044.60	341.5	20.67	0.82
	10:00:00	7.42	14.38	2306.60	330.8	64.44	1.88
PRAIRIE_AUK_ BH108	10:03:00	7.55	14.54	2309.00	347.9	60.04	1.88
(Deep)	10:06:00	7.59	14.67	2316.50	355.6	57.82	.1.88
	10:09:00	7.61	14.76	2321.30	358.0	56.77	1:88
							198
Remarks :							
Contract Title:	rairie Site Ground	Investigation Wor	rks	Client:	South Tees Develo	opment Corporatio	n
A	Checked By:			Approved By:			
CS	Date Issued: 23/06	/2020	Page No. :	AEG Contract No. :	4251		C3

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	IN-	SITU WATER	QUALITY PARA	METER MONIT	ORING RESUL	TS	
Date of Test:	18/06/	2020	Operator:		A. Mas	sterman	
Weather C	ondition (inc temp	erature) :	1 2				
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
	08:45:00	7.74	13.87	1704.00	278.00	38.43	1.41
PRAIRIE_AUK_	08:48:00	7.97	13.74	1710.00	314.20	35.71	1.42
BH108 (Shallow)	08:51:00	8.02	13.72	1711.90	307.70	33.61	1.42
	08:54:00	8.05	13.76	1713.70	306.30	34.54	1.42
	11:21:00	8.12	14.22	2931.00	246.30	42.36	2.41
PRAIRIE_AUK_ BH110	11:24:00	8.11	13.23	2920.00	292.20	41.66	2.45
	11:27:00	8.11	12.99	2915.00	308.20	40.96	2.46
						9	
Remarks :	(8)						
Contract Title:	rairie Site Ground I	nvestigation Wo	rks	Client:	South Tees Develo	opment Corporation	n ·
A	Checked By:	×		Approved By:			A
	Date Issued: 23/06	/2020	Page No. :	AEG Contract No. :	4251		

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D-t- (T		AND THE STREET OF STREET STREET, STREE	QUALITY PARA	THE RESIDENCE OF THE PERSON NAMED IN COLUMN ASSESSMENT				
Date of Test:	18/06		Operator:	A. Masterman				
Weather Co	ondition (inc temp	oerature) :			Cloudy (13-14°C)			
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)	
	12:36:00	12.89	12.49	4372.20	-103.90	37.05	3.74	
PRAIRIE_AUK_	12:39:00	12.94	12.72	4391.40	-101.20	32.12	3.73	
BH102	12:42:00	12.98	12.99	4416.70	-100.00	30.57	3.72	
	12:45:00	13.00	13.15	4431.30	-102.60	30.46	3.72	
	14:16:00	7.50	11.80	1703.90	280.20	7.95	1.48	
PRAIRIE_AUK_	14:19:00	7.40	11.61	1681.40	322.10	7.71	1.47	
BH 107	14:22:00	7.36	11.52	1667.10	349.10	7.40	1.46	
	14:25:00	7.34	11.42	1664.20	360.20	7.36	1.46	
	15:33:00	7.17	11.50	3392.80	340.40	35.08	2.99	
	15:36:00	7.33	11.89	3727.00	371.70	59.40	3.25	
PRAIRIE_AUK_ BH109	15:39:00	7.41	11.75	4058.00	380.20	75.67	2.47	
	15:42:00	7.78	12.32	3237.90	390.10	88.64	3.38	
	15:45:00	7.90	12.72	3948.80	364.20	89.69	2.74	
Remarks : ontract Title:	airie Site Ground	Investigation Wo	orks	Client:	South Tees Develo	opment Corporation	n	
A	Checked By:		,	Approved By:		7	A	
	Date Issued:		Page No. :	AEG Contract No. :		2 (a)		
CS I	23/06	/2020	4 of 4		4251		CS	

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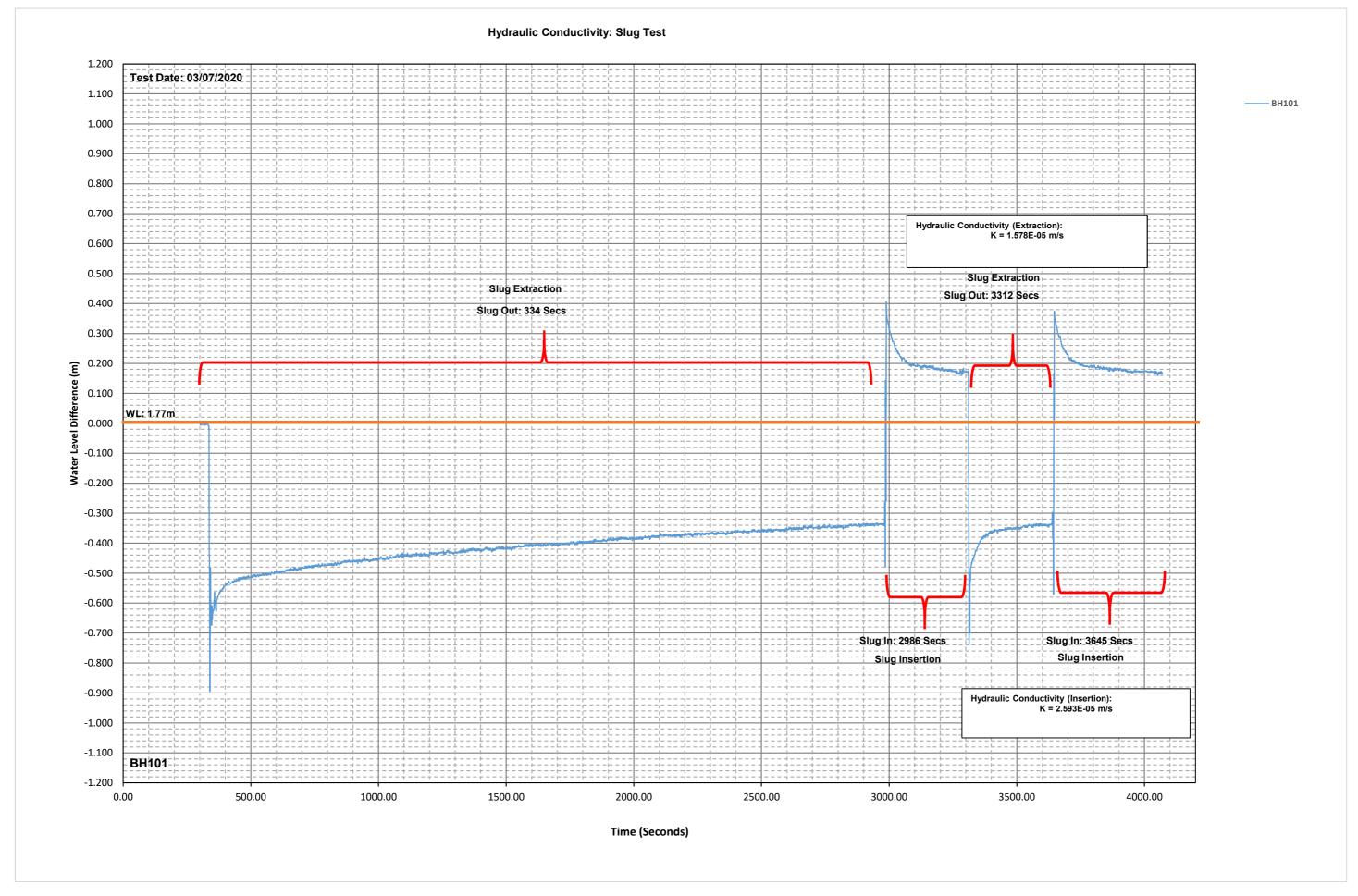
	IN-	SITU WATER	QUALITY PAR	AMETER MONI	TORING RESUL	.TS	
Date of Test:	30/06/	2020	Operator:		A. Ma	sterman	
Weather C	ondition (inc temp	erature) :			Overcast (17°C)		
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
	15:34:00	7.69	13.20	1229.00	50.10	7.74	1.01
PRAIRIE_AUK_	15:37:00	7.62	13.26	1120.00	52.60	7.46	0.93
BH104	15:40:00	7.62	13.57	1124.00	53.90	9.52	0.95
	-	-	-	-	-	-	-
Remarks :	PRAIRIE_AUK_BH	104 & PRAIRIE	_AUK_BH107 - una	ble to sample using using a bailer.	pump due to lack o	f head. Agreed with	Arcadis to sample
Contract Title:	airie Site Ground I	nvestigation W	orks	Client:	South Tees Develo	opment Corporatio	n
	Checked By:			Approved By:			<b>*</b>
	Date Issued:	2020	Page No. :	AEG Contract No. :	4251		Ğ

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	IN-	SITU WATER (	QUALITY PARA	AMETER MONIT	ORING RESUL	.TS	
Date of Test:	01/07	/2020	Operator:		A. Mas	sterman	
Weather C	Condition (inc tem	perature) :			Overcast (16°C)		
Monitoring Point	Time (hrs)	рН	Temp (°C)	Electrical Conductivity (Actual) (μs)	Redox Potential (mv)	Dissolved Oxygen (%)	Total Dissolved Solids (ppm)
	09:21:00	9.58	13.30	2352.00	-305.90	7.85	1.94
PRAIRIE_AUK_	09:24:00	8.80	12.02	1372.00	-296.30	1.64	1.24
BH101 (Deep)	09:27:00	8.66	11.85	1842.00	-294.00	1.24	1.60
	09:30:00	8.64	11.91	1834.00	-292.60	1.10	1.59
	09:35:00	9.60	12.32	1439.00	-306.00	2.24	1.27
PRAIRIE_AUK_ BH101	09:38:00	9.12	12.39	1583.00	-290.00	1.53	1.36
(Shallow)	09:41:00	9.04	12.19	1617.00	-286.00	1.53	1.39
	09:44:00	8.97	12.15	1647.00	-282.00	1.76	1.42
	08:44:00	12.79	13.02	4476.00	-419.30	1.62	3.78
PRAIRIE_AUK_	08:47:00	12.86	12.88	4509.00	-423.30	1.30	3.84
BH102	08:50:00	12.94	12.57	4622.00	-421.00	1.00	3.95
	-	-	-	-	-	-	-
PRAIRIE_AUK_	11:39:00	9.38	12.05	935.30	-212.00	2.13	0.80
	11:42:00	9.39	12.06	840.63	-203.00	1.64	0.72
BH103	11:45:00	9.40	12.14	830.17	-200.00	1.52	0.71
	11:48:00	9.39	12.10	813.60	-199.10	1.29	0.70
	15:31:00	8.98	12.22	886.70	-164.50	2.73	0.75
PRAIRIE_AUK_	15:34:00	9.35	12.08	1274.00	-229.00	2.22	1.10
BH106	15:37:00	9.41	12.00	1272.00	-242.90	1.69	1.10
	15:40:00	9.43	11.98	1272.60	-250.20	1.62	1.10
	10:29:00	7.62	12.70	4057.00	86.80	11.19	3.45
DDAIDIE ALIK	10:32:00	7.60	12.51	4045.00	129.50	9.43	3.45
PRAIRIE_AUK_ BH110	10:35:00	7.60	12.47	4045.00	169.00	8.49	3.45
	10:38:00	7.60	12.35	4026.00	190.90	7.72	3.46
	10:42:00	7.59	12.29	4022.00	205.20	7.31	3.46
Remarks :				n/a			
Contract Title:	airie Site Ground	Investigation Wor	ks	Client:	South Tees Develo	pment Corporatio	n
<b></b> ♠	Checked By:			Approved By:		- •	<b>A</b>
55	Date Issued:		Page No. :	AEG Contract No. :			
Œ	16/07	/2020	1 of 1		4251		Œ

**Hydraulic Conductivity: Slug Test Results** 

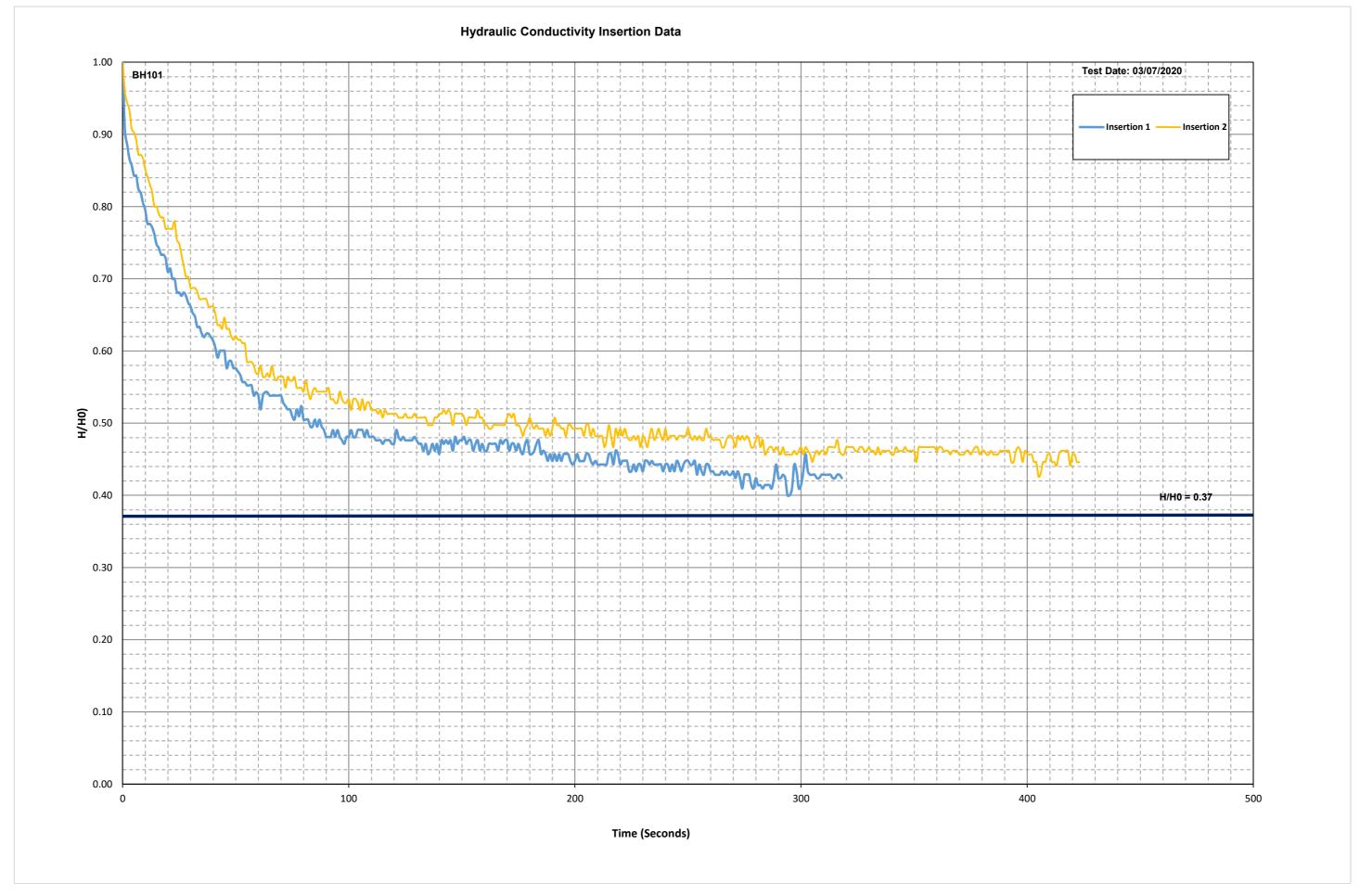




**Contract**: Prairie Site Ground Investigation Works **Contract No.**: 4251

**Date**: 29/07/2020 **Sheet**: 1 of 15

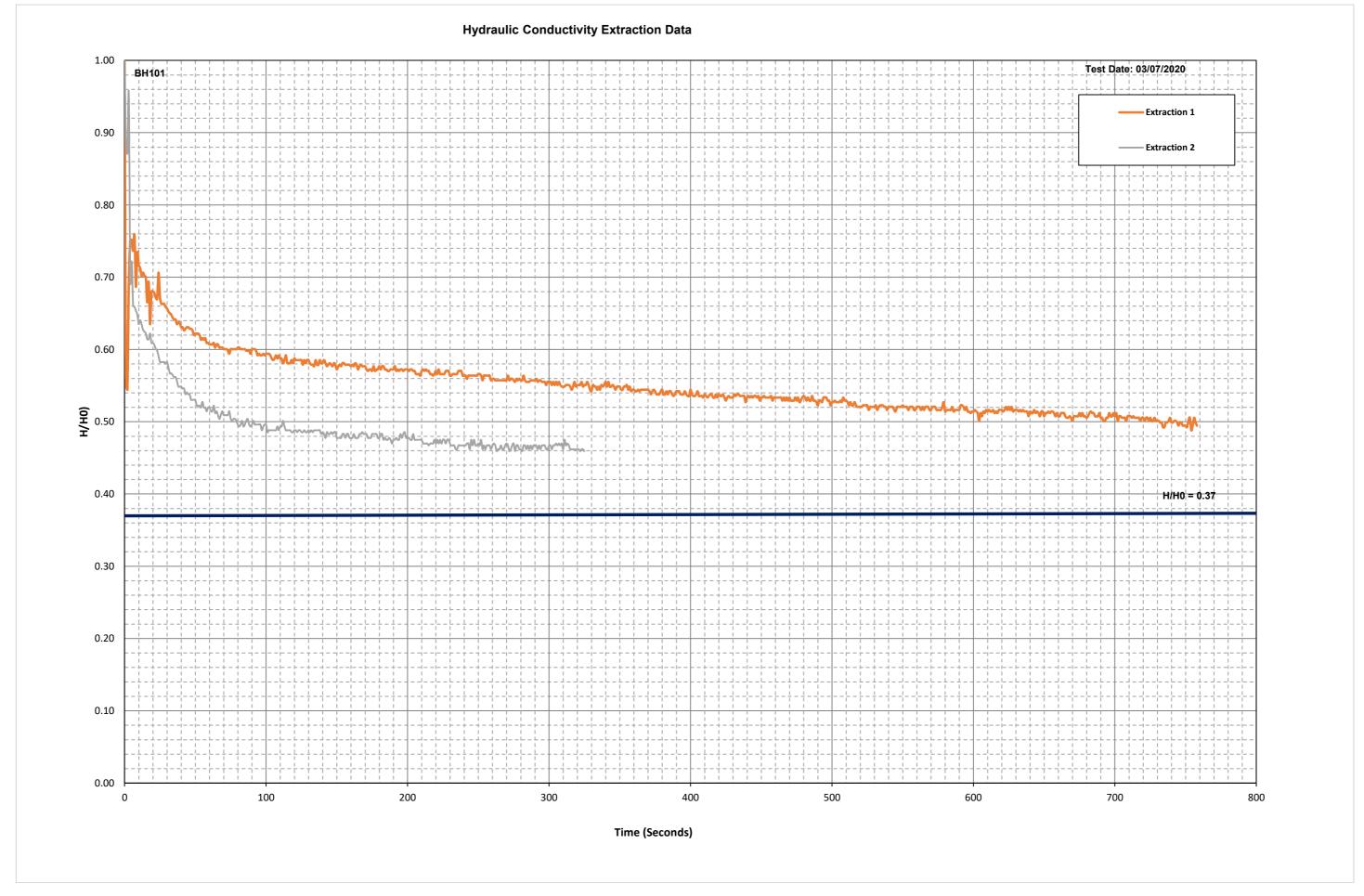
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works Contract No.: 4251 Date: 29/07/2020

Sheet: 2 of 15

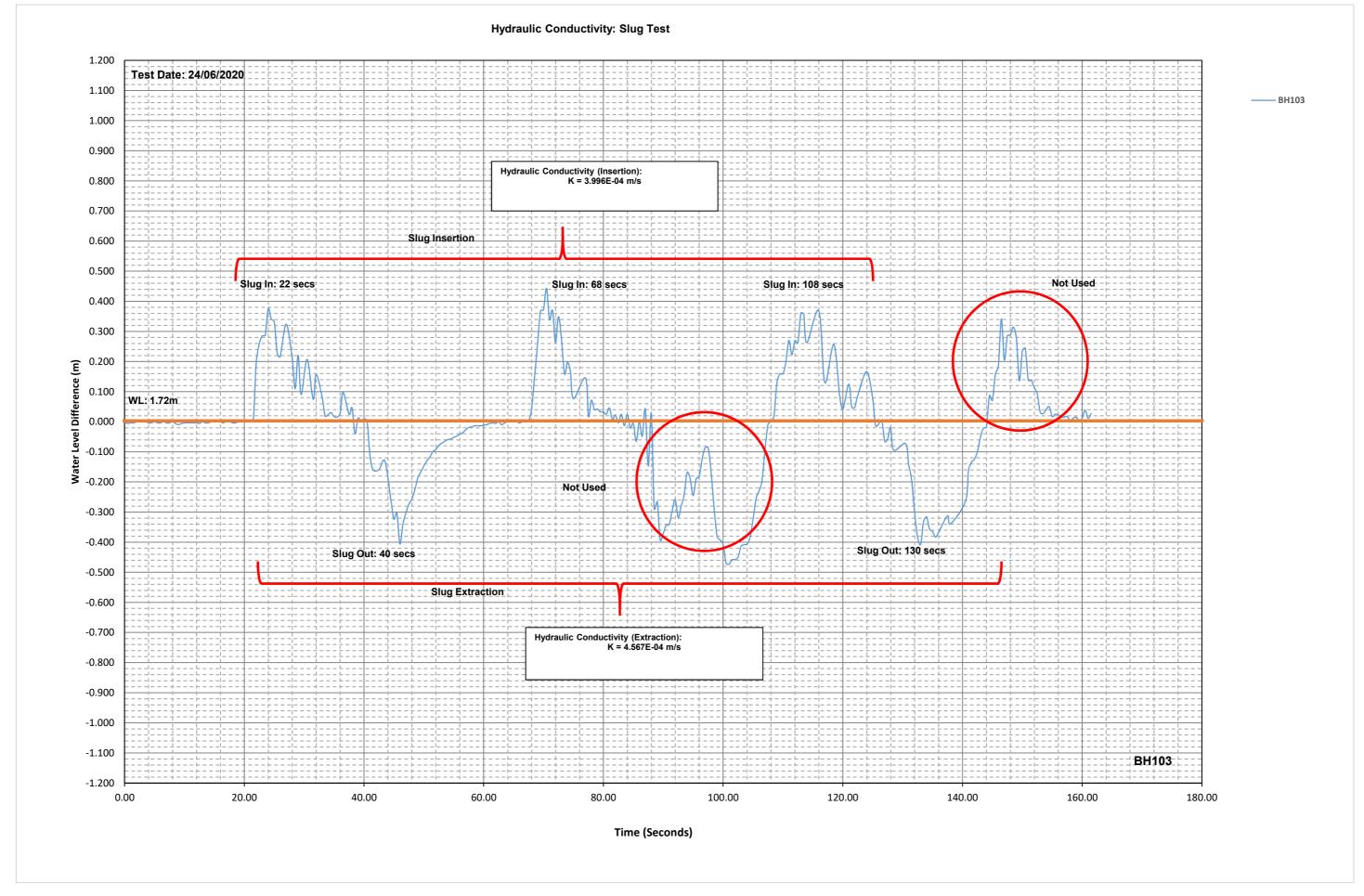
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works Contract No.: 4251 Date: 29/07/2020

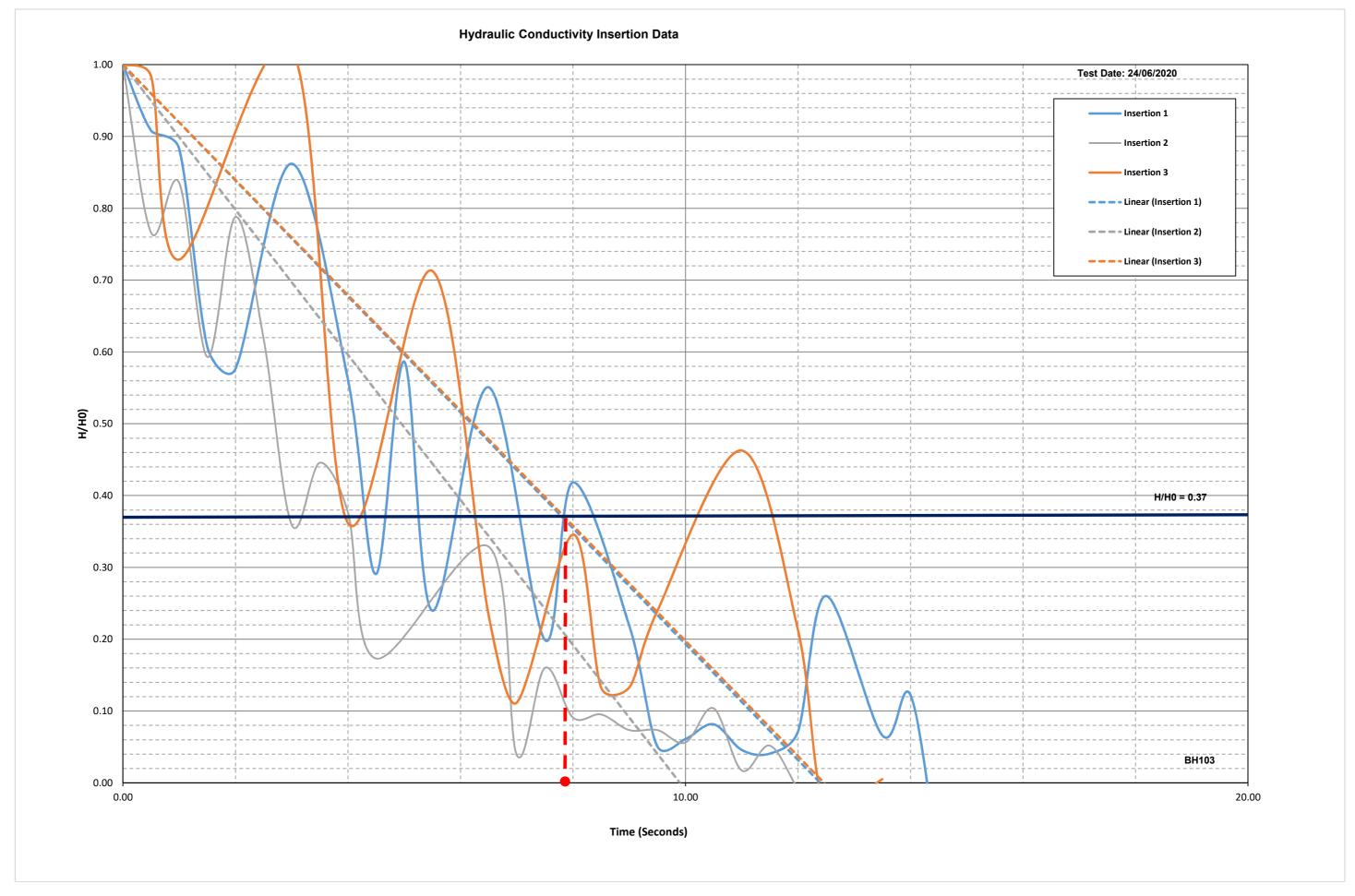
Date: 29/07/202 Sheet: 3 of 15

Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



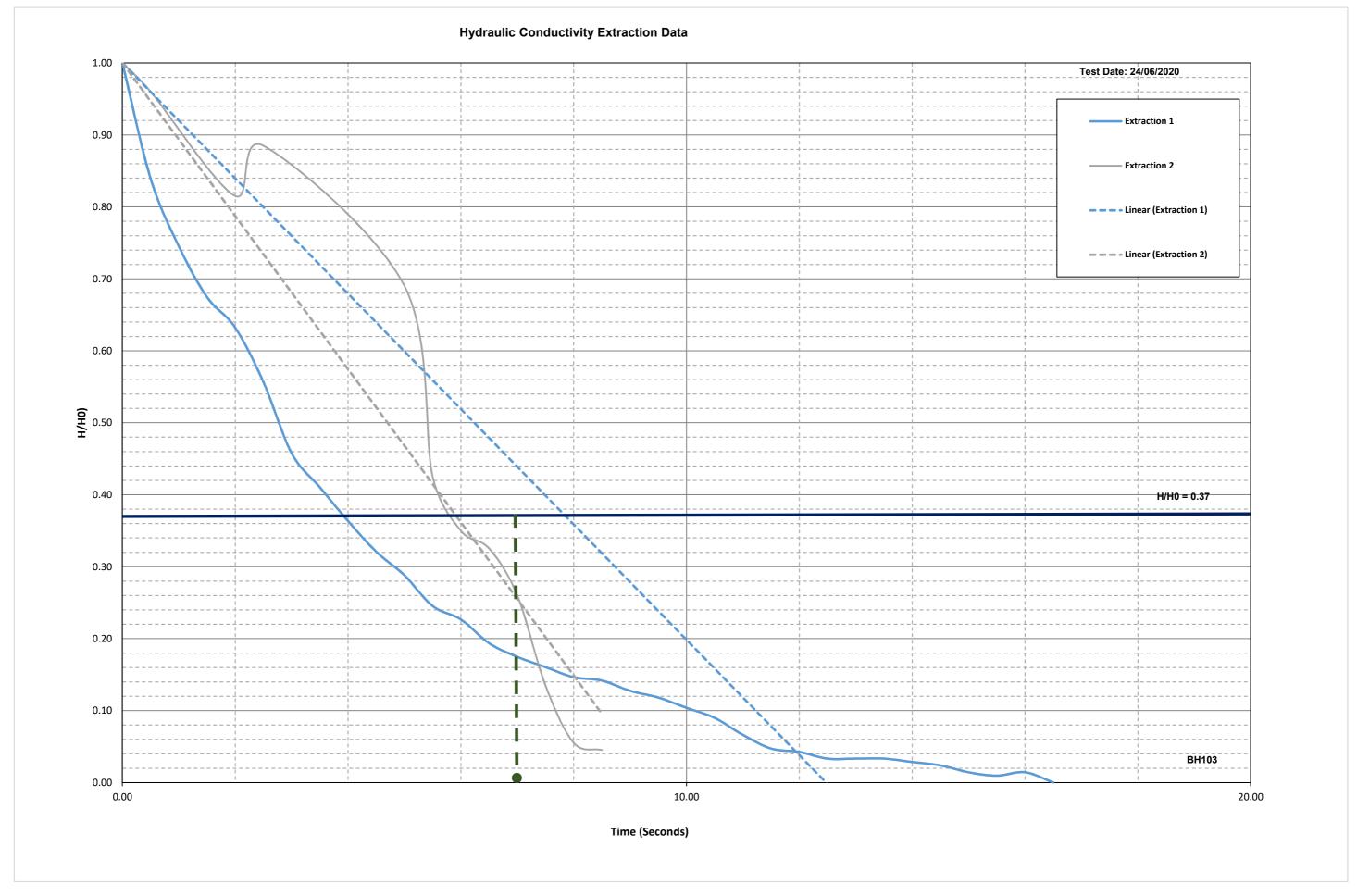
Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 4 of 15



Contract: Prairie Site Ground Investigation Works

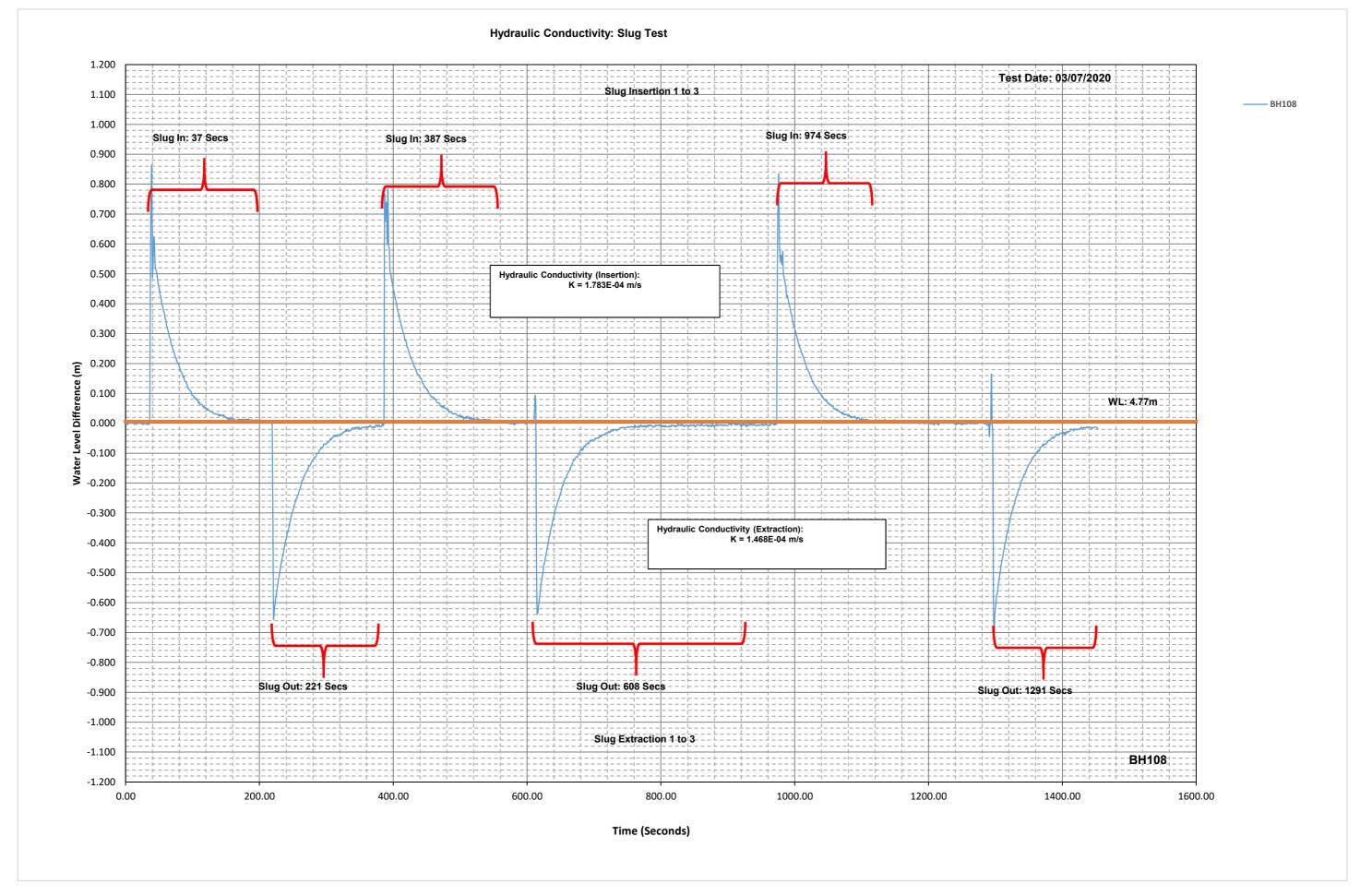
Contract No.: 4251 Date: 29/07/2020 Sheet: 5 of 15



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 6 of 15

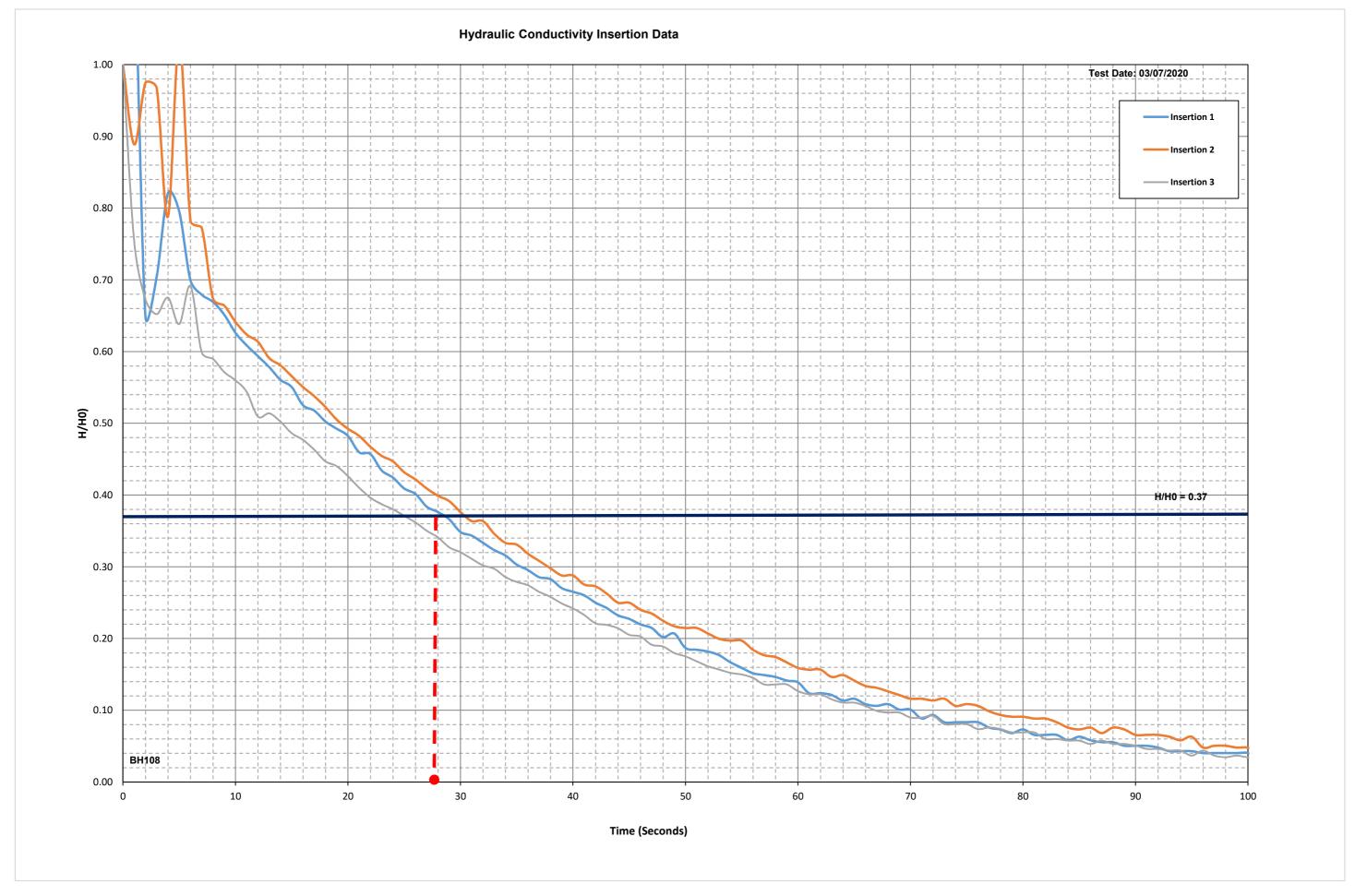
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Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 7 of 15

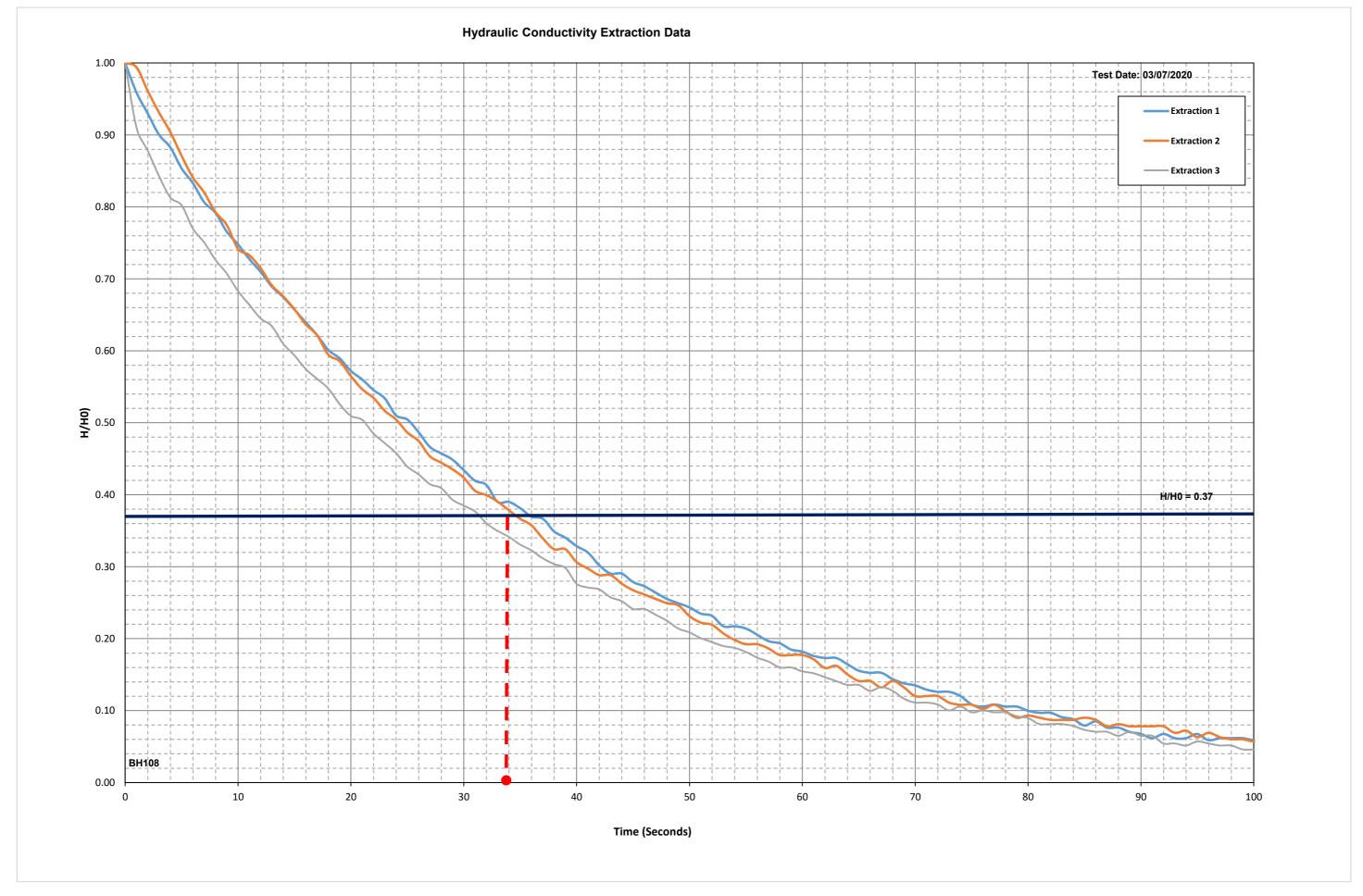
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 8 of 15

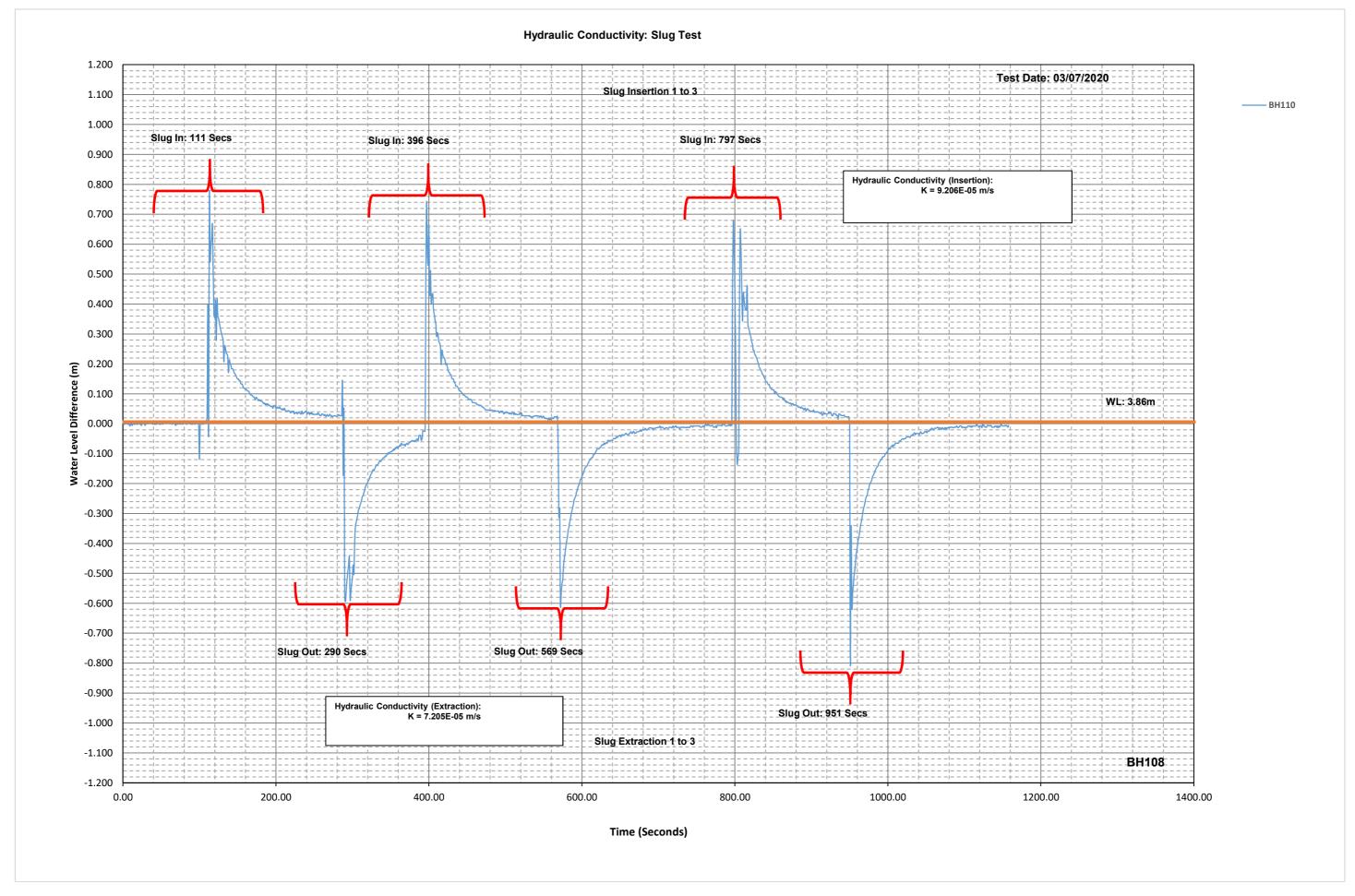
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 9 of 15

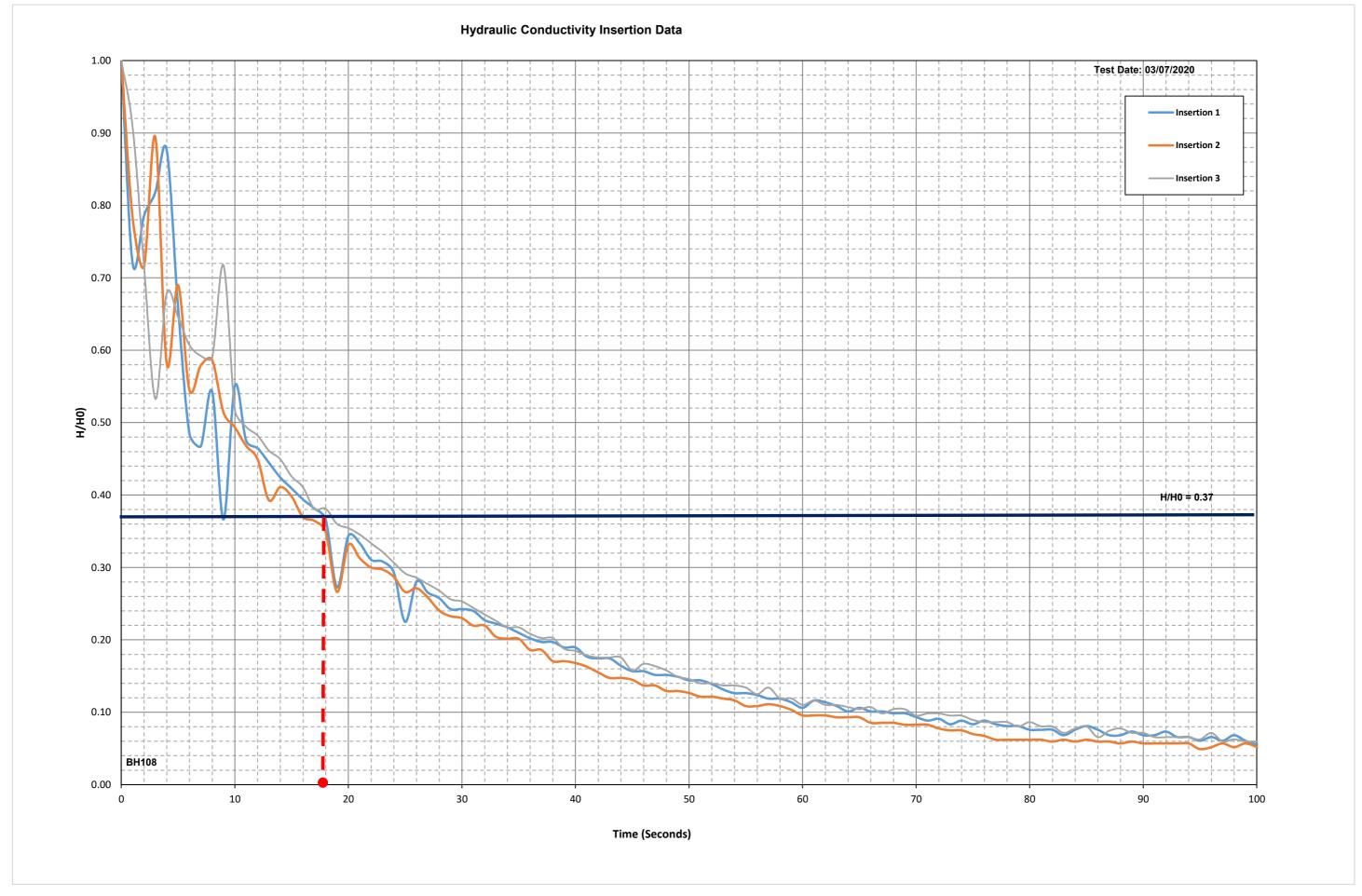
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 10 of 15

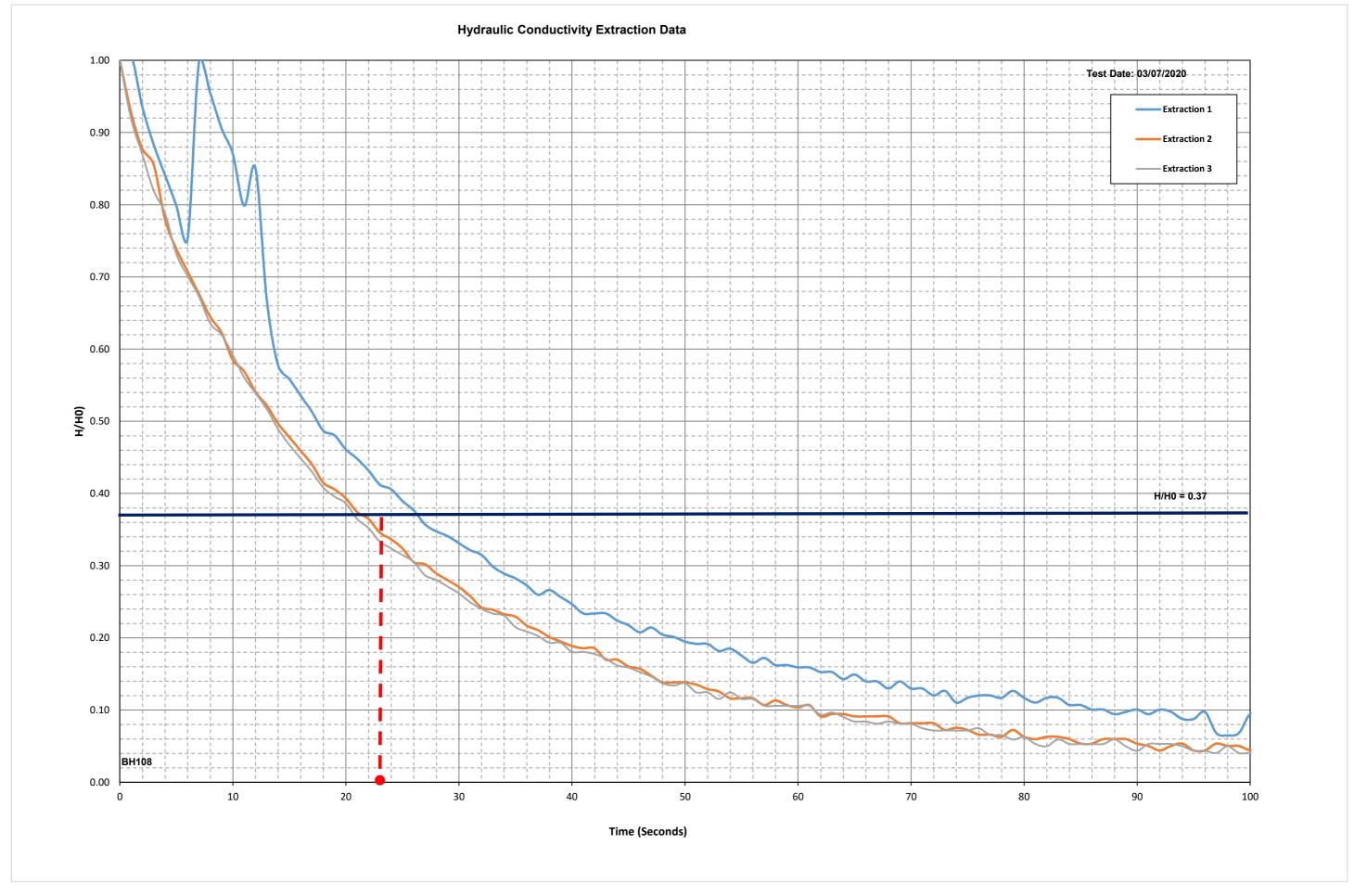
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



**Contract:** Prairie Site Ground Investigation Works **Contract No.:** 4251

**Date**: 29/07/2020 **Sheet**: 11 of 15

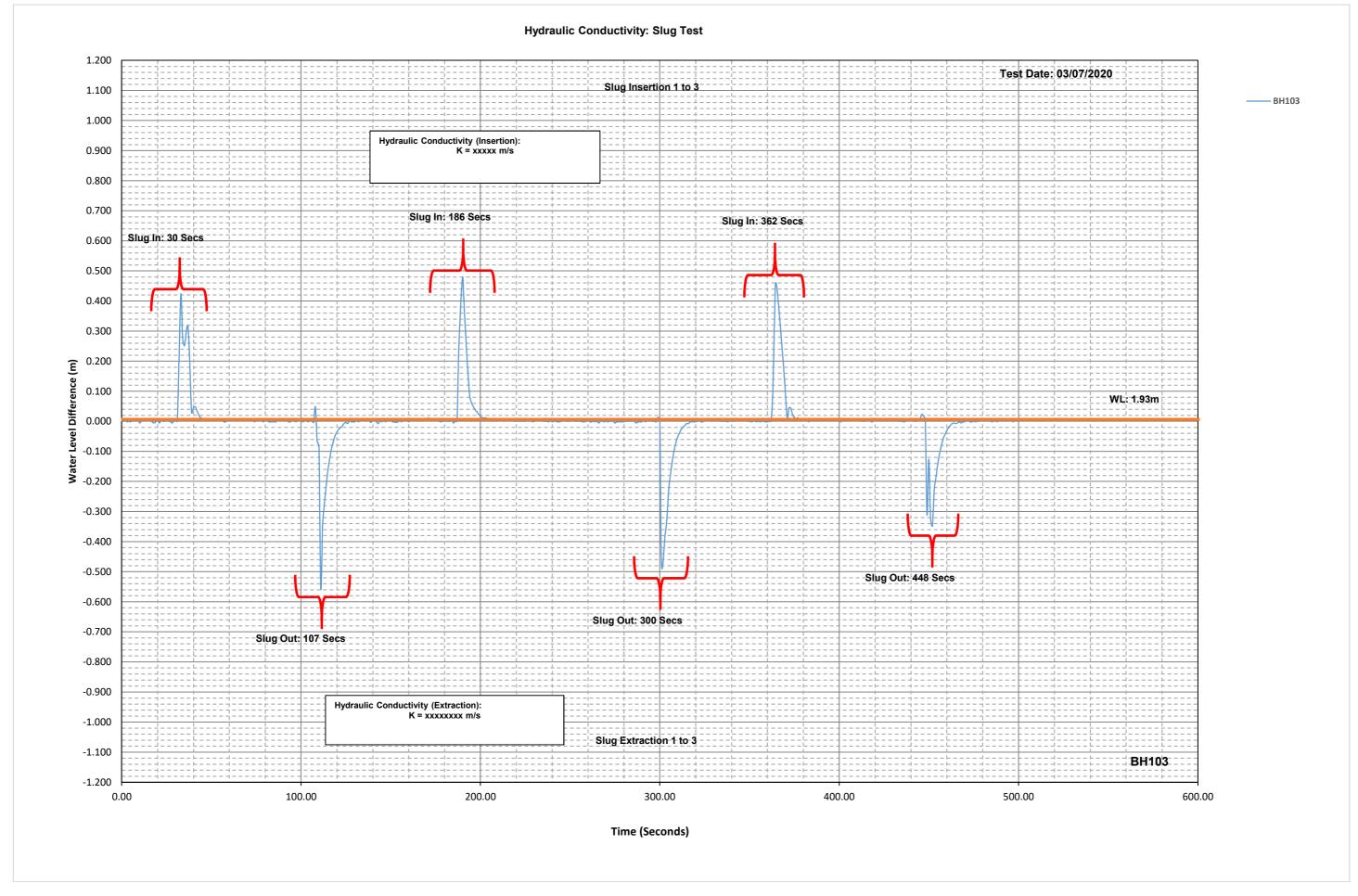
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 12 of 15

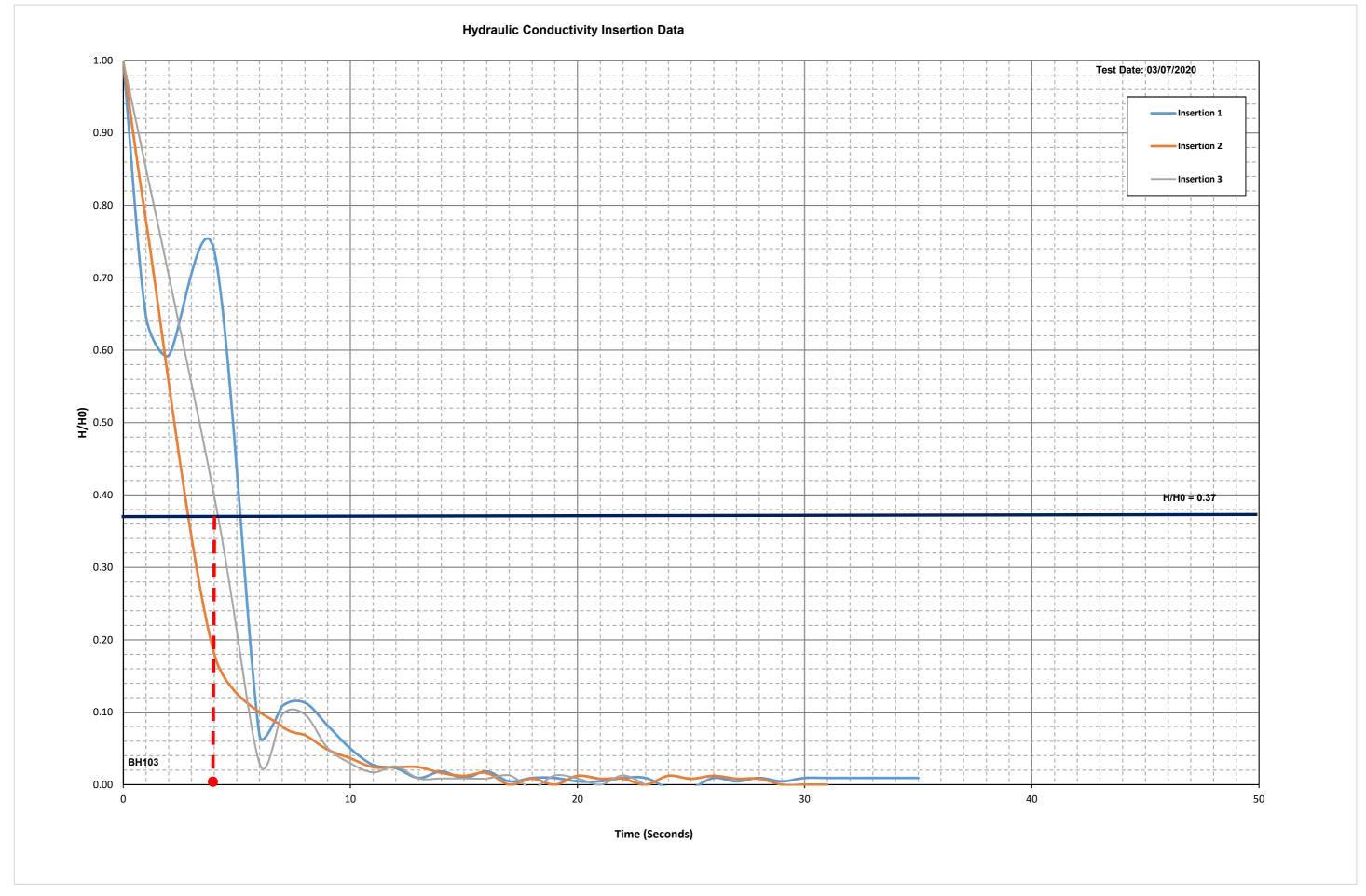
Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 13 of 15

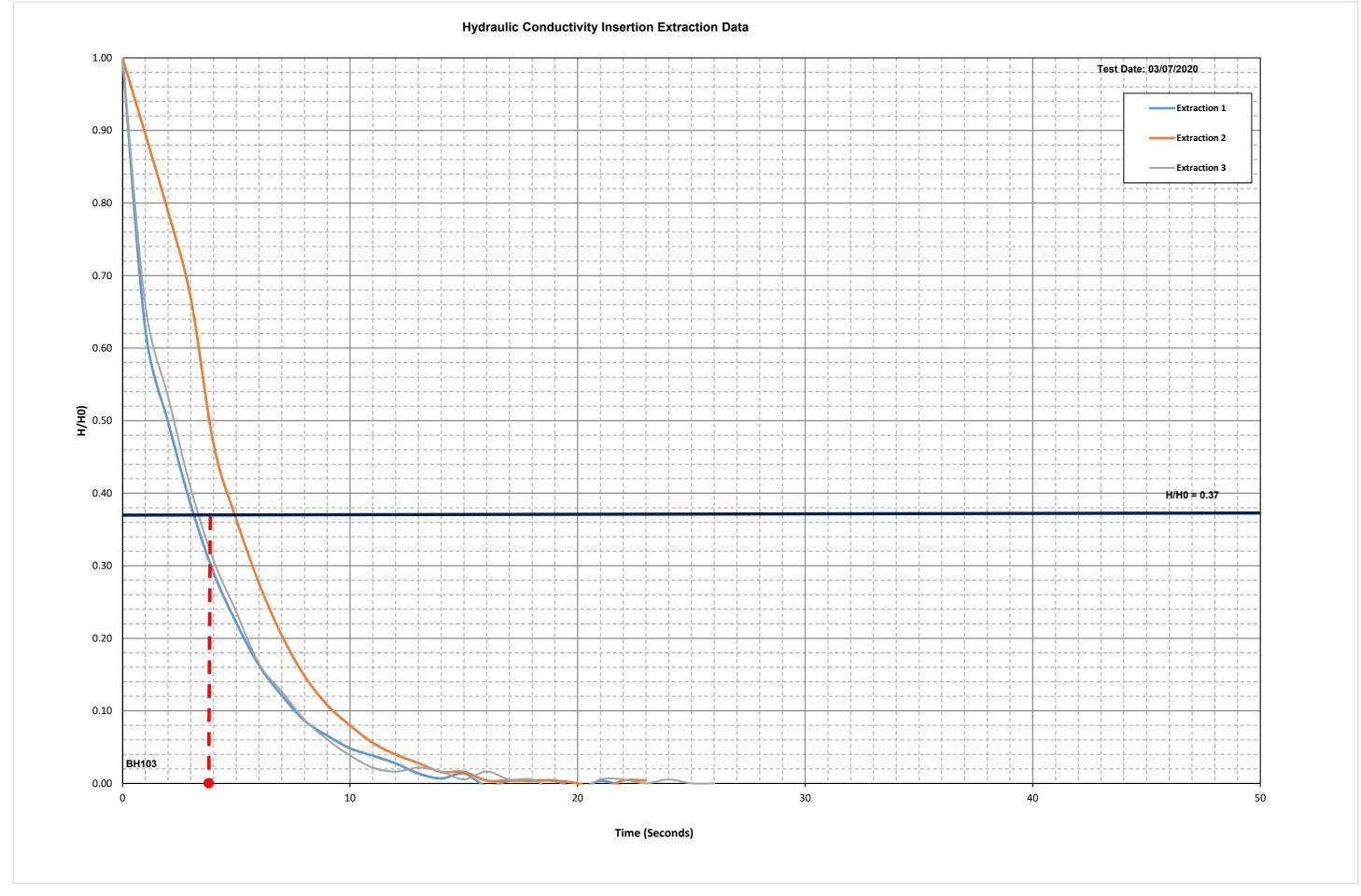
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Contract: Prairie Site Ground Investigation Works Contract No.: 4251

**Date**: 29/07/2020 **Sheet**: 14 of 15

Head Office: Unit 25, Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, County Durham, DH2 2RG.



Contract: Prairie Site Ground Investigation Works

Contract No.: 4251 Date: 29/07/2020 Sheet: 15 of 15 **Laboratory Report Certificate** 



Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG - Tel: 0191 3874700 Fax: 0191 3874710 Regional Office: Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL – Tel: 01722 735 300 Fax: 01722 735 999



### LABORATORY REPORT CERTIFICATE



Contract Title: Prairie Site Ground Investigation Works AEG Reference: 4251

Client Address: Tees Valley Combined Authority

Teesside Management Office

Trunk Road Redcar TS10 5QW

We certify that Laboratory testing was carried out on samples from the above contract in accordance with techniques outlined in BS 1377: 1990, BS EN ISO 17892:2014 or other appropriate standards as quoted. The samples were received from May 2020 and the following results, given on the attached enclosures, were obtained.

The tests carried out are indicated in the attached table showing the enclosure number and the total number of pages.

For and on behal	f of Allied Exploration & Geotechnics Limited	
	Nick Vater (Managing Director)	
	Kevin Warriner (HSE & Quality Director)	
	Michelle Selkirk (Laboratory Manager)	
Signed		Date: 29 June 2020

Tests marked not UKAS accredited in this certificate are not included in the UKAS accreditation schedule for our laboratory. Any opinions and interpretations expressed herein are outside the scope of the laboratory's UKAS accreditation.

Please note the material was derived from samples taken outside the control of the laboratory.

## LABORATORY REPORT CERTIFICATE

## **ENCLOSURES**

Enclosure Number	Description	UKAS Accredited	Reference	No. of Pages
0	Laboratory Report Certificate	N/A	* * *	3
1	Sample Description Sheets	N/A		
2	Moisture Content	Yes	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)	<del>-</del>
2	Plasticity Index and Moisture Content	Yes	BS 1377 Part 2 1990 (BS EN ISO 17892-1:2014)	-
<del>-</del>	Determination of Density by Linear Measurement	Yes	BS 1377 Part 2 1990 (BS EN ISO 17892-2:2014)	-
3	Determination of Particle Density	Yes	BS 1377 Part 2 1990	-
4	Particle Size Distribution Sieving	Yes	BS 1377 Part 2 1990	7 <b>-</b> 7
4	Particle Size Distribution Sedimentation	No	BS 1377 Part 2 1990	-
5	Determination of Sulphate and pH (Tested externally)	No	See DETS certificates	-
	Determination of Dry Density/Moisture Content Relationship	Yes	BS 1377 Part 4 1990	
-	Determination of Dry Density/Moisture/CBR Relationship	Yes	BS 1377 Part 4 1990	-
-	Determination of Moisture Condition Value	Yes	BS 1377 Part 4 1990	-
. <del>-</del> .	Determination of MCV / Moisture Relationship	Yes	BS 1377 Part 4 1990	-
-	Determination of California Bearing Ratio	Yes	BS 1377 Part 4 1990	-
-	Determination of One Dimensional Consolidation Properties	Yes	BS 1377 Part 5 1990	-
ş -	Determination of Permeability (Falling Head)	Yes	In-house Method	
-	Determination of Permeability in a Triaxial Cell	Yes	BS 1377 Part 6 1990	-
-	Shear Strength by Hand Vane	No	,	-
-	Shear Strength by Direct Shear	Yes	BS 1377 Part 7 1990	-
6	Undrained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement	Yes	BS 1377 Part 7 1990	-
-	Consolidated Undrained Shear Strength in Triaxial Cell with Measurement of Pore Pressure	No	BS 1377 Part 8 1990	-
-	Consolidated Drained Shear Strength in Triaxial Cell with Measurement of Volume Change	No	BS 1377 Part 8 1990	-
7	Determination of Point Load Index	Yes	ISRM 1985	-
8	Determination of Unconfined Compressive Strength (Tested externally)	No	ISRM 1985	

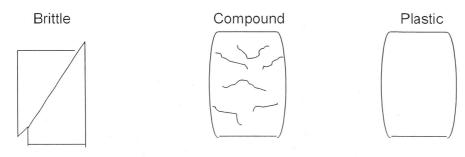
## LABORATORY REPORT CERTIFICATE

## **ABBREVIATIONS**

All the abbreviations used on the laboratory certificates are given below:

Br	Brittle	PSD	Particle Size Distribution by sieve analysis
С	Compound	SB	Shear Box
CBR	California Bearing Ratio	SED	Sedimentation Analysis
CDT	Consolidated Drained Triaxial	SO4	Sulphate (total, water extract, groundwater)
CL	Chloride content (water or soil)	CP2	Dry Density/Moisture Content 2.5kg rammer
US	Unsuitable sample for test	CP4	As above using 4.5kg rammer
UUT	Undrained Unconsolidated Triaxial	CPV	As above using vibrating hammer
HSV	Vane Test	CUT	Consolidated Undrained Triaxial
IS	Insufficient sample for test	R	Remoulded
LOI	Loss On Ignition	U	Undisturbed
M	Multi-stage testing	MC	Moisture Content
MCV	Moisture Content Value	PL	Point Load
NAT	Natural preparation method	NMC	Natural (or as received) moisture content
Р	Plastic	PFH	Permeability Falling Head Method
OED	Oedometer	PTXL	Permeability in Triaxial Cell
OMC	Optimum Moisture Content	ORG	Organic content
В	Large disturbed (bulk) sample	PD ,	Particle Density (SG)
J	Small disturbed (jar) sample	PI	Liquid limit, plastic limit and plasticity index
Typical Mode of Failure for Triavial Testing			

#### Typical Mode of Failure for Triaxial Testing



Laboratory report Certificate Page 3 of 3

**Sample Description Sheets** 



### **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 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax: 01772 735 999

	nple (m) ID	Description	Laboratory Tests/Remarks
PRAIRIE_AUK_BH101 3.00	) U2	Low strength laminated brown silty CLAY of intermediate plasticity with occasional silt lenses.	MC PI PD UUT
PRAIRIE_AUK_BH101 4.00	) J4	Brown slightly sandy CLAY.	SO4
PRAIRIE_AUK_BH101 4.00	) B5	Brown silty slightly sandy CLAY.	PSD SED
PRAIRIE_AUK_BH101 5.00	) U7	Low strength laminated brown silty slightly sandy CLAY of intermediate plasticity.	MC PI UUT
PRAIRIE_AUK_BH101 8.00	) U12	Medium strength laminated brown silty slightly sandy CLAY.	UUT
PRAIRIE_AUK_BH101 9.00	) J14	Brown slightly sandy CLAY.	SO4
PRAIRIE_AUK_BH101 11.0	0 U18	High strength brown slightly sandy slightly gravelly CLAY of low plasticity.	MC PI PD UUT
PRAIRIE_AUK_BH101 12.5	0 J21	Brown slightly sandy gravelly CLAY.	MC PI(IS for LL)
PRAIRIE_AUK_BH101 12.5	0 B22	Brown slightly sandy slightly gravelly CLAY with a medium cobble content.	PSD SED
PRAIRIE_AUK_BH101 15.5	0 J27		MC PI
PRAIRIE_AUK_BH101 15.5	0 B28		PSD SED
PRAIRIE_AUK_BH101 17.0	0 J30	Brown slightly sandy gravelly CLAY.	BRE
PRAIRIE_AUK_BH101 18.0	0 J33	White and brown slightly sandy GRAVEL.	MC BRE US for PI

Contrac	ct Title :- Prairie Site Ground Inves	stigation Works	Client :-	South Tees De	evelopment Corpora	ition
4	Signed :-	Name :-	'		Page 1 of 1	
	Date of issue :-	Certificate No :-		AEG Contrac	t No. :-	
<b>(3</b>	29/06/2020	SD/4251/1			4251	UKAS TESTING 1367

**Moisture Content/Plasticity Index and Moisture Content** 



### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

		MO		ONTENT CE		
Exploratory Hole No.	Sample Depth (m)	Sample ID	Specific Depth (m)	7 : Part 2 : Clause  Moisture  Content (%)	Date Tested	Remarks
PRAIRIE_AUK_BH101	18.00	J33	18.00	16.6	17/06/2020	
	,					

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :-

Name :-

MC/4251/1

Page 1 of 1

Date of issue :-

29/06/2020

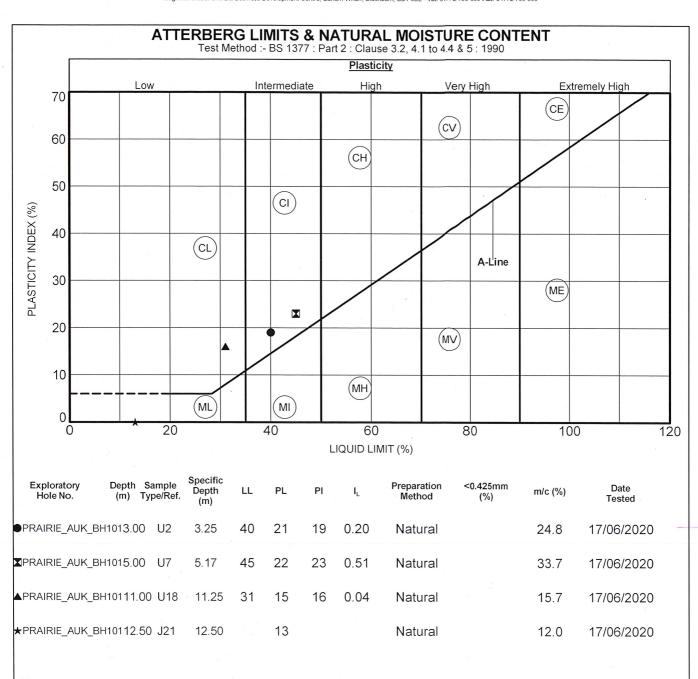
Certificate No :-

AEG Contract No. :-

4251



### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**



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 :-

Name :-

Page 1 of 1

Date of issue :-

Certificate No :-

AEG Contract No. :-

PI/4251/1

4251

29/06/2020

**Determination of Particle Density** 



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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

### **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

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

PD/4251/1

Contract Title :-

Prairie Site Ground Investigation Works

Client :-

South Tees Development Corporation



Signed :- ()

Name :-

Page 1 of 1

Date of issue :-

29/06/2020

Certificate No :-

AEG Contract No. :-

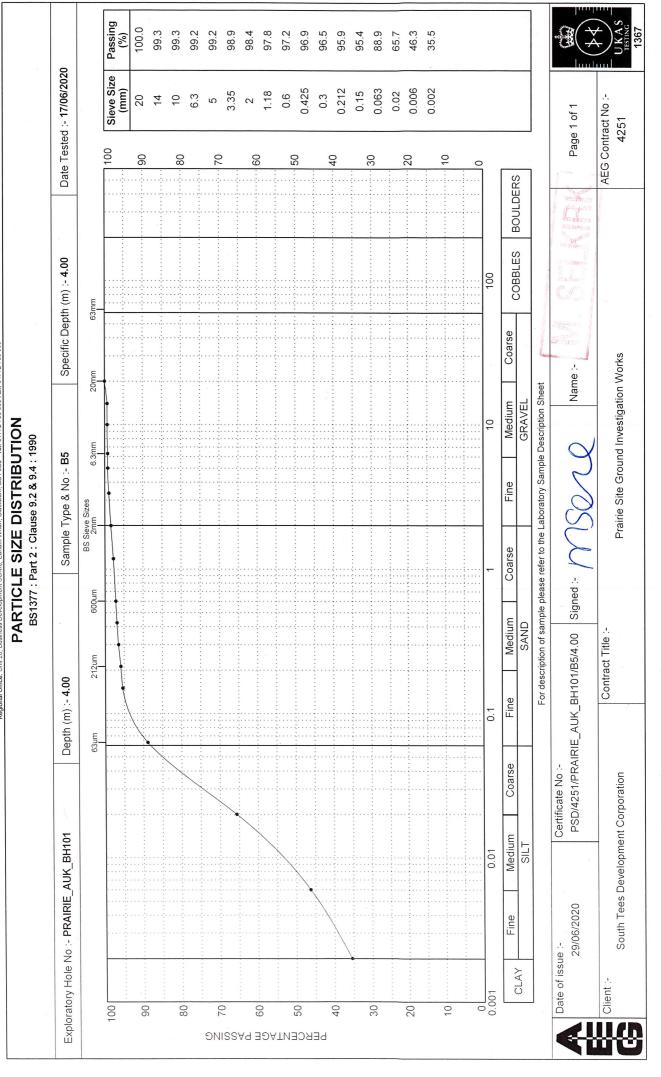
4251



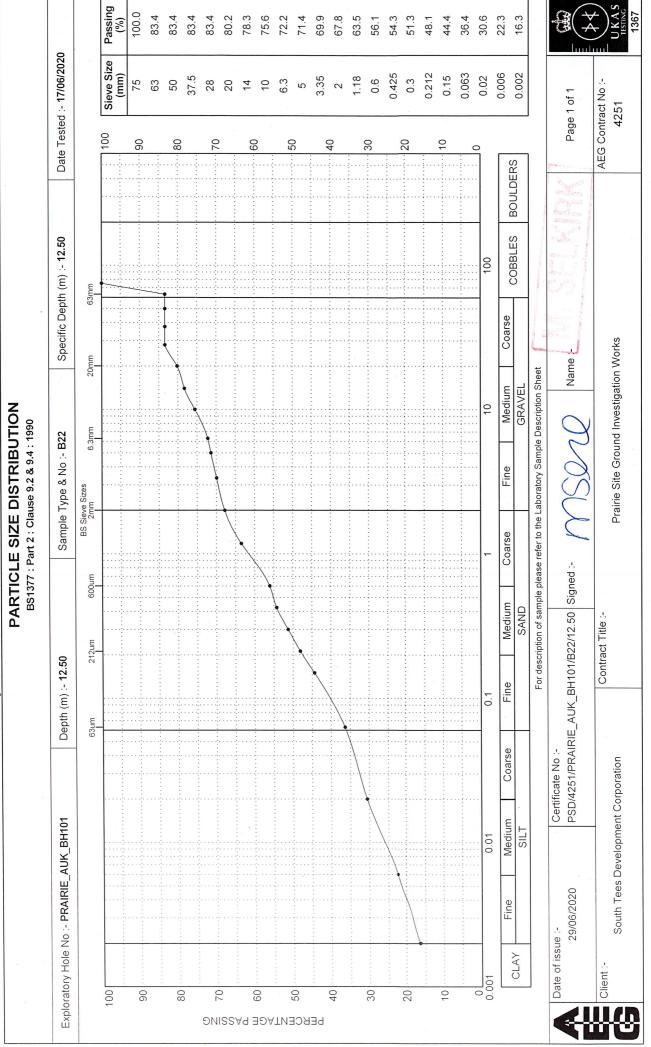
**Particle Size Distribution Sieving and Sedimentation** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Hoad Office: Unit 25 Stells Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co., Durham, DH2 2RG- Tet; 0191 387 4700 Fax; 0191 387 4710



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stella Gill Industrial Estate, Pelton Fall, Chester-le-Street, Co. Durham, DH2 2RG - Tei: 0191 387 4700 Fax: 0191 387 4710



Determination of Sulphate and pH (Tested Externally)





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





Our Ref 20-10974 Client Ref 4251

Lab No	1687327	1687328	1687329	1687330
2	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	4	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

lest	Method	LOD	Units				
Inorganics							
рН	DETSC 2008#		рН			7.8	8.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1100	270	2400	3000



Inappropriate

### Information in Support of the Analytical Results

Our Ref 20-10974 Client Ref 4251

Contract Prairie Site Ground Investigation Works

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

### Date container for Lab No Sample ID Sampled Containers Received Holding time exceeded for tests tests 1687327 PRAIRIE\_AUK\_BH101 4.00 27/04/20 PT 1L Anions 2:1 (30 days) SOIL 1687328 PRAIRIE\_AUK\_BH101 9.00 27/04/20 PT 1L Anions 2:1 (30 days) PRAIRIE\_AUK\_BH101 17.00 28/04/20 1687329 PT 1L Anions 2:1 (30 days), pH + Conductivity (7 days) SOIL 1687330 PRAIRIE AUK BH101 18.00 29/04/20 PT 1L Anions 2:1 (30 days), pH + Conductivity (7 days) SOIL

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

**Undrained Shear Strength in Triaxial Cell without Pore Water Pressure Measurement** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head office: Unit 25 Stells Gill Industrial Estate, Pelion Felt, Chester-le-Street, Co. Durham, DH2 2RO- Tel: 0197 387 4700 Fax; 0197 387 4710 Regional Office: Unit 20, Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL - Tel: 01772 735 300 Fax; 0777 735 599

# 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 Sample ID Hole Depth Ty (m)	e 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	~	32.7	1.95	1.47	0.3	1.10	09	52	20.0	Ф	25.8	17/06/2020
PRAIRIE_AUK_BH101 5.00	70	5.18	104.0	211.0	UNDISTURBED	<u></u>	32.9	1.93	1.46	0.3	62.0	80	63	13.0	Ф	31.7	17/06/2020
PRAIRIE_AUK_BH101 8.00	U12	8.01	103.0	210.0	UNDISTURBED	-	27.3	1.98	1.55	6.4	0.94	110	87	11.0	BR	43.3	17/06/2020
PRAIRIE_AUK_BH101 11.00	U18	11.01	104.7	210.7	UNDISTURBED	-	16.1	2.19	1.89	6.0	0.85	140	251	14.5	۵	125	17/06/2020
riptic	on of sample p = :- 29/06/2020	please refe	r to the Laborat	ratory Sample Do	ole Descriptio	on Sheet. Pi	Please note the	e rate of stra	uin was 2% p	Der minute ar	e and the oriente	ation of the	test specime	an was vertic	specimen was vertical. Latex membrane used.	ambrane us	ed.
Client :-	uth Tees	Developm	South Tees Development Corporation	on		Contract Title		Prairie Sit	e Ground	Prairie Site Ground Investigation Works	in Works			, ,	4251		UKAS TESTING 1367

**Determination of Point Load Index** 



# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Unit 25 Stells 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 735 599

	Date Tested	17/06/2020		NA KAS	1367
	Type	Sandstone	r a reading	Page 1 of 1 AEG Contract No:- 4251	)
	Point Load Index (IS50) (MPa)	0.078			
	Size Factor	1.23	ngh both po	Name :- tion Works	
POINT LOAD STRENGTH INDEX ISRM: 1985	Point Load (IS) (MPa)	90.0	ailure (Did not pass thro	Name :-  Name :-	,
<b>JAD STREN</b> ISRM: 1985	De² (mm²)	6365.0			
OINT L	Failure Load (kN)*	0.4	vernier cali	Signed -:	
	Platen Separation (mm)+	58.4	NOTES - +Tested specimen measured using calibrated vernier calipers	51/1 Contract Title :-	
	Width (mm)	85.6	specimen measu	Certificate No :- PL/4251/1	
	Type/ Orientation	Axial	NOTES - +Tested	s Developme	
	Depth (m)	7.70		29/06/2020 South Tee	5
	Exploratory Hole No	PRAIRIE_AUK_BH109		Date of issue :- 29// Client :- Sc	<b>B</b>

Determination of Unconfined Compressive Strength (Tested Externally)







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

24/06/2020



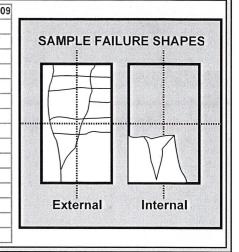
Issue No. 01

Page 1 of 2

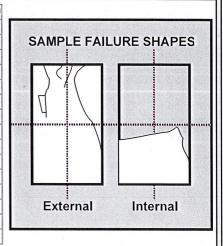
### ALLIED EXPLORATION & GEOTECHNICS LIMITED PRAIRIE SITE GROUND INVESTIGATION WORKS



	Prairie_AUK_BH-09
######################################	С
m	9.00
mm	81.64
mm	169.33
	As Received
kN/s	0.4
min.sec	4.37
	22/06/2020
	2000kN
1	Unknown
kN	105.9
MPa	20.2
%	3.5
Mg/m³	2.60
Mg/m³	2.51
	mm mm kN/s min.sec  kN MPa % Mg/m³



Taken yitti mak (aven avi gen a Zirkamenni Amen ette kirkamen av ette ken attaliken satta populli Emerik zi ke aktivise ette kirka e	arcarotin aliacatinora anticonisti (2014) directa	
BOREHOLE		Prairie_AUK_BH-09
SAMPLE		С
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 <sup>3</sup>	2.58
DRY DENSITY (ISRM Suggested Methods)	Mg/m <sup>3</sup>	2.54



BOREHOLE		
SAMPLE		
DEPTH	. m	SAMPLE FAILURE SHAPES
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)	%	External Internal
BULK DENSITY (ISRM Suggested Methods)	Mg/m³	
DRY DENSITY (ISRM Suggested Methods)	Mg/m <sup>3</sup>	

Tested in accordance with ASTM D7012 - 14

SUMMARY OF UNCONFINED COMPRESSIVE STRENGTH

Specialist Chemical Testing (Tested Externally)





11-Jun-20

### Certificate of Analysis

Certificate Number 20-07033,20-07070,20-07108,20-07266,20-07289,20-

07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

09146,20-09147,20-09149

Client Allied Exploration & Geotechnics Limited

Unit 25

Stella Gill Industrial Estate

Pelton Fell DH2 2RG

Our Reference 20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-

07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-

09147,20-09149

Client Reference 4251

Order No (not supplied)

Contract Title Prairie Site Ground Investigation Works

Description 119 Soil samples, 24 Leachate samples, 15 Water samples.

Date Received 06-Apr-20

Date Started 06-Apr-20

Date Completed 11-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

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Approved By

Adam Fenwick Contracts Manager







20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07617, 20-0

Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149

Client Ref 4251

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
PRAIRIE_AUK_TP13					·
	4	1.3	1663605	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP13					,
	5	1.8	1663606	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP10		2.0	100000	03,00,2020	
	5	1	1663734	03/06/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRAIRIE_AUK_TP10					
1_SO_0220	9	2.2	1663735	03/06/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP10					
4_SO_0150	5	1.5	1663736	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP10					
5_SO_0250	11	2.5	1663737	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_BH10					
4_SO_0550	1	5.5	1663978	03/06/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP17					
2_SO_0080	3	0.8	1665133	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP17					
	3	0.8	1665134	03/06/2020	Dark brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP17					
	6	1.8	1665135	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP17					
	3	0.8	1665136	03/06/2020	Dark brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_BH10					
	1	5.5	1665137	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP10					
	6	1.8	1665138	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP10					
	11	0.8	1665139	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP10					B 11
	5	1	1665140	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP10	•		4665444	00/05/0000	Dadi kasus sasusiku CAND
	8	2	1665141	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP11 3_SO_0130	-	4.2	4665442	02/05/2020	Dark brown gravelly SAND
PRAIRIE_AUK_BH10	5	1.3	1665142	03/06/2020	Dark brown gravery SAND
	1	2.5	1665286	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP11	1	2.5	1003200	03/00/2020	Daik blown sailuy CEAT
	6	1.9	1665288	03/06/2020	Dark grey sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP12	U	1.9	1003288	03/00/2020	Dankgrey sundy Grove E (sumple matrix outside MeERTS scope of accreditation)
	3	1	1665290	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP12		_	1003230	03/00/2020	
	3	0.6	1665291	03/06/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP18				25,00,2020	S P I-I -
	5	4.3	1665292	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP18		-		-,,	· · · · · · · · · · · · · · · · · · ·
	3	0.5	1665293	03/06/2020	Dark brown gravelly, sandy CLAY (Possible made ground - brick)
PRAIRIE_AUK_TP18					
8_SO_0100	3	1	1665295	03/06/2020	Dark brown gravelly SAND
PRARIE_AUK_TP121					
_SO_0150	4	1.5	1665450	03/06/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)
PRARIE_AUK_TP138					
	3	1.2	1665451	03/06/2020	Dark brown gravelly SAND (Possible made ground - brick)
PRARIE_AUK_TP149					
_SO_0130	3	1.3	1665452	03/06/2020	Dark brown gravelly, clayey SAND



20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07617, 20-0

 $\textit{Our Ref} \quad 07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-09149, 20-0$ 

Client Ref 4251

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description			
PRARIE_AUK_TP168								
_SO_0005	1	0.05	1665453	03/06/2020	Dark brown gravelly, clayey SAND			
PRARIE_AUK_TP173								
SO_0090	3	0.9	1665454	03/06/2020	Dark brown gravelly, clayey SAND			
PRARIE_AUK_SURF								
ACE1_SO_0000	1		1665455	03/06/2020	Cream, gravelly, sandy and CLAY			
PRAIRIE_AUK_TP11				10,00,00				
4_SO_0090	6	0.9	1665588	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP12	1	10.0	100000	00,00,2020				
4_SO_0150	5	1.5	1665589	03/06/2020	Dark brown gravelly, very sandy CLAY			
PRAIRIE_AUK_TP17		1.0	100000	03,00,2020				
4_SO_0080	3	0.8	1665590	03/06/2020	Dark brown gravelly, very sandy CLAY			
PRAIRIE_AUK_TP17		0.0	1003330	03/00/2020				
4_SO_0160	6	1.6	1665591	03/06/2020	Dark brown sandy CLAY			
PRAIRIE_AUK_TP17		1.0	1003331	03/00/2020				
6_SO_0090	3	0.9	1665592	03/06/2020	Dark brown gravelly, very sandy CLAY			
PRAIRIE_AUK_TP17		0.5	1003332	03,00,2020				
7_SO_0060	2	0.6	1665593	03/06/2020	Dark brown gravelly, very sandy CLAY			
PRAIRIE_AUK_TP18	2	0.0	1003333	03/00/2020	Summer of Summer Community			
9_SO_0300	7	3	1665594	03/06/2020	Dark brown sandy CLAY			
PRAIRIE_AUK_TP17	,		1003331	03,00,2020				
9_SO_0140	4	1.4	1665610	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP17	-	1	1003010	03/00/2020	o, o compre matrix outside meaning stope of accidental			
9_SO_0200	7	2	1665611	03/06/2020	Dark brown sandy CLAY			
PRAIRIE_AUK_TP18	,	2	1003011	03/00/2020				
1_SO_0060	3	0.6	1665612	03/06/2020	Dark brown gravelly, very, sandy CLAY			
PRAIRIE_AUK_TP18	3	0.0	1003012	03/00/2020	Bulk brown graveny, very, samely earl			
2_SO_0090	3	0.9	1665613	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP14		0.5	1003013	03/00/2020				
5_SO_0160	4	1.6	1665990	03/06/2020	Dark brown gravelly, sandy CLAY			
PRAIRIE_AUK_TP14		1.0	1003330	03,00,2020				
6C_SO_0130	5	1.3	1665991	03/06/2020	Dark brown gravelly, sandy CLAY			
PRAIRIE_AUK_TP15		1.5	1003331	03,00,2020				
6A_SO_0030	2	0.3	1665992	03/06/2020	Dark brown gravelly, very sandy CLAY			
PRAIRIE_AUK_TP16	1	10.0	1000332	00,00,2020				
2_SO_0170	3A	1.7	1665993	03/06/2020	Dark brown gravelly, very sandy CLAY including some rootlets			
PRAIRIE_AUK_TP18		1						
0_SO_0030	3	0.3	1665994	03/06/2020	Dark brown gravelly, very sandy CLAY including some rootlets			
PRAIRIE_AUK_TP16		10.0	100000	03/03/2020				
3 SO 0120	3	1.2	1665995	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP13		1	1000000	00,00,2020				
5_SO_0130	5	1.3	1666343	03/06/2020	Dark brown clayey, sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE AUK TP13		1						
6_SO_0080	3	0.8	1666344	03/06/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP13	-			,, 2020				
6_SO_0290	10	2.9	1666345	03/06/2020	Dark brown sandy CLAY			
PRAIRIE_AUK_TP16				2, 20, 2020	, , , , , , , , , , , , , , , , , , ,			
5_SO_0100	3	1	1666346	03/06/2020	Dark brown gravelly, clayey SAND			
PRAIRIE_AUK_TP16	-	<del> </del>		,,2020				
7_SO_0250	6	2.5	1666347	03/06/2020	Dark brown gravelly, clayey SAND			
PRAIRIE_AUK_TP16	-		1000017	25,00,2020				
9_SO_0150	3	1.5	1666348	03/06/2020	Dark brown gravelly, clayey SAND			
PRAIRIE_AUK_BH10	-			,,2020				
8_SO_0250	1	2.5	1666610	03/06/2020	Dark brown sandy CLAY			
	I <sup>-</sup>	1		- 5, 55, 2525	<u>,                                      </u>			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

 $\textit{Our Ref} \quad 07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-09149, 20-0$ 

Client Ref 4251

PRAIRIE_JUK_TP12	Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description
98, 50, 0030 3			<b>⊤</b> •		<del> </del>	•
PRABRIE JAILY FP13 9 S. O. 0330 6 9 S. O. 0350 6 9		3	0.3	1666611	03/06/2020	
98. SO 0330 6 3.3 1666612 03,06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 16,000 1 1 1 1666613 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 16,000 1 1 1 1666614 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 16,000 1 1 1 1666615 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 16,000 1 1 1 1666616 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 16,000 1 1 1 1666616 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 17 1 1 1666616 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 18 1 1 1666616 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 19 1 1 1666616 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 19 1 1 1 1666616 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 19 1 1 1 166735 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 19 1 1 1 166736 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 19 1 1 1 166736 03/06/2020 Dark brown sandy CLAY  RARBER JAUF, TYS 19 1 1 1 166730 03/06/2020 Dark brown gravelly, clayey SAND  RARBER JAUF, TYS 19 1 1 1 166730 03/06/2020 Dark brown gravelly sandy CLAY  RARBER JAUF, TYS 19 1 1 1 166750 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166750 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166750 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166750 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166750 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19 1 1 1 1 166610 03/06/2020 Dark brown gravelly SAND  RARBER JAUF, TYS 19			0.0	1000011	00,00,2020	,
PRAIRIE JAUK_TP14   S.   1.4   166613   03/06/2020   Dark brown very sandy CRAYEL [Possible made ground - brick] (sample matrix outside   S.   Dark brown very sandy CRAYEL [Possible made ground - brick] (sample matrix outside   Dark brown very sandy CRAYEL [Possible made ground - brick] (sample matrix outside   Dark brown very sandy CRAYEL [Possible made ground - brick] (sample matrix outside   Dark brown very sandy CRAYEL [Possible made ground - brick] (sample matrix outside   Dark brown very sandy CRAYEL [Sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown very sandy CRAYEL [sample matrix outside   MCERTS scope of accreditation)   Dark brown gravelly, clayer SAND   Dark brown gravelly, clayer SAND   Dark brown sandy CLAYEL   Dark brown sandy CLAYEL   Dark brown gravelly, clayer SAND   Dark brown gravelly, clayer SAND   Dark brown gravelly, sandy CLAYEL   Dark brown gravelly, sandy CLAY		6	3.3	1666612	03/06/2020	Dark brown sandy CLAY
As. Sol. 0140   5			0.0	1000012	00,00,2020	
PRAIRIE JULY PTS		5	1.4	1666613	03/06/2020	
0.50   0.150   3					55,55,252	
PRAIRIE_AUK_TP15   0.6   1666165   03/06/2020   0.7		3	1.5	1666614	03/06/2020	
9. SO. 0.060   3   0.6   166615   0.3/06/2020   Dark brown very sandy. GRAVEL (sample matrix outside MCERTS scope of accreditation) PRAIRIE_AUK_P19   0.					1	
PRAIRIE_AUK_TP12   1.0		3	0.6	1666615	03/06/2020	Dark brown very sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)
DA S.D. 0.11.0   3						
PRAINE_AUK_P12   S.O. 0.200   S.O. 0.20   S.O. 0.200   S.	0A_SO_0110	3	1.1	1666616	03/06/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP12   S	PRAIRIE_AUK_BH10					
PRAIRIE_AUK_TP12   S	5_SO_0300	1	3	1667231	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP12   SO_0090   3	PRAIRIE_AUK_TP12					
8 S.O. 0090 3 0.9 1667233 03/06/2020 U/S (sample matrix outside MCERTS scope of accreditation) PRAIRIE_AUK_TP12 9 0.0 210 4A 2.1 1667234 03/06/2020 Dark brown sandy CLAY PRAIRIE_AUK_TP13 0 0.0 1667235 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP15 1 0.0 1 1667235 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP15 1 0.0 1 1667235 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP15 1 0.0 1 1667235 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP15 1 0.0 1 1667501 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP13 1 0.0 1 1667501 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP13 1 1667502 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP15 1 1 1667502 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP15 1 1 1667504 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP16 1 1 1667504 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP16 1 1 1667504 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP16 1 1 1667504 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP16 1 1 1667504 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP16 1 1 1 1667504 03/06/2020 Dark brown gravelly SAND PRAIRIE_AUK_TP16 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6_SO_0260	5	2.6	1667232	03/06/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP12 9	PRAIRIE_AUK_TP12					
9. SO, 0210	8_SO_0090	3	0.9	1667233	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)
PRAIRIE_AUK_TP13	PRAIRIE_AUK_TP12					
0. SOD 0100         4A         1         1667235         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP15         4         1.5         1667237         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP15         5         1.3         1667237         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP15         7, SO_0080         2         0.8         1667237         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP13         4         1.5         1667501         03/06/2020         Dark brown gravelly, sandy           PRAIRIE_AUK_TP13         4         1.5         1667502         03/06/2020         Dark brown gravelly, sandy           PRAIRIE_AUK_TP13         4         1.5         1667502         03/06/2020         Dark brown gravelly, sandy           PRAIRIE_AUK_TP13         5         1.5         1667502         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         2         1.667503         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         5.0         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         0.75	9_SO_0210	4A	2.1	1667234	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP14	PRAIRIE_AUK_TP13					
7. SO 0.150         4         1.5         1667236         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP15         3         1.3         1667237         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP15         2         0.8         1667238         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP12         0.8         1         1667501         03/06/2020         Dark brown gravelly, SAND           PRAIRIE_AUK_TP13         4         1         1667501         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4         1         1667502         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         1         1667503         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         1         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         1         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         1         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         1         1667507         03/06/2020         Dark brown	0_SO_0100	4A	1	1667235	03/06/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP15 8_SO_0130 3 1.3 1667237 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP15 7_SO_0080 2 0.8 1667238 03/06/2020 Dark brown gravelly, clayey SAND PRAIRIE_AUK_TP12 0	PRAIRIE_AUK_TP14					
8_SO_0130         3         1.3         1667237         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP15         7_SO_0080         2         0.8         1667238         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP13         4_SO_0100         3         1         1667501         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4_SO_0200         6         2         1667503         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         2         1667503         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         6         2         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         2         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         2         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         2         1667505         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         3         0.75         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         3         0.7667508	7_SO_0150	4	1.5	1667236	03/06/2020	Dark brown gravelly, sandy CLAY
PRAIRIE_AUK_TP12 7_SO_0080 2 0.8 1667238 03/06/2020 Dark brown gravelly, clayey SAND  PRAIRIE_AUK_TP12 0A_SO_0100 3 1 1667501 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP13 4_SO_0200 6 2 1667503 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP16 1	PRAIRIE_AUK_TP15					
7.50_0080         2         0.8         1667238         03/06/2020         Dark brown gravelly, clayey SAND           PRAIRIE_AUK_TP12         3         1         1667501         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4         1         1667502         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP18         4         5         0.000         0         2         1667503         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         0         0.000         0         1         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         1         0.45         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         0.000         0.75         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         0.75         1667507         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         0.75         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         0.75         1668118         03/0	8_SO_0130	3	1.3	1667237	03/06/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP12         3         1         1667501         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4         50_0100         3         1         1667502         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4         50_0200         6         2         1667503         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         1         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         50_0045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6         50_0045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP17         1         50_0075         3         0.75         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP17         1         50_0075         3         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_BH11         0         50_0300         1         3         1668118         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         2         50_03	PRAIRIE_AUK_TP15					
0A_SO_0100         3         1         1667501         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4_SO_0100         3         1         1667502         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4_SO_0200         6         2         1667503         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         5         0.45         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_01045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_01020         3         1.2         1667506         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP17         1_SO_0075         3         0.75         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_BH11         0.5O_0300         1         3         1668118         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         2         0         0         0         0         0           PRAIRIE_AUK_TP10         0		2	0.8	1667238	03/06/2020	Dark brown gravelly, clayey SAND
PRAIRIE_AUK_TP13						
4_SO_0100         3         1         1667502         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP13         4_SO_0200         6         2         1667503         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         1_SO_0100         3         1         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_0045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_0120         8         1.2         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP17         1_SO_0075         3         0.75         1667507         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         7_SO_0070         3         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         3         1668118         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         1668120         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         1668121		3	1	1667501	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP13         4_SO_0200         6         2         1667503         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         1_SO_0100         3         1         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_0045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_0120         8         1.2         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         3         0.75         1667507         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         7_SO_0070         3         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_BH11         0_SO_0300         1         3         1668118         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         2_SO_0100         4         1         1668119         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         1668120         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10         3         1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AU						
4_SO_0200         6         2         1667503         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP16         1         1667504         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_0045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16         6_SO_0120         8         1.2         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP17         1         0.75         1667507         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         3         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         3         1668118         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         4         1         1668119         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         2_SO_0300         11         3         1668121         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10         3         1668121         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10         3         1668121         03/06/2020         Dark brown gravelly, sandy CLA		3	1	1667502	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP16 1_SO_0100						
1_SO_0100 3 1 1 1667504 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP16 6_SO_0045 3 0.45 1667505 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP16 6_SO_0120 8 1.2 1667506 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP17 1_SO_0075 3 0.75 1667507 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP18 7_SO_0070 3 0.7 1667508 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_BH11 0_SO_0300 1 3 1668118 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP10 2_SO_0100 4 1 1668119 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP10 2_SO_0300 11 3 1668120 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP10 3_SO_0100 3 1 1668121 03/06/2020 Dark brown gravelly, sandy CLAY  PRAIRIE_AUK_TP10 3_SO_0100 3 1 1668121 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP10 3_SO_0100 3 1 1668121 03/06/2020 Dark brown gravelly SAND		6	2	1667503	03/06/2020	Dark brown sandy CLAY
PRAIRIE_AUK_TP16 6_SO_0045 3 0.45 1667505 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP16 6_SO_0120 8 1.2 1667506 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP17 1_SO_0075 3 0.75 1667507 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP18 7_SO_0070 3 0.7 1667508 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_BH11 0_SO_0300 1 3 1668118 03/06/2020 Dark brown sandy CLAY  Dark brown gravelly SAND  Dark brown gravelly SAND  Dark brown gravelly SAND  Dark brown gravelly, sandy CLAY  Dark brown gravelly, sandy CLAY  Dark brown gravelly, sandy CLAY  Dark brown gravelly SAND		_				D 11
6_SO_0045         3         0.45         1667505         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP16 6_SO_0120         8         1.2         1667506         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP17 1_SO_0075         3         0.75         1667507         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18 7_SO_0070         3         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_BH11 0_SO_0300         1         3         1668118         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10 2_SO_0100         4         1         1668119         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10 3_SO_0100         3         1         1668120         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10 3_SO_0100         3         1         1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10 3_SO_0100         3         1         1668121         03/06/2020         Dark brown gravelly SAND		3	1	1667504	03/06/2020	Dark brown gravelly SAND
PRAIRIE_AUK_TP16 6_SO_0120 8 1.2 1667506 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP17 1_SO_0075 3 0.75 1667507 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP18 7_SO_0070 3 0.7 1667508 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_BH11 0_SO_0300 1 3 1668118 03/06/2020 Dark brown sandy CLAY  PRAIRIE_AUK_TP10 2_SO_0100 4 1 1668119 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP10 2_SO_0300 11 3 1668120 03/06/2020 Dark brown gravelly, sandy CLAY  PRAIRIE_AUK_TP10 3_SO_0100 3 1 1668121 03/06/2020 Dark brown gravelly SAND  PRAIRIE_AUK_TP10 3_SO_0100 3 1 1668121 03/06/2020 Dark brown gravelly SAND					/ /	Dad have a see ally CAND
6_SO_0120       8       1.2       1667506       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP17       1       0       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP18       0.7       1667508       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_BH11       0       0.7       1667508       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_BH11       0       0.7       1668118       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP10       0       0.7       1668119       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       0       0.7       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       0       0.7       1668121       0.7		3	0.45	166/505	03/06/2020	Dark prown graveny SAND
PRAIRIE_AUK_TP17         3         0.75         1667507         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP18         7.50_0070         3         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_BH11         0.50_0300         1         3         1668118         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         2.50_0100         4         1         1668119         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         2.50_0300         11         3         1668120         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10         3         1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         1         1668121         03/06/2020         Dark brown gravelly SAND			1.2	1667506	02/06/2020	Dark brown candy CLAV
1_SO_0075       3       0.75       1667507       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP18       7_SO_0070       3       0.7       1667508       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_BH11       0_SO_0300       1       3       1668118       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP10       2_SO_0100       4       1       1668119       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       2_SO_0300       11       3       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND		δ	1.2	166/506	03/06/2020	Dair Diowii Salluy CLAT
PRAIRIE_AUK_TP18         0.7         1667508         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_BH11         0.5O_0300         1         3         1668118         03/06/2020         Dark brown sandy CLAY           PRAIRIE_AUK_TP10         2.5O_0100         4         1         1668119         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         2.5O_0300         11         3         1668120         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10         3         1 1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         3         1 1668121         03/06/2020         Dark brown gravelly SAND		2	0.75	1667507	03/06/2020	Dark brown sandy, CLAY
7_SO_0070       3       0.7       1667508       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_BH11       0       0       0       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP10       0       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       03/06/2020       Dark brown gravelly SAND		3	0.75	100/30/	03/00/2020	Park brown sallay CEAT
PRAIRIE_AUK_BH11       3       1668118       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP10       2_SO_0100       4       1       1668119       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       2_SO_0300       11       3       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND		3	0.7	1667509	03/06/2020	Dark brown sandy CLAY
0_SO_0300       1       3       1668118       03/06/2020       Dark brown sandy CLAY         PRAIRIE_AUK_TP10       2_SO_0100       4       1       1668119       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       2_SO_0300       11       3       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       0       03/06/2020       Dark brown gravelly SAND		3	0.7	1007300	03/00/2020	San
PRAIRIE_AUK_TP10       2_SO_0100       4       1       1668119       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       2_SO_0300       11       3       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       3_SO_0100       3       1       1668121       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       0       03/06/2020       Dark brown gravelly SAND		1	3	1668118	03/06/2020	Dark brown sandy CLAY
2_SO_0100       4       1       1668119       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       2_SO_0300       11       3       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       0       03/06/2020       Dark brown gravelly SAND		-	3	1000110	03/00/2020	
PRAIRIE_AUK_TP10         2_SO_0300         11         3         1668120         03/06/2020         Dark brown gravelly, sandy CLAY           PRAIRIE_AUK_TP10         3_SO_0100         3         1         1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         03/06/2020         Dark brown gravelly SAND		4	1	1668119	03/06/2020	Dark brown gravelly SAND
2_SO_0300       11       3       1668120       03/06/2020       Dark brown gravelly, sandy CLAY         PRAIRIE_AUK_TP10       3       1       1668121       03/06/2020       Dark brown gravelly SAND         PRAIRIE_AUK_TP10       0       03/06/2020       Dark brown gravelly SAND		·	+	1000113	33, 33, 2020	
PRAIRIE_AUK_TP10         3_SO_0100         3         1         1668121         03/06/2020         Dark brown gravelly SAND           PRAIRIE_AUK_TP10         03/06/2020         03/06/2020         Dark brown gravelly SAND		11	3	1668120	03/06/2020	Dark brown gravelly, sandy CLAY
3_SO_0100   3   1   1668121   03/06/2020   Dark brown gravelly SAND					-5, 55, 2525	
PRAIRIE_AUK_TP10		3	1	1668121	03/06/2020	Dark brown gravelly SAND
	PRAIRIE_AUK_TP10		+		-,,	- '
	9_SO_0100	3	1	1668122	03/06/2020	Dark brown gravelly SAND



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Client Ref 4251

Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description			
PRAIRIE_AUK_TP11		•			·			
0_SO_0100	3	1	1668123	03/06/2020	Dark brown gravelly SAND			
PRAIRIE_AUK_TP11		-						
0_SO_0200	7	2	1668124	03/06/2020	Dark brown gravelly, sandy CLAY			
PRAIRIE_AUK_TP11	,		1000121	03,00,2020				
1_SO_0150	4	1.5	1668125	03/06/2020	Dark brown gravelly SAND			
PRAIRIE_AUK_TP11	-	1.5	1008123	03/00/2020	Bulk brown graveny 57445			
2_SO_0150	4	1 -	1669136	02/06/2020	Dark brown gravelly SAND (Possible made ground - brick)			
PRAIRIE_AUK_TP11	4	1.5	1668126	03/06/2020	Dark brown graverry SAND (1 ossible made ground - brick)			
9 SO 0150		4.5	4660427	02/05/2020	Dark brown gravelly SAND			
	3	1.5	1668127	03/06/2020	Dark brown graveny SAND			
PRAIRIE_AUK_TP11	_			/ /	David harring and de CLAV			
9_SO_0250	7	2.5	1668128	03/06/2020	Dark brown sandy CLAY			
PRAIRIE_AUK_TP13								
3_SO_0050	2	0.5	1668129	03/06/2020	Dark brown, gravelly SAND			
PRAIRIE_AUK_TP15								
2_SO_0200	6	2	1668130	03/06/2020	Dark brown gravelly, very sandy CLAY			
PRAIRIE_AUK_TP15								
3_SO_0110	4	1.1	1668131	03/06/2020	Dark brown gravelly SAND			
PRAIRIE_AUK_TP15								
4_SO_0085	3	0.85	1668132	03/06/2020	Dark brown very gravelly SAND			
PRAIRIE_AUK_TP15								
5_SO_0070	3	0.7	1668133	03/06/2020	Dark brown gravelly SAND			
PRAIRIE_AUK_TP16								
0_SO_0075	4	0.75	1668134	03/06/2020	Dark brown gravelly SAND (Possible made ground - brick)			
PRAIRIE_AUK_TP17								
0_SO_0100	4	1	1668135	03/06/2020	Dark brown sandy CLAY			
PRAIRIE_AUK_TP16	-	-			· ·			
4_SO_0070	3	0.7	1668557	03/06/2020	Dark brown gravelly SAND			
PRAIRIE_AUK_TP16		0.7	1000337	03/00/2020				
4_SO_0130	5	1.3	1668558	03/06/2020	Dark brown gravelly, slightly clayey SAND			
PRAIRIE_AUK_TP18	3	1.3	1008338	03/00/2020	Dark brown sandy GRAVEL including odd rootlets (sample matrix outside MCERTS scope of			
4_SO_0030	2	0.3	1669550	02/06/2020	accreditation)			
PRAIRIE_AUK_TP10	2	0.3	1668559	03/06/2020	accreditation)			
6_SO_0100			4660560	02/05/2020	Dark brown gravelly, sandy CLAY			
1	3	1	1668560	03/06/2020	Dark brown graveny, Sandy CLAT			
PRAIRIE_AUK_TP11			1660561	00/05/0000	David haravas prevaille, plavas CANID			
6_SO_0130	3	1.3	1668561	03/06/2020	Dark brown gravelly, clayey SAND			
PRAIRIE_AUK_TP11								
7_SO_0300	8	3	1668562	03/06/2020	Dark brown sandy, clayey GRAVEL (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP11								
8_SO_0120	3	1.2	1668563	03/06/2020	Dark brown gravelly SAND			
PRAIRIE_AUK_TP12								
7_SO_0030	3	0.3	1668564	03/06/2020	Dark brown gravelly SAND (Possible made ground - brick)			
PRAIRIE_AUK_TP12								
7A_SO_0280	3	2.8	1668565	03/06/2020	Brown sandy CLAY			
PRAIRIE_AUK_TP14								
0_SO_0100	3	1	1668566	03/06/2020	Dark brown gravelly, clayey SAND			
PRAIRIE_AUK_TP14								
1_SO_0200	4	2	1668567	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP14								
2_SO_0090	3	0.9	1668568	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP14					·			
2_SO_0150	4	1.5	1668569	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)			
PRAIRIE_AUK_TP14				-, -0, 2020				
3_SO_0080	3	0.8	1668570	03/06/2020	Dark brown gravelly, clayey SAND			
		0.0	1000370	03/00/2020				



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Sample ID	Other ID	Depth	Lab No	Completed	Matrix Description		
PRAIRIE_AUK_TP14							
3_SO_0160	6	1.6	1668571	03/06/2020	Dark brown gravelly, sandy CLAY		
PRAIRIE_AUK_TP15							
1_SO_0120	5	1.2	1668572	03/06/2020	Dark brown gravelly, clayey SAND		
PRAIRIE_AUK_TP13							
9_SO_0110	4	1.1	1668657	03/06/2020	Dark brown very gravelly, sandy CLAY		
PRAIRIE_AUK_TP14					Dark brown very sandy, clayey GRAVEL (sample matrix outside MCERTS scope of		
4_SO_0080	3	0.8	1668869	03/06/2020	accreditation)		
PRAIRIE_AUK_TP11							
2_SO_0210	7	2.1	1669251	03/06/2020	Dark brown sandy GRAVEL (sample matrix outside MCERTS scope of accreditation)		
PRAIRIE_AUK_TP19							
4A_SO_0140	1	1.4	1670142	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)		
PRAIRIE_AUK_TP19							
6A_SO_0140	1	1.4	1670143	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)		
PRAIRIE_AUK_TP20							
1_SO_0360	1	3.6	1670144	03/06/2020	Dark brown gravelly, clayey SAND		
PRAIRIE_AUK_TP19							
3_SO_0080	1	0.8	1670502	03/06/2020	U/S (sample matrix outside MCERTS scope of accreditation)		
PRAIRIE_AUK_BH10							
1_SO_0300	1	3	1675450	03/06/2020	Dark brown sandy CLAY		
PRAIRIE_AUK_BH10							
7_SO_0300	1	3	1675451	03/06/2020	Dark brown sandy CLAY		



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Lab No	1663605
Sample ID	PRAIRIE_AUK_TP132_SO_0130
Depth	1.30
Other ID	4
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	7.7
Arsenic	DETSC 2301#	0.2	mg/kg	5.2
Barium	DETSC 2301#	1.5	mg/kg	220
Beryllium	DETSC 2301#	0.2	mg/kg	0.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	5.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	410
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	36
Iron	DETSC 2301	25	mg/kg	140000
Lead	DETSC 2301#	0.3	mg/kg	88
Magnesium	DETSC 2301*	1	mg/kg	41000
Manganese	DETSC 2301#	20	mg/kg	18000
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	3.9
Nickel	DETSC 2301#	1	mg/kg	17
Silicon	DETSC 2301*	10	mg/kg	42000
Vanadium	DETSC 2301#	0.8	mg/kg	430
Zinc	DETSC 2301#	1	mg/kg	130
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	12.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	17
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663605
Sample ID	PRAIRIE_AUK_TP132_SO_0130
Depth	1.30
Other ID	4
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	4.9
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	43
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	48
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1.1
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.1
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1.9
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	7.7
Aromatic C5-C35	DETSC 3072*	10	mg/kg	12
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	60
EPH (C10-C40)	DETSC 3311#	10	mg/kg	290
PAHs	•	'		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.08
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.6
Anthracene	DETSC 3303	0.03	mg/kg	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.4
Pyrene	DETSC 3303#	0.03	mg/kg	0.91
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.24
Chrysene	DETSC 3303	0.03	mg/kg	0.44
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.44
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.18
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.14
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.14



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663605
Sample ID	PRAIRIE_AUK_TP132_SO_0130
Depth	1.30
Other ID	4
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.19
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	6.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663605
Sample ID	PRAIRIE_AUK_TP132_SO_0130
Depth	1.30
Other ID	4
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663606
Sample ID	PRAIRIE_AUK_TP131_SO_0180
Depth	1.80
Other ID	5
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	9.1
Arsenic	DETSC 2301#	0.2	mg/kg	13
Barium	DETSC 2301#	1.5	mg/kg	1300
Beryllium	DETSC 2301#	0.2	mg/kg	1.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	620
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	100
Iron	DETSC 2301	25	mg/kg	99000
Lead	DETSC 2301#	0.3	mg/kg	46
Magnesium	DETSC 2301*	1	mg/kg	33000
Manganese	DETSC 2301#	20	mg/kg	17000
Mercury	DETSC 2325#	0.05	mg/kg	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	1.5
Nickel	DETSC 2301#	1	mg/kg	12
Silicon	DETSC 2301*	10	mg/kg	46000
Vanadium	DETSC 2301#	0.8	mg/kg	3300
Zinc	DETSC 2301#	1	mg/kg	56
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	12.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	24
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663606
Sample ID	PRAIRIE_AUK_TP131_SO_0180
Depth	1.80
Other ID	5
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	11
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	12
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	12
EPH (C10-C40)	DETSC 3311#	10	mg/kg	68
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.42
Anthracene	DETSC 3303	0.03	mg/kg	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.97
Pyrene	DETSC 3303#	0.03	mg/kg	0.74
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.33
Chrysene	DETSC 3303	0.03	mg/kg	0.40
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.45
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.18
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.22
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663606
Sample ID	PRAIRIE_AUK_TP131_SO_0180
Depth	1.80
Other ID	5
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.16
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663606
Sample ID	PRAIRIE_AUK_TP131_SO_0180
Depth	1.80
Other ID	5
Sample Type	ES
Sampling Date	02/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663734
Sample ID	PRAIRIE_AUK_TP101_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	36000
Antimony	DETSC 2301*	1	mg/kg	1.4
Arsenic	DETSC 2301#	0.2	mg/kg	13
Barium	DETSC 2301#	1.5	mg/kg	390
Beryllium	DETSC 2301#	0.2	mg/kg	4.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	30
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	55
Iron	DETSC 2301	25	mg/kg	18000
Lead	DETSC 2301#	0.3	mg/kg	330
Magnesium	DETSC 2301*	1	mg/kg	23000
Manganese	DETSC 2301#	20	mg/kg	2900
Mercury	DETSC 2325#	0.05	mg/kg	0.25
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0
Nickel	DETSC 2301#	1	mg/kg	9.7
Silicon	DETSC 2301*	10	mg/kg	67000
Vanadium	DETSC 2301#	0.8	mg/kg	74
Zinc	DETSC 2301#	1	mg/kg	170
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	2.4
Organic matter	DETSC 2002#	0.1	%	4.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	850
Sulphur (free)	DETSC 3049#	0.75	mg/kg	120



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Test

Lab No	1663734
Sample ID	PRAIRIE_AUK_TP101_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	19
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	38
Aromatic C5-C35	DETSC 3072*	10	mg/kg	58
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	58
EPH (C10-C40)	DETSC 3311#	10	mg/kg	1100
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.09
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthene	DETSC 3303#	0.03	mg/kg	1.4
Fluorene	DETSC 3303	0.03	mg/kg	1.4
Phenanthrene	DETSC 3303#	0.03	mg/kg	22
Anthracene	DETSC 3303	0.03	mg/kg	2.7
Fluoranthene	DETSC 3303#	0.03	mg/kg	37
Pyrene	DETSC 3303#	0.03	mg/kg	31
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	7.8
Chrysene	DETSC 3303	0.03	mg/kg	7.1
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	6.7
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	2.6
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	3.7
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	2.0
(-/-//-/ - /	1=========	2.20	6,6	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663734
Sample ID	PRAIRIE_AUK_TP101_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.55
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	2.3
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	130



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663734
Sample ID	PRAIRIE_AUK_TP101_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663735
Sample ID	PRAIRIE_AUK_TP101_SO_0220
Depth	2.20
Other ID	9
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Asbestos Quantification         DETSC 1102         0.001         %           Metals         Aluminium         DETSC 2301*         1         mg/kg           Antimony         DETSC 2301*         1         mg/kg           Arsenic         DETSC 2301#         0.2         mg/kg           Barium         DETSC 2301#         1.5         mg/kg           Beryllium         DETSC 2301#         0.2         mg/kg           Boron, Water Soluble         DETSC 231#         0.2         mg/kg           Cadmium         DETSC 2301#         0.1         mg/kg           Chromium         DETSC 2301#         0.1         mg/kg           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg           Copper         DETSC 2301#         0.2         mg/kg           Iron         DETSC 2301         0.2         mg/kg           Magnesium         DETSC 2301#         0.3         mg/kg           Manganese         DETSC 2301#         0.0         mg/kg           Mercury         DETSC 2301#         0.4         mg/kg           Molybdenum         DETSC 2301#         0.4         mg/kg	32000 1.5
Aluminium  Aluminium  DETSC 2301* 1 mg/kg  Antimony  DETSC 2301# 0.2 mg/kg  Barium  DETSC 2301# 1.5 mg/kg  Beryllium  DETSC 2301# 0.2 mg/kg  Boron, Water Soluble  Cadmium  DETSC 2301# 0.1 mg/kg  Chromium  DETSC 2301# 0.1 mg/kg  Chromium, Hexavalent  DETSC 2301# 0.1 mg/kg  Chromium, Hexavalent  DETSC 2301# 0.2 mg/kg  Chromium, Hexavalent  DETSC 2301# 0.2 mg/kg  Chromium, Hexavalent  DETSC 2301# 0.2 mg/kg  Iron  DETSC 2301# 0.2 mg/kg  Iron  DETSC 2301# 0.3 mg/kg  Magnesium  DETSC 2301# 0.3 mg/kg  Magnesium  DETSC 2301# 0.3 mg/kg  Manganese  DETSC 2301# 0.0 mg/kg  Manganese  DETSC 2301# 0.0 mg/kg  Manganese  DETSC 2301# 0.0 mg/kg  Marcury  DETSC 2301# 0.0 mg/kg  Molybdenum  DETSC 2301# 0.4 mg/kg  Nickel  DETSC 2301# 1 mg/kg  Nickel  DETSC 2301# 1 mg/kg  Nickel  DETSC 2301# 0.4 mg/kg  Nickel  DETSC 2301# 0.8 mg/kg  Vanadium  DETSC 2301# 0.8 mg/kg  Zinc  DETSC 2301# 1 mg/kg  Inorganics  Loss on Ignition at 4400C  DETSC 2003# 0.01 %	1.5
Antimony DETSC 2301* 1 mg/kg  Arsenic DETSC 2301# 0.2 mg/kg  Barium DETSC 2301# 1.5 mg/kg  Beryllium DETSC 2301# 0.2 mg/kg  Boron, Water Soluble DETSC 2311# 0.2 mg/kg  Cadmium DETSC 2301# 0.1 mg/kg  Chromium DETSC 2301# 0.15 mg/kg  Chromium, Hexavalent DETSC 2301# 0.2 mg/kg  Copper DETSC 2301# 0.2 mg/kg  Iron DETSC 2301# 0.2 mg/kg  Iron DETSC 2301# 0.3 mg/kg  Magnesium DETSC 2301# 0.3 mg/kg  Manganese DETSC 2301# 20 mg/kg  Mercury DETSC 2301# 20 mg/kg  Molybdenum DETSC 2301# 0.4 mg/kg  Nickel DETSC 2301# 1 mg/kg  Silicon DETSC 2301# 1 mg/kg  Vanadium DETSC 2301# 1 mg/kg  Silicon DETSC 2301# 1 mg/kg  Vanadium DETSC 2301# 1 mg/kg	1.5
Arsenic         DETSC 2301#         0.2         mg/kg           Barium         DETSC 2301#         1.5         mg/kg           Beryllium         DETSC 2301#         0.2         mg/kg           Boron, Water Soluble         DETSC 2311#         0.2         mg/kg           Cadmium         DETSC 2301#         0.1         mg/kg           Chromium         DETSC 2301#         0.15         mg/kg           Chromium, Hexavalent         DETSC 2204*         1         mg/kg           Copper         DETSC 2301#         0.2         mg/kg           Iron         DETSC 2301#         0.2         mg/kg           Magnesium         DETSC 2301#         0.3         mg/kg           Manganese         DETSC 2301#         20         mg/kg           Mercury         DETSC 2301#         0.05         mg/kg           Molybdenum         DETSC 2301#         0.4         mg/kg           Nickel         DETSC 2301#         1         mg/kg           Silicon         DETSC 2301#         0.8         mg/kg           Vanadium         DETSC 2301#         1         mg/kg           Zinc         DETSC 2301#         0.01         %	
Barium	
Beryllium         DETSC 2301#         0.2 mg/kg           Boron, Water Soluble         DETSC 2311#         0.2 mg/kg           Cadmium         DETSC 2301#         0.1 mg/kg           Chromium         DETSC 2301#         0.15 mg/kg           Chromium, Hexavalent         DETSC 2204*         1 mg/kg           Copper         DETSC 2301#         0.2 mg/kg           Iron         DETSC 2301         25 mg/kg           Lead         DETSC 2301#         0.3 mg/kg           Magnesium         DETSC 2301#         1 mg/kg           Mercury         DETSC 2301#         20 mg/kg           Mercury         DETSC 2325#         0.05 mg/kg           Molybdenum         DETSC 2301#         0.4 mg/kg           Nickel         DETSC 2301#         1 mg/kg           Silicon         DETSC 2301#         0.8 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	18
Detail	280
Cadmium         DETSC 2301#         0.1         mg/kg           Chromium         DETSC 2301#         0.15         mg/kg           Chromium, Hexavalent         DETSC 2204*         1         mg/kg           Copper         DETSC 2301#         0.2         mg/kg           Iron         DETSC 2301         25         mg/kg           Lead         DETSC 2301#         0.3         mg/kg           Magnesium         DETSC 2301#         1         mg/kg           Manganese         DETSC 2301#         20         mg/kg           Mercury         DETSC 2325#         0.05         mg/kg           Molybdenum         DETSC 2301#         0.4         mg/kg           Nickel         DETSC 2301#         1         mg/kg           Silicon         DETSC 2301#         1         mg/kg           Vanadium         DETSC 2301#         0.8         mg/kg           Zinc         DETSC 2301#         1         mg/kg           Inorganics         Loss on Ignition at 4400C         DETSC 2003#         0.01         %	4.0
Chromium         DETSC 2301#         0.15         mg/kg           Chromium, Hexavalent         DETSC 2204*         1         mg/kg           Copper         DETSC 2301#         0.2         mg/kg           Iron         DETSC 2301         25         mg/kg           Lead         DETSC 2301#         0.3         mg/kg           Magnesium         DETSC 2301#         1         mg/kg           Manganese         DETSC 2301#         20         mg/kg           Mercury         DETSC 2325#         0.05         mg/kg           Molybdenum         DETSC 2301#         0.4         mg/kg           Nickel         DETSC 2301#         1         mg/kg           Silicon         DETSC 2301#         1         mg/kg           Vanadium         DETSC 2301#         0.8         mg/kg           Zinc         DETSC 2301#         1         mg/kg           Inorganics         Loss on Ignition at 4400C         DETSC 2003#         0.01         %	4.3
Chromium, Hexavalent         DETSC 2204*         1 mg/kg           Copper         DETSC 2301#         0.2 mg/kg           Iron         DETSC 2301         25 mg/kg           Lead         DETSC 2301#         0.3 mg/kg           Magnesium         DETSC 2301*         1 mg/kg           Manganese         DETSC 2301#         20 mg/kg           Mercury         DETSC 2325#         0.05 mg/kg           Molybdenum         DETSC 2301#         0.4 mg/kg           Nickel         DETSC 2301#         1 mg/kg           Silicon         DETSC 2301#         10 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	0.5
Copper         DETSC 2301#         0.2 mg/kg           Iron         DETSC 2301         25 mg/kg           Lead         DETSC 2301#         0.3 mg/kg           Magnesium         DETSC 2301*         1 mg/kg           Manganese         DETSC 2301#         20 mg/kg           Mercury         DETSC 2325#         0.05 mg/kg           Molybdenum         DETSC 2301#         0.4 mg/kg           Nickel         DETSC 2301#         1 mg/kg           Silicon         DETSC 2301#         10 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	39
DETSC 2301   25 mg/kg	< 1.0
Lead         DETSC 2301#         0.3         mg/kg           Magnesium         DETSC 2301*         1         mg/kg           Manganese         DETSC 2301#         20         mg/kg           Mercury         DETSC 2325#         0.05         mg/kg           Molybdenum         DETSC 2301#         0.4         mg/kg           Nickel         DETSC 2301#         1         mg/kg           Silicon         DETSC 2301#         10         mg/kg           Vanadium         DETSC 2301#         0.8         mg/kg           Zinc         DETSC 2301#         1         mg/kg           Inorganics         Loss on Ignition at 4400C         DETSC 2003#         0.01         %	54
Magnesium         DETSC 2301*         1 mg/kg           Manganese         DETSC 2301#         20 mg/kg           Mercury         DETSC 2325#         0.05 mg/kg           Molybdenum         DETSC 2301#         0.4 mg/kg           Nickel         DETSC 2301#         1 mg/kg           Silicon         DETSC 2301*         10 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	31000
Manganese         DETSC 2301#         20 mg/kg           Mercury         DETSC 2325#         0.05 mg/kg           Molybdenum         DETSC 2301#         0.4 mg/kg           Nickel         DETSC 2301#         1 mg/kg           Silicon         DETSC 2301*         10 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	89
Mercury         DETSC 2325#         0.05         mg/kg           Molybdenum         DETSC 2301#         0.4         mg/kg           Nickel         DETSC 2301#         1         mg/kg           Silicon         DETSC 2301*         10         mg/kg           Vanadium         DETSC 2301#         0.8         mg/kg           Zinc         DETSC 2301#         1         mg/kg           Inorganics           Loss on Ignition at 440oC         DETSC 2003#         0.01         %	14000
Molybdenum         DETSC 2301#         0.4         mg/kg           Nickel         DETSC 2301#         1         mg/kg           Silicon         DETSC 2301*         10         mg/kg           Vanadium         DETSC 2301#         0.8         mg/kg           Zinc         DETSC 2301#         1         mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	1500
Nickel         DETSC 2301#         1 mg/kg           Silicon         DETSC 2301*         10 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	0.24
Silicon         DETSC 2301*         10 mg/kg           Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	1.6
Vanadium         DETSC 2301#         0.8 mg/kg           Zinc         DETSC 2301#         1 mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	23
Zinc         DETSC 2301#         1         mg/kg           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %	120000
InorganicsLoss on Ignition at 440oCDETSC 2003#0.01%	91
Loss on Ignition at 440oC DETSC 2003# 0.01 %	200
pH	10.1
Calorific Value DETSC 5008 1 MJ/kg	
Cyanide, Total DETSC 2130# 0.1 mg/kg	0.2
Cyanide, Free DETSC 2130# 0.1 mg/kg	< 0.1
Thiocyanate DETSC 2130# 0.6 mg/kg	0.7
Organic matter DETSC 2002# 0.1 %	2.8
Sulphate Aqueous Extract as SO4 DETSC 2076# 10 mg/l	590
Sulphur (free) DETSC 3049# 0.75 mg/kg	16



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663735
Sample ID	PRAIRIE_AUK_TP101_SO_0220
Depth	2.20
Other ID	9
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	2.7
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	3.6
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	20
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	27
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1.5
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	16
Aromatic C5-C35	DETSC 3072*	10	mg/kg	18
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	45
EPH (C10-C40)	DETSC 3311#	10	mg/kg	110
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.08
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.15
Fluorene	DETSC 3303	0.03	mg/kg	0.11
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.1
Anthracene	DETSC 3303	0.03	mg/kg	0.21
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.4
Pyrene	DETSC 3303#	0.03	mg/kg	1.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.39
Chrysene	DETSC 3303	0.03	mg/kg	0.49
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.36
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.15
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.23
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663735
Sample ID	PRAIRIE_AUK_TP101_SO_0220
Depth	2.20
Other ID	9
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	5.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663735
Sample ID	PRAIRIE_AUK_TP101_SO_0220
Depth	2.20
Other ID	9
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663736
Sample ID	PRAIRIE_AUK_TP104_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	31000
Antimony	DETSC 2301*	1	mg/kg	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	23
Barium	DETSC 2301#	1.5	mg/kg	390
Beryllium	DETSC 2301#	0.2	mg/kg	3.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	61
Iron	DETSC 2301	25	mg/kg	56000
Lead	DETSC 2301#	0.3	mg/kg	110
Magnesium	DETSC 2301*	1	mg/kg	25000
Manganese	DETSC 2301#	20	mg/kg	7700
Mercury	DETSC 2325#	0.05	mg/kg	0.34
Molybdenum	DETSC 2301#	0.4	mg/kg	1.4
Nickel	DETSC 2301#	1	mg/kg	21
Silicon	DETSC 2301*	10	mg/kg	64000
Vanadium	DETSC 2301#	0.8	mg/kg	290
Zinc	DETSC 2301#	1	mg/kg	180
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	490
Sulphur (free)	DETSC 3049#	0.75	mg/kg	5.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663736
Sample ID	PRAIRIE_AUK_TP104_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	120
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.05
Fluorene	DETSC 3303	0.03	mg/kg	0.06
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.1
Anthracene	DETSC 3303	0.03	mg/kg	0.14
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.9
Pyrene	DETSC 3303#	0.03	mg/kg	1.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.66
Chrysene	DETSC 3303	0.03	mg/kg	0.79
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.75
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.31
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.43
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.20



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663736
Sample ID	PRAIRIE_AUK_TP104_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.27
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	8.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663736
Sample ID	PRAIRIE_AUK_TP104_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663737
Sample ID	PRAIRIE_AUK_TP105_SO_0250
Depth	2.50
Other ID	11
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	16000
Antimony	DETSC 2301*	1	mg/kg	2.0
Arsenic	DETSC 2301#	0.2	mg/kg	14
Barium	DETSC 2301#	1.5	mg/kg	400
Beryllium	DETSC 2301#	0.2	mg/kg	1.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	38
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	44
Iron	DETSC 2301	25	mg/kg	46000
Lead	DETSC 2301#	0.3	mg/kg	45
Magnesium	DETSC 2301*	1	mg/kg	7900
Manganese	DETSC 2301#	20	mg/kg	1100
Mercury	DETSC 2325#	0.05	mg/kg	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	1.1
Nickel	DETSC 2301#	1	mg/kg	38
Silicon	DETSC 2301*	10	mg/kg	180000
Vanadium	DETSC 2301#	0.8	mg/kg	48
Zinc	DETSC 2301#	1	mg/kg	160
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.6
Organic matter	DETSC 2002#	0.1	%	1.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	770
Sulphur (free)	DETSC 3049#	0.75	mg/kg	8.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663737
Sample ID	PRAIRIE_AUK_TP105_SO_0250
Depth	2.50
Other ID	11
Sample Type	ES
<b>Sampling Date</b>	01/04/2020
Sampling Time	n/s

Petroleum Hydrocarbons         Aliphatic C5-C6         DETSC 3321*         0.01         mg/kg         < 0.01					11/3
Aliphatic C5-C6     Aliphatic C6-C8     Aliphatic C6-C8     DETSC 3321*	Test	Method	LOD	Units	
Aliphatic C6-C8     Aliphatic C8-C10     Aliphatic C8-C10     Aliphatic C8-C10     Aliphatic C10-C12     DETSC 3321*     O.01     Mg/kg     < 0.01 Aliphatic C10-C12     DETSC 3072#     1.5     mg/kg     < 1.5     Mg/kg     < 1.5 Aliphatic C10-C12     DETSC 3072#     1.5     mg/kg     < 1.5 Aliphatic C16-C21     DETSC 3072#     1.5     mg/kg     < 1.5 Aliphatic C16-C21     DETSC 3072#     1.5 Mg/kg     < 1.5 Aliphatic C16-C21     DETSC 3072#     1.5 Mg/kg     < 1.5 Aliphatic C21-C35     DETSC 3072#     10 Mg/kg     < 1.0 Aromatic C5-C35     DETSC 3072*     10 Mg/kg     < 0.01 Aromatic C7-C8     DETSC 3321*     0.01 Mg/kg     < 0.01 Aromatic C8-C10     DETSC 3321*     0.01 Mg/kg     < 0.01 Aromatic C10-C12     DETSC 3072#     0.9 Mg/kg     0.01 Aromatic C10-C12     DETSC 3072#     0.9 Mg/kg     0.01 Aromatic C10-C12     DETSC 3072#     0.5 Mg/kg     3.1 Aromatic C10-C12     DETSC 3072#     0.6 Mg/kg     7.6 Aromatic C5-C35     DETSC 3072*     10 Mg/kg     7.6 Aromatic C5-C35     DETSC 3072*     10 Mg/kg     7.6 Aromatic C9-C35     DETSC 3072*     10 Mg/kg     7.8 PHAI/Aro Total     DETSC 3072*     10 Mg/kg     7.8 PAHS  PAHS  PAHS  PAHS  PAHS  PAHS  PAHS  PAHS  PAHS  PAHOHAIPHONE  DETSC 3303# DO.3 Mg/kg     0.06 Acenaphthene  DETSC 3303# DETSC 3303# DO.3 Mg/kg     0.05 Acenaphthene  DETSC 3303# DETSC 3303# DO.3 Mg/kg     0.05 Acenaphthene  DETSC 3303# DETSC 3303# DO.3 Mg/kg     0.57 Phenanthrene  DETSC 3303# DETSC 330# DETSC 330# DO.3 Mg/kg     0.57 Phenanthrene  DETSC 3303# DETSC 330# DO.3 Mg/kg     0.59 Benzo(b)fluoranthene  DETSC 3303# DETSC 330# DETSC 330# DO.3 Mg/kg     0.59 Benzo(b)fluoranthene DETSC 3308# DETSC 3309# DETSC 3309# DO.3 Mg/kg DO.3 Mg/kg DO.3 DETSC 3309# DETSC 3309# DO.3 Mg/kg DO.3 DETSC 3309# DETSC 3309# DETSC 3309# DO.3 Mg/kg DO.3 DETSC 3309# DETSC 3	-				
Aliphatic C8-C10	•				
Aliphatic C10-C12	Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C12-C16	Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C16-C21	Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C5-C35	Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aromatic C5-C7 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C7-C8 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C8-C10 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C8-C10 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C10-C12 DETSC 3072# 0.9 mg/kg  2.1 Aromatic C12-C16 DETSC 3072# 0.5 mg/kg  3.1 Aromatic C16-C21 DETSC 3072# 0.6 mg/kg  7.6 Aromatic C21-C35 DETSC 3072# 1.4 mg/kg  9.7 Aromatic C21-C35 DETSC 3072* 10 mg/kg  2.3 TPH Ali/Aro Total DETSC 3072* 10 mg/kg  2.3 TPH Ali/Aro Total DETSC 3072* 10 mg/kg  2.3 TPH Ali/Aro Total DETSC 3072* 10 mg/kg  2.3 EPH (C10-C40) DETSC 3311# 10 mg/kg  78  PAHS  Naphthalene DETSC 3303# 0.03 mg/kg  0.06 Acenaphthylene DETSC 3303# 0.03 mg/kg  0.62 Fluorene DETSC 3303# 0.03 mg/kg  0.57 Phenanthrene DETSC 3303# 0.03 mg/kg  0.57 Phenanthrene DETSC 3303# 0.03 mg/kg  0.55 Benzo(a)anthracene DETSC 3303# 0.03 mg/kg  0.53 Benzo(a)pyrene DETSC 3303# 0.03 mg/kg  0.74 Chrysene DETSC 3303# 0.03 mg/kg  0.74 Chrysene DETSC 3303# 0.03 mg/kg  0.74 Chrysene DETSC 3303# 0.03 mg/kg  0.75 Benzo(k)fluoranthene DETSC 3303# 0.03 mg/kg  0.75 Benzo(k)fluoranthene DETSC 3303# 0.03 mg/kg  0.75	Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aromatic C7-C8         DETSC 3321*         0.01         mg/kg         < 0.01           Aromatic C8-C10         DETSC 3321*         0.01         mg/kg         < 0.01	Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C8-C10	Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C12-C16	Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C16-C21         DETSC 3072#         0.6         mg/kg         7.6           Aromatic C21-C35         DETSC 3072#         1.4         mg/kg         9.7           Aromatic C5-C35         DETSC 3072*         10         mg/kg         23           TPH Ali/Aro Total         DETSC 3072*         10         mg/kg         23           EPH (C10-C40)         DETSC 3311#         10         mg/kg         78           PAHS           Naphthalene         DETSC 3303#         0.03         mg/kg         0.06           Acenaphthylene         DETSC 3303#         0.03         mg/kg         0.03           Acenaphthene         DETSC 3303#         0.03         mg/kg         0.62           Fluorene         DETSC 3303#         0.03         mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.57           Anthracene         DETSC 3303#         0.03         mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.53           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303#         0.03	Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	2.1
Aromatic C21-C35	Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	3.1
Aromatic C5-C35	Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	7.6
TPH Ali/Aro Total         DETSC 3072*         10 mg/kg         23           EPH (C10-C40)         DETSC 3311#         10 mg/kg         78           PAHs           Naphthalene         DETSC 3303#         0.03 mg/kg         0.06           Acenaphthylene         DETSC 3303#         0.03 mg/kg         0.62           Fluorene         DETSC 3303         0.03 mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03 mg/kg         3.1           Anthracene         DETSC 3303#         0.03 mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03 mg/kg         3.0           Pyrene         DETSC 3303#         0.03 mg/kg         3.0           Benzo(a)anthracene         DETSC 3303#         0.03 mg/kg         0.74           Chrysene         DETSC 3303#         0.03 mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03 mg/kg         0.85           Benzo(k)fluoranthene         DETSC 3303#         0.03 mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03 mg/kg         0.30	Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	9.7
EPH (C10-C40)         DETSC 3311#         10         mg/kg         78           PAHs           Naphthalene         DETSC 3303#         0.03         mg/kg         0.06           Acenaphthylene         DETSC 3303#         0.03         mg/kg         0.62           Fluorene         DETSC 3303#         0.03         mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.53           Anthracene         DETSC 3303#         0.03         mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03         mg/kg         3.0           Pyrene         DETSC 3303#         0.03         mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303#         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03	Aromatic C5-C35	DETSC 3072*	10	mg/kg	23
PAHs         DETSC 3303#         0.03         mg/kg         0.06           Acenaphthylene         DETSC 3303#         0.03         mg/kg         < 0.03	TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	23
Naphthalene         DETSC 3303#         0.03         mg/kg         0.06           Acenaphthylene         DETSC 3303#         0.03         mg/kg         < 0.03	EPH (C10-C40)	DETSC 3311#	10	mg/kg	78
Acenaphthylene         DETSC 3303#         0.03         mg/kg         < 0.03           Acenaphthene         DETSC 3303#         0.03         mg/kg         0.62           Fluorene         DETSC 3303         0.03         mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03         mg/kg         3.1           Anthracene         DETSC 3303#         0.03         mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03         mg/kg         3.0           Pyrene         DETSC 3303#         0.03         mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303#         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	PAHs				
Acenaphthene         DETSC 3303#         0.03         mg/kg         0.62           Fluorene         DETSC 3303         0.03         mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03         mg/kg         3.1           Anthracene         DETSC 3303         0.03         mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03         mg/kg         3.0           Pyrene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303#         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Naphthalene	DETSC 3303#	0.03	mg/kg	0.06
Fluorene         DETSC 3303         0.03         mg/kg         0.57           Phenanthrene         DETSC 3303#         0.03         mg/kg         3.1           Anthracene         DETSC 3303         0.03         mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03         mg/kg         3.0           Pyrene         DETSC 3303#         0.03         mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Phenanthrene         DETSC 3303#         0.03 mg/kg         3.1           Anthracene         DETSC 3303         0.03 mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03 mg/kg         3.0           Pyrene         DETSC 3303#         0.03 mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03 mg/kg         0.74           Chrysene         DETSC 3303         0.03 mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03 mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03 mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03 mg/kg         0.55	Acenaphthene	DETSC 3303#	0.03		0.62
Anthracene         DETSC 3303         0.03         mg/kg         0.53           Fluoranthene         DETSC 3303#         0.03         mg/kg         3.0           Pyrene         DETSC 3303#         0.03         mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Fluorene	DETSC 3303	0.03	mg/kg	0.57
Fluoranthene         DETSC 3303#         0.03         mg/kg         3.0           Pyrene         DETSC 3303#         0.03         mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Phenanthrene	DETSC 3303#	0.03	mg/kg	3.1
Pyrene         DETSC 3303#         0.03 mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03 mg/kg         0.74           Chrysene         DETSC 3303         0.03 mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03 mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03 mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03 mg/kg         0.55	Anthracene	DETSC 3303	0.03	mg/kg	0.53
Pyrene         DETSC 3303#         0.03         mg/kg         2.3           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Fluoranthene	DETSC 3303#	0.03	mg/kg	3.0
Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.74           Chrysene         DETSC 3303         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Pyrene	DETSC 3303#	0.03		2.3
Chrysene         DETSC 3303         0.03         mg/kg         0.85           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Benzo(a)anthracene	DETSC 3303#	0.03		0.74
Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.92           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Chrysene	DETSC 3303	0.03		0.85
Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.30           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Benzo(b)fluoranthene	DETSC 3303#	0.03		0.92
Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.55	Benzo(k)fluoranthene	DETSC 3303#	0.03		0.30
Indeno(1,2,3-c,d)pyrene DETSC 3303# 0.03 mg/kg 0.28	Benzo(a)pyrene	DETSC 3303#	0.03		0.55
	Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.28



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663737
Sample ID	PRAIRIE_AUK_TP105_SO_0250
Depth	2.50
Other ID	11
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.35
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	14



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663737
Sample ID	PRAIRIE_AUK_TP105_SO_0250
Depth	2.50
Other ID	11
Sample Type	ES
Sampling Date	01/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663978
Sample ID	PRAIRIE_AUK_BH104_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	03/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	9700
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	5.9
Barium	DETSC 2301#	1.5	mg/kg	120
Beryllium	DETSC 2301#	0.2	mg/kg	0.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	20
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	19
Iron	DETSC 2301	25	mg/kg	24000
Lead	DETSC 2301#	0.3	mg/kg	11
Magnesium	DETSC 2301*	1	mg/kg	11000
Manganese	DETSC 2301#	20	mg/kg	450
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8
Nickel	DETSC 2301#	1	mg/kg	23
Silicon	DETSC 2301*	10	mg/kg	120000
Vanadium	DETSC 2301#	0.8	mg/kg	28
Zinc	DETSC 2301#	1	mg/kg	48
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	100
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1663978
Sample ID	PRAIRIE_AUK_BH104_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	03/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663978
Sample ID	PRAIRIE_AUK_BH104_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	03/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1663978
Sample ID	PRAIRIE_AUK_BH104_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	03/04/2020
Sampling Time	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	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665133
Sample ID	PRAIRIE_AUK_TP172_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	1.9
Arsenic	DETSC 2301#	0.2	mg/kg	20
Barium	DETSC 2301#	1.5	mg/kg	650
Beryllium	DETSC 2301#	0.2	mg/kg	1.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	7.7
Cadmium	DETSC 2301#	0.1	mg/kg	1.4
Chromium	DETSC 2301#	0.15	mg/kg	19
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	95
Iron	DETSC 2301	25	mg/kg	34000
Lead	DETSC 2301#	0.3	mg/kg	120
Magnesium	DETSC 2301*	1	mg/kg	8800
Manganese	DETSC 2301#	20	mg/kg	38000
Mercury	DETSC 2325#	0.05	mg/kg	4.1
Molybdenum	DETSC 2301#	0.4	mg/kg	2.7
Nickel	DETSC 2301#	1	mg/kg	25
Silicon	DETSC 2301*	10	mg/kg	80000
Vanadium	DETSC 2301#	0.8	mg/kg	39
Zinc	DETSC 2301#	1	mg/kg	280
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	52
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	3.6
Organic matter	DETSC 2002#	0.1	%	4.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	450
Sulphur (free)	DETSC 3049#	0.75	mg/kg	15



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665133
Sample ID	PRAIRIE_AUK_TP172_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	2.3
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	21
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	33
Aromatic C5-C35	DETSC 3072*	10	mg/kg	57
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	57
EPH (C10-C40)	DETSC 3311#	10	mg/kg	360
PAHs		•		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.35
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.92
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.99
Fluorene	DETSC 3303	0.03	mg/kg	1.6
Phenanthrene	DETSC 3303#	0.03	mg/kg	8.0
Anthracene	DETSC 3303	0.03	mg/kg	8.0
Fluoranthene	DETSC 3303#	0.03	mg/kg	12
Pyrene	DETSC 3303#	0.03	mg/kg	11
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	6.5
Chrysene	DETSC 3303	0.03	mg/kg	4.8
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	5.6
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	2.8
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	3.9
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	2.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665133
Sample ID	PRAIRIE_AUK_TP172_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.61
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	2.9
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	72



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665133
Sample ID	PRAIRIE_AUK_TP172_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	18000
Antimony	DETSC 2301*	1	mg/kg	3.7
Arsenic	DETSC 2301#	0.2	mg/kg	13
Barium	DETSC 2301#	1.5	mg/kg	350
Beryllium	DETSC 2301#	0.2	mg/kg	2.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	130
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	54
Iron	DETSC 2301	25	mg/kg	57000
Lead	DETSC 2301#	0.3	mg/kg	1500
Magnesium	DETSC 2301*	1	mg/kg	12000
Manganese	DETSC 2301#	20	mg/kg	8400
Mercury	DETSC 2325#	0.05	mg/kg	0.37
Molybdenum	DETSC 2301#	0.4	mg/kg	1.8
Nickel	DETSC 2301#	1	mg/kg	18
Silicon	DETSC 2301*	10	mg/kg	79000
Vanadium	DETSC 2301#	0.8	mg/kg	280
Zinc	DETSC 2301#	1	mg/kg	170
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	6.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.9
Organic matter	DETSC 2002#	0.1	%	3.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	390
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1000



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
<b>Sampling Date</b>	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.13
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	2.1
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	93
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	350
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	67
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	510
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	0.15
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.22
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	1.3
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	250
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	2100
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	830
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	210
Aromatic C5-C35	DETSC 3072*	10	mg/kg	3400
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	3900
EPH (C10-C40)	DETSC 3311#	10	mg/kg	10000
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	24
Acenaphthylene	DETSC 3303#	0.03	mg/kg	19
Acenaphthene	DETSC 3303#	0.03	mg/kg	98
Fluorene	DETSC 3303	0.03	mg/kg	74
Phenanthrene	DETSC 3303#	0.03	mg/kg	98
Anthracene	DETSC 3303	0.03	mg/kg	30
Fluoranthene	DETSC 3303#	0.03	mg/kg	41
Pyrene	DETSC 3303#	0.03	mg/kg	30
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	13
Chrysene	DETSC 3303	0.03	mg/kg	12
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	12
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	59
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	120
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	53



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	15
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	64
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	760



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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	5.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665135
Sample ID	PRAIRIE_AUK_TP175_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	14000
Antimony	DETSC 2301*	1	mg/kg	1.2
Arsenic	DETSC 2301#	0.2	mg/kg	8.4
Barium	DETSC 2301#	1.5	mg/kg	340
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	28
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	31
Iron	DETSC 2301	25	mg/kg	35000
Lead	DETSC 2301#	0.3	mg/kg	30
Magnesium	DETSC 2301*	1	mg/kg	6000
Manganese	DETSC 2301#	20	mg/kg	900
Mercury	DETSC 2325#	0.05	mg/kg	0.19
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	34
Silicon	DETSC 2301*	10	mg/kg	180000
Vanadium	DETSC 2301#	0.8	mg/kg	33
Zinc	DETSC 2301#	1	mg/kg	83
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	35
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665135
Sample ID	PRAIRIE_AUK_TP175_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

				11/3	
Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.37	
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	7.2	
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	31	
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	39	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	0.48	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.24	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.64	
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	85	
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	310	
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	160	
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	96	
Aromatic C5-C35	DETSC 3072*	10	mg/kg	650	
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	690	
EPH (C10-C40)	DETSC 3311#	10	mg/kg	1200	
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	440	
Acenaphthylene	DETSC 3303#	0.03	mg/kg	31	
Acenaphthene	DETSC 3303#	0.03	mg/kg	340	
Fluorene	DETSC 3303	0.03	mg/kg	220	
Phenanthrene	DETSC 3303#	0.03	mg/kg	290	
Anthracene	DETSC 3303	0.03	mg/kg	53	
Fluoranthene	DETSC 3303#	0.03	mg/kg	87	
Pyrene	DETSC 3303#	0.03	mg/kg	62	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	27	
Chrysene	DETSC 3303	0.03	mg/kg	23	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	23	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	10	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	20	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	8.6	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665135
Sample ID	PRAIRIE_AUK_TP175_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Method	LOD	Units	
DETSC 3303#	0.03	mg/kg	2.5
DETSC 3303#	0.03	mg/kg	10
DETSC 3303	0.1	mg/kg	1700
	DETSC 3303# DETSC 3303#	DETSC 3303# 0.03 DETSC 3303# 0.03	DETSC 3303# 0.03 mg/kg DETSC 3303# 0.03 mg/kg



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665135
Sample ID	PRAIRIE_AUK_TP175_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665136
Sample ID	PRAIRIE_AUK_TP178_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	16000
Antimony	DETSC 2301*	1	mg/kg	2.4
Arsenic	DETSC 2301#	0.2	mg/kg	18
Barium	DETSC 2301#	1.5	mg/kg	250
Beryllium	DETSC 2301#	0.2	mg/kg	2.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	18
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	91
Iron	DETSC 2301	25	mg/kg	70000
Lead	DETSC 2301#	0.3	mg/kg	70
Magnesium	DETSC 2301*	1	mg/kg	5900
Manganese	DETSC 2301#	20	mg/kg	670
Mercury	DETSC 2325#	0.05	mg/kg	0.13
Molybdenum	DETSC 2301#	0.4	mg/kg	3.6
Nickel	DETSC 2301#	1	mg/kg	41
Silicon	DETSC 2301*	10	mg/kg	66000
Vanadium	DETSC 2301#	0.8	mg/kg	96
Zinc	DETSC 2301#	1	mg/kg	160
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	26
рН	DETSC 2008#		рН	8.0
Calorific Value	DETSC 5008	1	MJ/kg	13.5
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	12
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	61
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665136
Sample ID	PRAIRIE_AUK_TP178_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

		Jup	اء م	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09
Fluorene	DETSC 3303	0.03	mg/kg	0.09
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.12
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Pyrene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.07
Chrysene	DETSC 3303	0.03	mg/kg	0.06
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.04
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665136
Sample ID	PRAIRIE_AUK_TP178_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.76



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665136
Sample ID	PRAIRIE_AUK_TP178_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665137
Sample ID	PRAIRIE_AUK_BH106_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	6.4
Barium	DETSC 2301#	1.5	mg/kg	160
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	52
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32
Iron	DETSC 2301	25	mg/kg	32000
Lead	DETSC 2301#	0.3	mg/kg	20
Magnesium	DETSC 2301*	1	mg/kg	14000
Manganese	DETSC 2301#	20	mg/kg	1200
Mercury	DETSC 2325#	0.05	mg/kg	0.78
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	25
Silicon	DETSC 2301*	10	mg/kg	140000
Vanadium	DETSC 2301#	0.8	mg/kg	150
Zinc	DETSC 2301#	1	mg/kg	69
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	310
Sulphur (free)	DETSC 3049#	0.75	mg/kg	0.92



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665137
Sample ID	PRAIRIE_AUK_BH106_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

		-		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons	Г	Г		
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.11
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.13
Fluorene	DETSC 3303	0.03	mg/kg	0.12
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.22
Anthracene	DETSC 3303	0.03	mg/kg	0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.13
Pyrene	DETSC 3303#	0.03	mg/kg	0.10
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Chrysene	DETSC 3303	0.03	mg/kg	0.05
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665137
Sample ID	PRAIRIE_AUK_BH106_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.97



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665137
Sample ID	PRAIRIE_AUK_BH106_SO_0550
Depth	5.50
Other ID	1
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665138
Sample ID	PRAIRIE_AUK_TP107_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	4.8
Arsenic	DETSC 2301#	0.2	mg/kg	33
Barium	DETSC 2301#	1.5	mg/kg	270
Beryllium	DETSC 2301#	0.2	mg/kg	2.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.3
Cadmium	DETSC 2301#	0.1	mg/kg	1.4
Chromium	DETSC 2301#	0.15	mg/kg	90
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	120
Iron	DETSC 2301	25	mg/kg	87000
Lead	DETSC 2301#	0.3	mg/kg	120
Magnesium	DETSC 2301*	1	mg/kg	7400
Manganese	DETSC 2301#	20	mg/kg	3200
Mercury	DETSC 2325#	0.05	mg/kg	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	4.0
Nickel	DETSC 2301#	1	mg/kg	58
Silicon	DETSC 2301*	10	mg/kg	50000
Vanadium	DETSC 2301#	0.8	mg/kg	280
Zinc	DETSC 2301#	1	mg/kg	350
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	13
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	200
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665138
Sample ID	PRAIRIE_AUK_TP107_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.04
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.07
Fluorene	DETSC 3303	0.03	mg/kg	0.06
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.42
Anthracene	DETSC 3303	0.03	mg/kg	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.2
Pyrene	DETSC 3303#	0.03	mg/kg	1.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.71
Chrysene	DETSC 3303	0.03	mg/kg	0.66
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.0
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.41
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.54
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.31



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665138
Sample ID	PRAIRIE_AUK_TP107_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.10
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.35
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665138
Sample ID	PRAIRIE_AUK_TP107_SO_0180
Depth	1.80
Other ID	6
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665139
Sample ID	PRAIRIE_AUK_TP107_SO_0080
Depth	0.80
Other ID	11
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	9.2
Barium	DETSC 2301#	1.5	mg/kg	290
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	25
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23
Iron	DETSC 2301	25	mg/kg	33000
Lead	DETSC 2301#	0.3	mg/kg	36
Magnesium	DETSC 2301*	1	mg/kg	3800
Manganese	DETSC 2301#	20	mg/kg	440
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7
Nickel	DETSC 2301#	1	mg/kg	30
Silicon	DETSC 2301*	10	mg/kg	190000
Vanadium	DETSC 2301#	0.8	mg/kg	40
Zinc	DETSC 2301#	1	mg/kg	98
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	22
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	270
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75
	_			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665139
Sample ID	PRAIRIE_AUK_TP107_SO_0080
Depth	0.80
Other ID	11
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Aliphatic C5-C6	_				11/3
Aliphatic C5-C6	Test	Method	LOD	Units	
Aliphatic C6-C8 Aliphatic C8-C10 DETSC 3321* O.01 mg/kg O.01 Aliphatic C10-C12 DETSC 3072# DETSC 3072* DETSC 3072# DETSC 3072*					
Aliphatic C8-C10	-				
Aliphatic C10-C12		DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C12-C16     DETSC 3072# 1.2 mg/kg	Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C16-C21	Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C5-C35	Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aromatic C5-C7 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C7-C8 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C8-C10 DETSC 3321* 0.01 mg/kg < 0.01 Aromatic C10-C12 DETSC 3072# 0.9 mg/kg < 0.9 Aromatic C10-C12 DETSC 3072# 0.5 mg/kg < 0.5 Aromatic C12-C16 DETSC 3072# 0.6 mg/kg < 0.6 Aromatic C16-C21 DETSC 3072# 1.4 mg/kg < 0.6 Aromatic C21-C35 DETSC 3072# 1.4 mg/kg < 1.4 Aromatic C5-C35 DETSC 3072* 10 mg/kg < 10 Aromatic C5-C35 DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3072* 10 mg/kg < 10 TPH Ali/Aro Total DETSC 3003# 0.03 mg/kg < 0.23 DETSC 3303# 0.03 mg/kg < 0.24 DETSC 3303# 0.03 mg/kg < 0.14 DETSC 3303# 0.03 mg/kg < 0.44 Anthracene DETSC 3303# 0.03 mg/kg < 0.07 TPH DETSC 3303# 0.03 mg/kg < 0.07 TPH DETSC 3303# 0.03 mg/kg < 0.07 DETSC 3303# 0.03 mg/kg < 0.07 DETSC 3303# 0.03 mg/kg < 0.08 DETSC 3303# 0.03 mg/kg < 0.28 DEDSC 3003# 0.03 mg/kg < 0.32 DETSC 3003# 0.03 mg/kg < 0.32 DETSC 3003# 0.03 mg/kg < 0.32 DETSC 3003# 0.03 mg/kg < 0.32	Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aromatic C7-C8 Aromatic C8-C10 DETSC 3321* DETSC 3321* DETSC 3072# DETSC 3072* DETSC 3073* DETSC 3074*	Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C8-C10	Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C12-C16	Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C16-C21	Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C21-C35	Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C5-C35	Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
TPH Ali/Aro Total         DETSC 3072*         10 mg/kg         < 10           EPH (C10-C40)         DETSC 3311#         10 mg/kg         < 10	Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
EPH (C10-C40)         DETSC 3311#         10         mg/kg         < 10           PAHs           Naphthalene         DETSC 3303#         0.03         mg/kg         0.23           Acenaphthylene         DETSC 3303#         0.03         mg/kg         0.14           Acenaphthene         DETSC 3303#         0.03         mg/kg         0.17           Pluorene         DETSC 3303         0.03         mg/kg         0.44           Anthracene         DETSC 3303#         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303#         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.13	Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
PAHs         DETSC 3303#         0.03         mg/kg         0.23           Acenaphthylene         DETSC 3303#         0.03         mg/kg         0.06           Acenaphthene         DETSC 3303#         0.03         mg/kg         0.14           Fluorene         DETSC 3303         0.03         mg/kg         0.17           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.44           Anthracene         DETSC 3303#         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303#         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
Naphthalene         DETSC 3303#         0.03         mg/kg         0.23           Acenaphthylene         DETSC 3303#         0.03         mg/kg         0.06           Acenaphthene         DETSC 3303#         0.03         mg/kg         0.14           Fluorene         DETSC 3303         0.03         mg/kg         0.17           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.44           Anthracene         DETSC 3303         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
Acenaphthylene         DETSC 3303#         0.03         mg/kg         0.04           Acenaphthene         DETSC 3303#         0.03         mg/kg         0.14           Fluorene         DETSC 3303         0.03         mg/kg         0.17           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.44           Anthracene         DETSC 3303#         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	PAHs		•		
Acenaphthene         DETSC 3303#         0.03 mg/kg         0.14           Fluorene         DETSC 3303         0.03 mg/kg         0.17           Phenanthrene         DETSC 3303#         0.03 mg/kg         0.44           Anthracene         DETSC 3303         0.03 mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03 mg/kg         0.57           Pyrene         DETSC 3303#         0.03 mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03 mg/kg         0.26           Chrysene         DETSC 3303         0.03 mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03 mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03 mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03 mg/kg         0.21	Naphthalene	DETSC 3303#	0.03	mg/kg	0.23
Fluorene         DETSC 3303         0.03         mg/kg         0.17           Phenanthrene         DETSC 3303#         0.03         mg/kg         0.44           Anthracene         DETSC 3303         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.06
Phenanthrene         DETSC 3303#         0.03         mg/kg         0.44           Anthracene         DETSC 3303         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Acenaphthene	DETSC 3303#	0.03	mg/kg	0.14
Anthracene         DETSC 3303         0.03         mg/kg         0.07           Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Fluorene	DETSC 3303	0.03	mg/kg	0.17
Fluoranthene         DETSC 3303#         0.03         mg/kg         0.57           Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44
Pyrene         DETSC 3303#         0.03         mg/kg         0.46           Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Anthracene	DETSC 3303	0.03	mg/kg	0.07
Benzo(a)anthracene         DETSC 3303#         0.03         mg/kg         0.26           Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Fluoranthene	DETSC 3303#	0.03	mg/kg	0.57
Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Pyrene	DETSC 3303#	0.03		0.46
Chrysene         DETSC 3303         0.03         mg/kg         0.28           Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.26
Benzo(b)fluoranthene         DETSC 3303#         0.03         mg/kg         0.32           Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Chrysene	DETSC 3303	0.03		0.28
Benzo(k)fluoranthene         DETSC 3303#         0.03         mg/kg         0.13           Benzo(a)pyrene         DETSC 3303#         0.03         mg/kg         0.21	Benzo(b)fluoranthene	DETSC 3303#	0.03		0.32
Benzo(a)pyrene DETSC 3303# 0.03 mg/kg 0.21	Benzo(k)fluoranthene	DETSC 3303#	0.03		0.13
Indeno(1,2,3-c,d)pyrene DETSC 3303# 0.03 mg/kg 0.10	Benzo(a)pyrene	DETSC 3303#	0.03		0.21
	Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665139
Sample ID	PRAIRIE_AUK_TP107_SO_0080
Depth	0.80
Other ID	11
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	3.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665139
Sample ID	PRAIRIE_AUK_TP107_SO_0080
Depth	0.80
Other ID	11
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665140
Sample ID	PRAIRIE_AUK_TP108_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	23000
Antimony	DETSC 2301*	1	mg/kg	5.3
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	650
Beryllium	DETSC 2301#	0.2	mg/kg	2.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.5
Cadmium	DETSC 2301#	0.1	mg/kg	1.5
Chromium	DETSC 2301#	0.15	mg/kg	340
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	40
Iron	DETSC 2301	25	mg/kg	57000
Lead	DETSC 2301#	0.3	mg/kg	120
Magnesium	DETSC 2301*	1	mg/kg	21000
Manganese	DETSC 2301#	20	mg/kg	14000
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	3.5
Nickel	DETSC 2301#	1	mg/kg	16
Silicon	DETSC 2301*	10	mg/kg	54000
Vanadium	DETSC 2301#	0.8	mg/kg	950
Zinc	DETSC 2301#	1	mg/kg	230
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	8.1
рН	DETSC 2008#		рН	11.7
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	330
Sulphur (free)	DETSC 3049#	0.75	mg/kg	5.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665140
Sample ID	PRAIRIE_AUK_TP108_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	31
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	32
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	5.1
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	67
Aromatic C5-C35	DETSC 3072*	10	mg/kg	72
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	100
EPH (C10-C40)	DETSC 3311#	10	mg/kg	420
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.15
Fluorene	DETSC 3303	0.03	mg/kg	0.13
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.3
Anthracene	DETSC 3303	0.03	mg/kg	0.30
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.1
Pyrene	DETSC 3303#	0.03	mg/kg	4.2
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	3.3
Chrysene	DETSC 3303	0.03	mg/kg	2.1
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	4.0
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.8
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	2.4
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665140
Sample ID	PRAIRIE_AUK_TP108_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.28
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.3
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	26



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665140
Sample ID	PRAIRIE_AUK_TP108_SO_0100
Depth	1.00
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.002
Metals				
Aluminium	DETSC 2301*	1	mg/kg	10000
Antimony	DETSC 2301*	1	mg/kg	11
Arsenic	DETSC 2301#	0.2	mg/kg	31
Barium	DETSC 2301#	1.5	mg/kg	830
Beryllium	DETSC 2301#	0.2	mg/kg	1.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	5.8
Chromium	DETSC 2301#	0.15	mg/kg	620
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	89
Iron	DETSC 2301	25	mg/kg	100000
Lead	DETSC 2301#	0.3	mg/kg	320
Magnesium	DETSC 2301*	1	mg/kg	23000
Manganese	DETSC 2301#	20	mg/kg	16000
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	6.7
Nickel	DETSC 2301#	1	mg/kg	40
Silicon	DETSC 2301*	10	mg/kg	49000
Vanadium	DETSC 2301#	0.8	mg/kg	1600
Zinc	DETSC 2301#	1	mg/kg	520
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	4.8
рН	DETSC 2008#		рН	11.9
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	160
Sulphur (free)	DETSC 3049#	0.75	mg/kg	3.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wethou			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	13
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	14
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.6
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	7.9
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	36
Aromatic C5-C35	DETSC 3072*	10	mg/kg	46
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	60
EPH (C10-C40)	DETSC 3311#	10	mg/kg	180
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.20
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.56
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.48
Fluorene	DETSC 3303	0.03	mg/kg	0.94
Phenanthrene	DETSC 3303#	0.03	mg/kg	4.2
Anthracene	DETSC 3303	0.03	mg/kg	1.9
Fluoranthene	DETSC 3303#	0.03	mg/kg	9.7
Pyrene	DETSC 3303#	0.03	mg/kg	8.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	7.8
Chrysene	DETSC 3303	0.03	mg/kg	4.8
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	12
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	6.2
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	8.4
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	3.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.72
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	2.9
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	73



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665142
Sample ID	PRAIRIE_AUK_TP113_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.006
Metals				
Aluminium	DETSC 2301*	1	mg/kg	21000
Antimony	DETSC 2301*	1	mg/kg	4.5
Arsenic	DETSC 2301#	0.2	mg/kg	18
Barium	DETSC 2301#	1.5	mg/kg	320
Beryllium	DETSC 2301#	0.2	mg/kg	2.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	4.3
Cadmium	DETSC 2301#	0.1	mg/kg	1.3
Chromium	DETSC 2301#	0.15	mg/kg	150
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	72
Iron	DETSC 2301	25	mg/kg	75000
Lead	DETSC 2301#	0.3	mg/kg	140
Magnesium	DETSC 2301*	1	mg/kg	18000
Manganese	DETSC 2301#	20	mg/kg	7800
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	2.3
Nickel	DETSC 2301#	1	mg/kg	24
Silicon	DETSC 2301*	10	mg/kg	63000
Vanadium	DETSC 2301#	0.8	mg/kg	280
Zinc	DETSC 2301#	1	mg/kg	280
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	5.9
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	4.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	320
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Test

Lab No	1665142
Sample ID	PRAIRIE_AUK_TP113_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

11
<i>I</i> I
mg/kg < 0.01
mg/kg < 0.01
mg/kg < 0.01
mg/kg < 1.5
mg/kg < 1.2
mg/kg < 1.5
mg/kg 46
mg/kg 46
mg/kg < 0.01
mg/kg < 0.01
mg/kg < 0.01
mg/kg < 0.9
mg/kg 0.8
mg/kg 7.1
mg/kg 76
mg/kg 84
mg/kg 130
mg/kg 230
mg/kg 0.21
mg/kg 0.15
mg/kg 0.13
mg/kg 0.23
mg/kg 1.8
mg/kg 0.52
mg/kg 5.0
mg/kg 6.0
mg/kg 3.0
mg/kg 2.3
mg/kg 3.1
mg/kg 1.2
mg/kg 2.3
mg/kg 0.79



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665142
Sample ID	PRAIRIE_AUK_TP113_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.23
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.0
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	28



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665142
Sample ID	PRAIRIE_AUK_TP113_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665286
Sample ID	PRAIRIE_AUK_BH103_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	14000
Antimony	DETSC 2301*	1	mg/kg	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	270
Beryllium	DETSC 2301#	0.2	mg/kg	1.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	30
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	39
Iron	DETSC 2301	25	mg/kg	42000
Lead	DETSC 2301#	0.3	mg/kg	50
Magnesium	DETSC 2301*	1	mg/kg	9500
Manganese	DETSC 2301#	20	mg/kg	1200
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8
Nickel	DETSC 2301#	1	mg/kg	34
Silicon	DETSC 2301*	10	mg/kg	160000
Vanadium	DETSC 2301#	0.8	mg/kg	47
Zinc	DETSC 2301#	1	mg/kg	130
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	470
Sulphur (free)	DETSC 3049#	0.75	mg/kg	3.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665286
Sample ID	PRAIRIE_AUK_BH103_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
<b>Sampling Date</b>	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs		•		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.29
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.04
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.12
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.10
Pyrene	DETSC 3303#	0.03	mg/kg	0.07
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.04
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665286
Sample ID	PRAIRIE_AUK_BH103_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.62



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665286
Sample ID	PRAIRIE_AUK_BH103_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665288
Sample ID	PRAIRIE_AUK_TP115_SO_0190
Depth	1.90
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	35000
Antimony	DETSC 2301*	1	mg/kg	1.4
Arsenic	DETSC 2301#	0.2	mg/kg	4.2
Barium	DETSC 2301#	1.5	mg/kg	370
Beryllium	DETSC 2301#	0.2	mg/kg	3.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	4.4
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	66
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	10
Iron	DETSC 2301	25	mg/kg	14000
Lead	DETSC 2301#	0.3	mg/kg	4.6
Magnesium	DETSC 2301*	1	mg/kg	33000
Manganese	DETSC 2301#	20	mg/kg	4100
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.4
Nickel	DETSC 2301#	1	mg/kg	2.9
Silicon	DETSC 2301*	10	mg/kg	77000
Vanadium	DETSC 2301#	0.8	mg/kg	230
Zinc	DETSC 2301#	1	mg/kg	33
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.8
Organic matter	DETSC 2002#	0.1	%	0.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	400
Sulphur (free)	DETSC 3049#	0.75	mg/kg	4.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665288
Sample ID	PRAIRIE_AUK_TP115_SO_0190
Depth	1.90
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.05
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Pyrene	DETSC 3303#	0.03	mg/kg	0.09
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Chrysene	DETSC 3303	0.03	mg/kg	0.05
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665288
Sample ID	PRAIRIE_AUK_TP115_SO_0190
Depth	1.90
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s
	<u>-</u>

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.39



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665288
Sample ID	PRAIRIE_AUK_TP115_SO_0190
Depth	1.90
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665290
Sample ID	PRAIRIE_AUK_TP122_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.002
Metals				
Aluminium	DETSC 2301*	1	mg/kg	10000
Antimony	DETSC 2301*	1	mg/kg	6.6
Arsenic	DETSC 2301#	0.2	mg/kg	10
Barium	DETSC 2301#	1.5	mg/kg	160
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.0
Cadmium	DETSC 2301#	0.1	mg/kg	2.6
Chromium	DETSC 2301#	0.15	mg/kg	85
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	170
Iron	DETSC 2301	25	mg/kg	180000
Lead	DETSC 2301#	0.3	mg/kg	91
Magnesium	DETSC 2301*	1	mg/kg	6000
Manganese	DETSC 2301#	20	mg/kg	2400
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	12
Nickel	DETSC 2301#	1	mg/kg	65
Silicon	DETSC 2301*	10	mg/kg	39000
Vanadium	DETSC 2301#	0.8	mg/kg	71
Zinc	DETSC 2301#	1	mg/kg	3000
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	2.1
рН	DETSC 2008#		рН	11.2
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	9.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	230
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665290
Sample ID	PRAIRIE_AUK_TP122_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	24
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	24
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	24
EPH (C10-C40)	DETSC 3311#	10	mg/kg	120
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.08
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Pyrene	DETSC 3303#	0.03	mg/kg	0.09
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Chrysene	DETSC 3303	0.03	mg/kg	0.06
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665290
Sample ID	PRAIRIE_AUK_TP122_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.44



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665290
Sample ID	PRAIRIE_AUK_TP122_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665291
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	16000
Antimony	DETSC 2301*	1	mg/kg	5.0
Arsenic	DETSC 2301#	0.2	mg/kg	14
Barium	DETSC 2301#	1.5	mg/kg	240
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	190
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	68
Iron	DETSC 2301	25	mg/kg	86000
Lead	DETSC 2301#	0.3	mg/kg	56
Magnesium	DETSC 2301*	1	mg/kg	16000
Manganese	DETSC 2301#	20	mg/kg	9400
Mercury	DETSC 2325#	0.05	mg/kg	0.29
Molybdenum	DETSC 2301#	0.4	mg/kg	3.2
Nickel	DETSC 2301#	1	mg/kg	19
Silicon	DETSC 2301*	10	mg/kg	95000
Vanadium	DETSC 2301#	0.8	mg/kg	360
Zinc	DETSC 2301#	1	mg/kg	200
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	29
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	6.3
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	7.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1665291
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	40
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	290
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	190
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	520
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	16
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	99
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	100
Aromatic C5-C35	DETSC 3072*	10	mg/kg	220
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	730
EPH (C10-C40)	DETSC 3311#	10	mg/kg	1500
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.30
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.30
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.30
Fluorene	DETSC 3303	0.03	mg/kg	< 0.30
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.48
Anthracene	DETSC 3303	0.03	mg/kg	< 0.30
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.92
Pyrene	DETSC 3303#	0.03	mg/kg	0.72
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.56
Chrysene	DETSC 3303	0.03	mg/kg	0.50
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.53
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.30
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.30
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.36



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665291
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.30
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.30
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 3.37



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665291
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665292
Sample ID	PRAIRIE_AUK_TP185_SO_0430
Depth	4.30
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	11000
Antimony	DETSC 2301*	1	mg/kg	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	8.1
Barium	DETSC 2301#	1.5	mg/kg	220
Beryllium	DETSC 2301#	0.2	mg/kg	0.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	23
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32
Iron	DETSC 2301	25	mg/kg	42000
Lead	DETSC 2301#	0.3	mg/kg	23
Magnesium	DETSC 2301*	1	mg/kg	7500
Manganese	DETSC 2301#	20	mg/kg	490
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8
Nickel	DETSC 2301#	1	mg/kg	31
Silicon	DETSC 2301*	10	mg/kg	170000
Vanadium	DETSC 2301#	0.8	mg/kg	28
Zinc	DETSC 2301#	1	mg/kg	160
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	4.4
рН	DETSC 2008#		рН	8.4
Calorific Value	DETSC 5008	1	MJ/kg	< 1.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665292
Sample ID	PRAIRIE_AUK_TP185_SO_0430
Depth	4.30
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665292
Sample ID	PRAIRIE_AUK_TP185_SO_0430
Depth	4.30
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665292
Sample ID	PRAIRIE_AUK_TP185_SO_0430
Depth	4.30
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665293
Sample ID	PRAIRIE_AUK_TP186_SO_0050
Depth	0.50
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	4.7
Arsenic	DETSC 2301#	0.2	mg/kg	150
Barium	DETSC 2301#	1.5	mg/kg	340
Beryllium	DETSC 2301#	0.2	mg/kg	1.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	3.7
Chromium	DETSC 2301#	0.15	mg/kg	55
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	100
Iron	DETSC 2301	25	mg/kg	78000
Lead	DETSC 2301#	0.3	mg/kg	68
Magnesium	DETSC 2301*	1	mg/kg	8400
Manganese	DETSC 2301#	20	mg/kg	75000
Mercury	DETSC 2325#	0.05	mg/kg	0.60
Molybdenum	DETSC 2301#	0.4	mg/kg	38
Nickel	DETSC 2301#	1	mg/kg	46
Silicon	DETSC 2301*	10	mg/kg	14000
Vanadium	DETSC 2301#	0.8	mg/kg	240
Zinc	DETSC 2301#	1	mg/kg	150
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	19
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	270
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.7
	-			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665293
Sample ID	PRAIRIE_AUK_TP186_SO_0050
Depth	0.50
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.6
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	5.2
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	8.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	16
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	16
EPH (C10-C40)	DETSC 3311#	10	mg/kg	130
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.61
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.59
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.40
Fluorene	DETSC 3303	0.03	mg/kg	0.42
Phenanthrene	DETSC 3303#	0.03	mg/kg	2.5
Anthracene	DETSC 3303	0.03	mg/kg	1.3
Fluoranthene	DETSC 3303#	0.03	mg/kg	6.5
Pyrene	DETSC 3303#	0.03	mg/kg	5.7
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	2.7
Chrysene	DETSC 3303	0.03	mg/kg	2.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	3.0
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.3
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	2.1
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.93



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665293
Sample ID	PRAIRIE_AUK_TP186_SO_0050
Depth	0.50
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.25
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.1
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	31



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665293
Sample ID	PRAIRIE_AUK_TP186_SO_0050
Depth	0.50
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665295
Sample ID	PRAIRIE_AUK_TP188_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	11000
Antimony	DETSC 2301*	1	mg/kg	3.9
Arsenic	DETSC 2301#	0.2	mg/kg	28
Barium	DETSC 2301#	1.5	mg/kg	270
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	69
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	53
Iron	DETSC 2301	25	mg/kg	60000
Lead	DETSC 2301#	0.3	mg/kg	26
Magnesium	DETSC 2301*	1	mg/kg	7100
Manganese	DETSC 2301#	20	mg/kg	21000
Mercury	DETSC 2325#	0.05	mg/kg	0.11
Molybdenum	DETSC 2301#	0.4	mg/kg	2.5
Nickel	DETSC 2301#	1	mg/kg	27
Silicon	DETSC 2301*	10	mg/kg	48000
Vanadium	DETSC 2301#	0.8	mg/kg	150
Zinc	DETSC 2301#	1	mg/kg	81
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	13
рН	DETSC 2008#		рН	10.6
Calorific Value	DETSC 5008	1	MJ/kg	12.0
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	5.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	220
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665295
Sample ID	PRAIRIE_AUK_TP188_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	140
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.31
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.17
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.13
Fluorene	DETSC 3303	0.03	mg/kg	0.20
Phenanthrene	DETSC 3303#	0.03	mg/kg	2.6
Anthracene	DETSC 3303	0.03	mg/kg	0.67
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.2
Pyrene	DETSC 3303#	0.03	mg/kg	3.2
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.4
Chrysene	DETSC 3303	0.03	mg/kg	1.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.3
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.57
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.79
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.27



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665295
Sample ID	PRAIRIE_AUK_TP188_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.10
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.33
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	17



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665295
Sample ID	PRAIRIE_AUK_TP188_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665450
Sample ID	PRARIE_AUK_TP121_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	8100
Antimony	DETSC 2301*	1	mg/kg	11
Arsenic	DETSC 2301#	0.2	mg/kg	1.6
Barium	DETSC 2301#	1.5	mg/kg	210
Beryllium	DETSC 2301#	0.2	mg/kg	0.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	750
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	21
Iron	DETSC 2301	25	mg/kg	180000
Lead	DETSC 2301#	0.3	mg/kg	14
Magnesium	DETSC 2301*	1	mg/kg	32000
Manganese	DETSC 2301#	20	mg/kg	37000
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	3.6
Nickel	DETSC 2301#	1	mg/kg	3.6
Silicon	DETSC 2301*	10	mg/kg	38000
Vanadium	DETSC 2301#	0.8	mg/kg	1700
Zinc	DETSC 2301#	1	mg/kg	56
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	12.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	23
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.2
Organic matter	DETSC 2002#	0.1	%	1.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	32
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665450
Sample ID	PRARIE_AUK_TP121_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.10
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.39
Pyrene	DETSC 3303#	0.03	mg/kg	0.49
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.18
Chrysene	DETSC 3303	0.03	mg/kg	0.26
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.27
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.10
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665450
Sample ID	PRARIE_AUK_TP121_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.09
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665450
Sample ID	PRARIE_AUK_TP121_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665451
Sample ID	PRARIE_AUK_TP138_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.020
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	3.2
Arsenic	DETSC 2301#	0.2	mg/kg	15
Barium	DETSC 2301#	1.5	mg/kg	200
Beryllium	DETSC 2301#	0.2	mg/kg	0.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	150
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	26
Iron	DETSC 2301	25	mg/kg	47000
Lead	DETSC 2301#	0.3	mg/kg	53
Magnesium	DETSC 2301*	1	mg/kg	12000
Manganese	DETSC 2301#	20	mg/kg	5100
Mercury	DETSC 2325#	0.05	mg/kg	2.1
Molybdenum	DETSC 2301#	0.4	mg/kg	2.0
Nickel	DETSC 2301#	1	mg/kg	13
Silicon	DETSC 2301*	10	mg/kg	88000
Vanadium	DETSC 2301#	0.8	mg/kg	140
Zinc	DETSC 2301#	1	mg/kg	160
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	9.9
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.3
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	1.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	150
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665451
Sample ID	PRARIE_AUK_TP138_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	11
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	13
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	7.9
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	30
Aromatic C5-C35	DETSC 3072*	10	mg/kg	38
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	51
EPH (C10-C40)	DETSC 3311#	10	mg/kg	280
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.04
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.05
Fluorene	DETSC 3303	0.03	mg/kg	0.04
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44
Anthracene	DETSC 3303	0.03	mg/kg	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.1
Pyrene	DETSC 3303#	0.03	mg/kg	2.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.4
Chrysene	DETSC 3303	0.03	mg/kg	1.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.8
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.78
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.2
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.58



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665451
Sample ID	PRARIE_AUK_TP138_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.20
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.0
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665451
Sample ID	PRARIE_AUK_TP138_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665452
Sample ID	PRARIE_AUK_TP149_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	8600
Antimony	DETSC 2301*	1	mg/kg	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	37
Barium	DETSC 2301#	1.5	mg/kg	1100
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	33
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	110
Iron	DETSC 2301	25	mg/kg	48000
Lead	DETSC 2301#	0.3	mg/kg	180
Magnesium	DETSC 2301*	1	mg/kg	8000
Manganese	DETSC 2301#	20	mg/kg	2000
Mercury	DETSC 2325#	0.05	mg/kg	1.4
Molybdenum	DETSC 2301#	0.4	mg/kg	2.6
Nickel	DETSC 2301#	1	mg/kg	27
Silicon	DETSC 2301*	10	mg/kg	46000
Vanadium	DETSC 2301#	0.8	mg/kg	90
Zinc	DETSC 2301#	1	mg/kg	350
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	11
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	290
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665452
Sample ID	PRARIE_AUK_TP149_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	12
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	13
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	13
EPH (C10-C40)	DETSC 3311#	10	mg/kg	96
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.35
Anthracene	DETSC 3303	0.03	mg/kg	0.06
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.87
Pyrene	DETSC 3303#	0.03	mg/kg	0.70
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.36
Chrysene	DETSC 3303	0.03	mg/kg	0.35
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.32
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.14
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.18
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Depth 1.3	Lab No	1665452
Other ID	Sample ID	PRARIE_AUK_TP149_SO_0130
	Depth	1.30
	Other ID	3
Sample Type	Sample Type	ES
Sampling Date 09/04/202	Sampling Date	09/04/2020
Sampling Time n	Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.09
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	3.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665452
Sample ID	PRARIE_AUK_TP149_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665453
Sample ID	PRARIE_AUK_TP168_SO_0005
Depth	0.05
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	19000
Antimony	DETSC 2301*	1	mg/kg	3.9
Arsenic	DETSC 2301#	0.2	mg/kg	44
Barium	DETSC 2301#	1.5	mg/kg	210
Beryllium	DETSC 2301#	0.2	mg/kg	2.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	61
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	78
Iron	DETSC 2301	25	mg/kg	91000
Lead	DETSC 2301#	0.3	mg/kg	93
Magnesium	DETSC 2301*	1	mg/kg	10000
Manganese	DETSC 2301#	20	mg/kg	2100
Mercury	DETSC 2325#	0.05	mg/kg	0.15
Molybdenum	DETSC 2301#	0.4	mg/kg	2.1
Nickel	DETSC 2301#	1	mg/kg	38
Silicon	DETSC 2301*	10	mg/kg	62000
Vanadium	DETSC 2301#	0.8	mg/kg	200
Zinc	DETSC 2301#	1	mg/kg	330
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	12
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	77
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665453
Sample ID	PRARIE_AUK_TP168_SO_0005
Depth	0.05
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

< 0.01 < 0.01 < 0.01 < 1.5 < 1.2 < 1.5 7.4 < 10 < 0.01
< 0.01 < 0.01 < 1.5 < 1.2 < 1.5 7.4 < 10 < 0.01
< 0.01 < 0.01 < 1.5 < 1.2 < 1.5 7.4 < 10 < 0.01
< 0.01 < 1.5 < 1.2 < 1.5 7.4 < 10 < 0.01
< 1.5 < 1.2 < 1.5 7.4 < 10 < 0.01
< 1.2 < 1.5 7.4 < 10 < 0.01
< 1.5 7.4 < 10 < 0.01
7.4 < 10 < 0.01
< 10 < 0.01
< 0.01
< 0.01
< 0.01
< 0.9
< 0.5
< 0.6
< 1.4
< 10
< 10
< 10
0.06
< 0.03
0.05
0.03
0.28
0.04
0.43
0.37
0.18
0.25
0.24
0.10
0.12
0.08



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665453
Sample ID	PRARIE_AUK_TP168_SO_0005
Depth	0.05
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.09
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665453
Sample ID	PRARIE_AUK_TP168_SO_0005
Depth	0.05
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665454
Sample ID	PRARIE_AUK_TP173_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	21000
Antimony	DETSC 2301*	1	mg/kg	6.1
Arsenic	DETSC 2301#	0.2	mg/kg	78
Barium	DETSC 2301#	1.5	mg/kg	210
Beryllium	DETSC 2301#	0.2	mg/kg	2.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	93
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	320
Iron	DETSC 2301	25	mg/kg	150000
Lead	DETSC 2301#	0.3	mg/kg	70
Magnesium	DETSC 2301*	1	mg/kg	7700
Manganese	DETSC 2301#	20	mg/kg	4100
Mercury	DETSC 2325#	0.05	mg/kg	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	5.6
Nickel	DETSC 2301#	1	mg/kg	86
Silicon	DETSC 2301*	10	mg/kg	48000
Vanadium	DETSC 2301#	0.8	mg/kg	230
Zinc	DETSC 2301#	1	mg/kg	380
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	120
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.2
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.8
Organic matter	DETSC 2002#	0.1	%	8.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	540
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665454
Sample ID	PRARIE_AUK_TP173_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	2.0
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.09
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.57
Fluorene	DETSC 3303	0.03	mg/kg	0.20
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.37
Anthracene	DETSC 3303	0.03	mg/kg	0.05
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.30
Pyrene	DETSC 3303#	0.03	mg/kg	0.23
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.09
Chrysene	DETSC 3303	0.03	mg/kg	0.14
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.04



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

 $08118, 20\hbox{-}08189, 20\hbox{-}08381, 20\hbox{-}09141, 20\hbox{-}$ 

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665454
Sample ID	PRARIE_AUK_TP173_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665454
Sample ID	PRARIE_AUK_TP173_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665455
Sample ID	PRARIE_AUK_SURFACE1_SO_0000
Depth	
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	4800
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	1.8
Barium	DETSC 2301#	1.5	mg/kg	130
Beryllium	DETSC 2301#	0.2	mg/kg	0.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	1.7
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	5.9
Iron	DETSC 2301	25	mg/kg	2700
Lead	DETSC 2301#	0.3	mg/kg	10
Magnesium	DETSC 2301*	1	mg/kg	4700
Manganese	DETSC 2301#	20	mg/kg	1500
Mercury	DETSC 2325#	0.05	mg/kg	0.22
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	1.6
Silicon	DETSC 2301*	10	mg/kg	9500
Vanadium	DETSC 2301#	0.8	mg/kg	7.9
Zinc	DETSC 2301#	1	mg/kg	47
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	21
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	6.6
Organic matter	DETSC 2002#	0.1	%	1.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	670
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665455
Sample ID	PRARIE_AUK_SURFACE1_SO_0000
Depth	
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	< 10
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665455
Sample ID	PRARIE_AUK_SURFACE1_SO_0000
Depth	
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665455
Sample ID	PRARIE_AUK_SURFACE1_SO_0000
Depth	
Other ID	1
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	4.6
Arsenic	DETSC 2301#	0.2	mg/kg	51
Barium	DETSC 2301#	1.5	mg/kg	140
Beryllium	DETSC 2301#	0.2	mg/kg	1.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.8
Cadmium	DETSC 2301#	0.1	mg/kg	3.9
Chromium	DETSC 2301#	0.15	mg/kg	66
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	110
Iron	DETSC 2301	25	mg/kg	69000
Lead	DETSC 2301#	0.3	mg/kg	330
Magnesium	DETSC 2301*	1	mg/kg	3900
Manganese	DETSC 2301#	20	mg/kg	2000
Mercury	DETSC 2325#	0.05	mg/kg	0.35
Molybdenum	DETSC 2301#	0.4	mg/kg	2.5
Nickel	DETSC 2301#	1	mg/kg	47
Silicon	DETSC 2301*	10	mg/kg	U/S
Vanadium	DETSC 2301#	0.8	mg/kg	110
Zinc	DETSC 2301#	1	mg/kg	4200
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	2.2
Organic matter	DETSC 2002#	0.1	%	2.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	44
Sulphur (free)	DETSC 3049#	0.75	mg/kg	13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 1.00
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 1.00
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	1.5
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 763.0
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	6.0
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	5.6
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	15
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	130
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	97
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	150
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	83
Aromatic C5-C35	DETSC 3072*	10	mg/kg	490
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	1300
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	37000
Acenaphthylene	DETSC 3303#	0.03	mg/kg	5600
Acenaphthene	DETSC 3303#	0.03	mg/kg	41
Fluorene	DETSC 3303	0.03	mg/kg	6200
Phenanthrene	DETSC 3303#	0.03	mg/kg	22000
Anthracene	DETSC 3303	0.03	mg/kg	5700
Fluoranthene	DETSC 3303#	0.03	mg/kg	11000
Pyrene	DETSC 3303#	0.03	mg/kg	9700
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	4600
Chrysene	DETSC 3303	0.03	mg/kg	3600
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	91
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	49
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	92
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	31



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	8.4
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	29
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	110000



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	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	210



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665589
Sample ID	PRAIRIE_AUK_TP124_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.002
Metals				
Aluminium	DETSC 2301*	1	mg/kg	8300
Antimony	DETSC 2301*	1	mg/kg	3.8
Arsenic	DETSC 2301#	0.2	mg/kg	40
Barium	DETSC 2301#	1.5	mg/kg	350
Beryllium	DETSC 2301#	0.2	mg/kg	0.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	7.2
Cadmium	DETSC 2301#	0.1	mg/kg	3.1
Chromium	DETSC 2301#	0.15	mg/kg	48
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	69
Iron	DETSC 2301	25	mg/kg	51000
Lead	DETSC 2301#	0.3	mg/kg	90
Magnesium	DETSC 2301*	1	mg/kg	9900
Manganese	DETSC 2301#	20	mg/kg	23000
Mercury	DETSC 2325#	0.05	mg/kg	0.26
Molybdenum	DETSC 2301#	0.4	mg/kg	4.0
Nickel	DETSC 2301#	1	mg/kg	32
Silicon	DETSC 2301*	10	mg/kg	100000
Vanadium	DETSC 2301#	0.8	mg/kg	100
Zinc	DETSC 2301#	1	mg/kg	340
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	41
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.2
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.7
Organic matter	DETSC 2002#	0.1	%	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	130
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665589
Sample ID	PRAIRIE_AUK_TP124_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.2
Anthracene	DETSC 3303	0.03	mg/kg	0.22
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.4
Pyrene	DETSC 3303#	0.03	mg/kg	3.8
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.6
Chrysene	DETSC 3303	0.03	mg/kg	1.8
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.7
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.86
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.66
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.62



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665589
Sample ID	PRAIRIE_AUK_TP124_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.21
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.72
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	18



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665589
Sample ID	PRAIRIE_AUK_TP124_SO_0150
Depth	1.50
Other ID	5
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665590
Sample ID	PRAIRIE_AUK_TP174_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	9200
Antimony	DETSC 2301*	1	mg/kg	5.6
Arsenic	DETSC 2301#	0.2	mg/kg	58
Barium	DETSC 2301#	1.5	mg/kg	250
Beryllium	DETSC 2301#	0.2	mg/kg	0.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	81
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	120
Iron	DETSC 2301	25	mg/kg	120000
Lead	DETSC 2301#	0.3	mg/kg	110
Magnesium	DETSC 2301*	1	mg/kg	8600
Manganese	DETSC 2301#	20	mg/kg	99000
Mercury	DETSC 2325#	0.05	mg/kg	0.33
Molybdenum	DETSC 2301#	0.4	mg/kg	18
Nickel	DETSC 2301#	1	mg/kg	78
Silicon	DETSC 2301*	10	mg/kg	36000
Vanadium	DETSC 2301#	0.8	mg/kg	67
Zinc	DETSC 2301#	1	mg/kg	160
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	5.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.3
Organic matter	DETSC 2002#	0.1	%	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665590
Sample ID	PRAIRIE_AUK_TP174_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

		-		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons	Г			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	•			
Naphthalene	DETSC 3303#	0.03	mg/kg	0.11
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.27
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.17
Fluorene	DETSC 3303	0.03	mg/kg	0.23
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.7
Anthracene	DETSC 3303	0.03	mg/kg	0.43
Fluoranthene	DETSC 3303#	0.03	mg/kg	3.2
Pyrene	DETSC 3303#	0.03	mg/kg	2.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.96
Chrysene	DETSC 3303	0.03	mg/kg	0.93
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.92
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.39
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.60
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.30



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665590
Sample ID	PRAIRIE_AUK_TP174_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.09
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.35
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665590
Sample ID	PRAIRIE_AUK_TP174_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665591
Sample ID	PRAIRIE_AUK_TP174_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	6.2
Barium	DETSC 2301#	1.5	mg/kg	84
Beryllium	DETSC 2301#	0.2	mg/kg	0.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.2
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	20
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	17
Iron	DETSC 2301	25	mg/kg	32000
Lead	DETSC 2301#	0.3	mg/kg	23
Magnesium	DETSC 2301*	1	mg/kg	2300
Manganese	DETSC 2301#	20	mg/kg	370
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	11
Silicon	DETSC 2301*	10	mg/kg	190000
Vanadium	DETSC 2301#	0.8	mg/kg	27
Zinc	DETSC 2301#	1	mg/kg	58
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.2
Organic matter	DETSC 2002#	0.1	%	0.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	190
Sulphur (free)	DETSC 3049#	0.75	mg/kg	6.8



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665591
Sample ID	PRAIRIE_AUK_TP174_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Pyrene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665591
Sample ID	PRAIRIE_AUK_TP174_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665591
Sample ID	PRAIRIE_AUK_TP174_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665592
Sample ID	PRAIRIE_AUK_TP176_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	30000
Antimony	DETSC 2301*	1	mg/kg	3.0
Arsenic	DETSC 2301#	0.2	mg/kg	83
Barium	DETSC 2301#	1.5	mg/kg	260
Beryllium	DETSC 2301#	0.2	mg/kg	3.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	4.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	58
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	80
Iron	DETSC 2301	25	mg/kg	100000
Lead	DETSC 2301#	0.3	mg/kg	61
Magnesium	DETSC 2301*	1	mg/kg	13000
Manganese	DETSC 2301#	20	mg/kg	1600
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	3.2
Nickel	DETSC 2301#	1	mg/kg	65
Silicon	DETSC 2301*	10	mg/kg	71000
Vanadium	DETSC 2301#	0.8	mg/kg	190
Zinc	DETSC 2301#	1	mg/kg	360
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.8
Organic matter	DETSC 2002#	0.1	%	3.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665592
Sample ID	PRAIRIE_AUK_TP176_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

		-	scl	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons	1			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	7.3
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.04
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.05
Fluorene	DETSC 3303	0.03	mg/kg	0.04
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.17
Anthracene	DETSC 3303	0.03	mg/kg	0.06
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.67
Pyrene	DETSC 3303#	0.03	mg/kg	0.62
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.10
Chrysene	DETSC 3303	0.03	mg/kg	0.15
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665592
Sample ID	PRAIRIE_AUK_TP176_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665592
Sample ID	PRAIRIE_AUK_TP176_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	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	0.8



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665593
Sample ID	PRAIRIE_AUK_TP177_SO_0060
Depth	0.60
Other ID	2
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	31000
Antimony	DETSC 2301*	1	mg/kg	2.8
Arsenic	DETSC 2301#	0.2	mg/kg	37
Barium	DETSC 2301#	1.5	mg/kg	120
Beryllium	DETSC 2301#	0.2	mg/kg	4.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	110
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	26
Iron	DETSC 2301	25	mg/kg	80000
Lead	DETSC 2301#	0.3	mg/kg	29
Magnesium	DETSC 2301*	1	mg/kg	11000
Manganese	DETSC 2301#	20	mg/kg	1600
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	1.2
Nickel	DETSC 2301#	1	mg/kg	32
Silicon	DETSC 2301*	10	mg/kg	61000
Vanadium	DETSC 2301#	0.8	mg/kg	450
Zinc	DETSC 2301#	1	mg/kg	260
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.8
Organic matter	DETSC 2002#	0.1	%	2.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	83
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75
•	_			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665593
Sample ID	PRAIRIE_AUK_TP177_SO_0060
Depth	0.60
Other ID	2
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.06
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.14
Pyrene	DETSC 3303#	0.03	mg/kg	0.16
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Chrysene	DETSC 3303	0.03	mg/kg	0.08
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665593
Sample ID	PRAIRIE_AUK_TP177_SO_0060
Depth	0.60
Other ID	2
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.53



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665593
Sample ID	PRAIRIE_AUK_TP177_SO_0060
Depth	0.60
Other ID	2
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	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	0.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665594
Sample ID	PRAIRIE_AUK_TP189_SO_0300
Depth	3.00
Other ID	7
Sample Type	
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	19000
Antimony	DETSC 2301*	1	mg/kg	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	9.9
Barium	DETSC 2301#	1.5	mg/kg	260
Beryllium	DETSC 2301#	0.2	mg/kg	1.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	33
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	30
Iron	DETSC 2301	25	mg/kg	46000
Lead	DETSC 2301#	0.3	mg/kg	27
Magnesium	DETSC 2301*	1	mg/kg	13000
Manganese	DETSC 2301#	20	mg/kg	830
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	42
Silicon	DETSC 2301*	10	mg/kg	140000
Vanadium	DETSC 2301#	0.8	mg/kg	42
Zinc	DETSC 2301#	1	mg/kg	94
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	0.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	350
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1665594
Sample ID	PRAIRIE_AUK_TP189_SO_0300
Depth	3.00
Other ID	7
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665594
Sample ID	PRAIRIE_AUK_TP189_SO_0300
Depth	3.00
Other ID	7
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665594
Sample ID	PRAIRIE_AUK_TP189_SO_0300
Depth	3.00
Other ID	7
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	39000
Antimony	DETSC 2301*	1	mg/kg	4.6
Arsenic	DETSC 2301#	0.2	mg/kg	88
Barium	DETSC 2301#	1.5	mg/kg	79
Beryllium	DETSC 2301#	0.2	mg/kg	4.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	32
Iron	DETSC 2301	25	mg/kg	160000
Lead	DETSC 2301#	0.3	mg/kg	27
Magnesium	DETSC 2301*	1	mg/kg	11000
Manganese	DETSC 2301#	20	mg/kg	1200
Mercury	DETSC 2325#	0.05	mg/kg	0.32
Molybdenum	DETSC 2301#	0.4	mg/kg	2.1
Nickel	DETSC 2301#	1	mg/kg	98
Silicon	DETSC 2301*	10	mg/kg	100000
Vanadium	DETSC 2301#	0.8	mg/kg	360
Zinc	DETSC 2301#	1	mg/kg	200
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	120
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.3
Thiocyanate	DETSC 2130#	0.6	mg/kg	2.1
Organic matter	DETSC 2002#	0.1	%	4.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	900
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.03
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.71
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	27
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	150
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	31
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	9.7
Aromatic C5-C35	DETSC 3072*	10	mg/kg	220
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	220
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	190
Acenaphthylene	DETSC 3303#	0.03	mg/kg	13
Acenaphthene	DETSC 3303#	0.03	mg/kg	200
Fluorene	DETSC 3303	0.03	mg/kg	100
Phenanthrene	DETSC 3303#	0.03	mg/kg	65
Anthracene	DETSC 3303	0.03	mg/kg	18
Fluoranthene	DETSC 3303#	0.03	mg/kg	12
Pyrene	DETSC 3303#	0.03	mg/kg	8.2
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.7
Chrysene	DETSC 3303	0.03	mg/kg	1.5
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.74
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.31
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.59
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.17



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.19
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	610



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	9.3
Barium	DETSC 2301#	1.5	mg/kg	190
Beryllium	DETSC 2301#	0.2	mg/kg	1.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	29
Iron	DETSC 2301	25	mg/kg	39000
Lead	DETSC 2301#	0.3	mg/kg	34
Magnesium	DETSC 2301*	1	mg/kg	4000
Manganese	DETSC 2301#	20	mg/kg	320
Mercury	DETSC 2325#	0.05	mg/kg	0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.5
Nickel	DETSC 2301#	1	mg/kg	30
Silicon	DETSC 2301*	10	mg/kg	190000
Vanadium	DETSC 2301#	0.8	mg/kg	33
Zinc	DETSC 2301#	1	mg/kg	99
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	4.8
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	490
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s
LOD Units	

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou		011113	
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	2.5
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthene	DETSC 3303#	0.03	mg/kg	1.0
Fluorene	DETSC 3303	0.03	mg/kg	0.47
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.33
Anthracene	DETSC 3303	0.03	mg/kg	0.09
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.08
Pyrene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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	0.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Method	LOD	Units	
DETSC 1102	0.001	%	
DETSC 2301*	1	mg/kg	18000
DETSC 2301*	1	mg/kg	4.7
DETSC 2301#	0.2	mg/kg	45
DETSC 2301#	1.5	mg/kg	280
DETSC 2301#	0.2	mg/kg	2.5
DETSC 2311#	0.2	mg/kg	1.5
DETSC 2301#	0.1	mg/kg	0.5
DETSC 2301#	0.15	mg/kg	23
DETSC 2204*	1	mg/kg	< 1.0
DETSC 2301#	0.2	mg/kg	130
DETSC 2301	25	mg/kg	41000
DETSC 2301#	0.3	mg/kg	380
DETSC 2301*	1	mg/kg	6400
DETSC 2301#	20	mg/kg	12000
DETSC 2325#	0.05	mg/kg	0.10
DETSC 2301#	0.4	mg/kg	2.6
DETSC 2301#	1	mg/kg	23
DETSC 2301*	10	mg/kg	56000
DETSC 2301#	0.8	mg/kg	83
DETSC 2301#	1	mg/kg	210
•			
DETSC 2003#	0.01	%	
DETSC 2008#		рН	8.6
DETSC 5008	1	MJ/kg	
DETSC 2130#	0.1	mg/kg	20
DETSC 2130#	0.1	mg/kg	< 0.1
DETSC 2130#	0.6	mg/kg	0.9
DETSC 2002#	0.1	%	6.1
DETSC 2076#	10	mg/l	220
DETSC 3049#	0.75		60
	DETSC 1102  DETSC 2301* DETSC 2301# DETSC 2008# DETSC 2130# DETSC 2130# DETSC 2130# DETSC 2130# DETSC 2002# DETSC 2002# DETSC 2076#	DETSC 1102	DETSC 1102   0.001   %



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.27
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.23
Acenaphthene	DETSC 3303#	0.03	mg/kg	1.5
Fluorene	DETSC 3303	0.03	mg/kg	1.1
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.2
Anthracene	DETSC 3303	0.03	mg/kg	0.31
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.56
Pyrene	DETSC 3303#	0.03	mg/kg	0.42
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.12
Chrysene	DETSC 3303	0.03	mg/kg	0.16
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.13
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.07
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.06



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.06
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	6.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	
Sampling Time	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	1.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	21000
Antimony	DETSC 2301*	1	mg/kg	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	33
Barium	DETSC 2301#	1.5	mg/kg	82
Beryllium	DETSC 2301#	0.2	mg/kg	3.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	51
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23
Iron	DETSC 2301	25	mg/kg	87000
Lead	DETSC 2301#	0.3	mg/kg	23
Magnesium	DETSC 2301*	1	mg/kg	7000
Manganese	DETSC 2301#	20	mg/kg	1000
Mercury	DETSC 2325#	0.05	mg/kg	0.75
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8
Nickel	DETSC 2301#	1	mg/kg	28
Silicon	DETSC 2301*	10	mg/kg	73000
Vanadium	DETSC 2301#	0.8	mg/kg	150
Zinc	DETSC 2301#	1	mg/kg	130
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	3300
Cyanide, Free	DETSC 2130#	0.1	mg/kg	4.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	69
Organic matter	DETSC 2002#	0.1	%	7.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	650
Sulphur (free)	DETSC 3049#	0.75	mg/kg	26



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wiethou	LOD	Oilits	1
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	6.3
-				
Aliphatic C12-C16	DETSC 3072#	1.2 1.5	mg/kg	42
Aliphatic C16-C21	DETSC 3072#		mg/kg	49
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	3.6
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	100
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	0.04
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.31
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	13
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1700
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	2500
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	370
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	82
Aromatic C5-C35	DETSC 3072*	10	mg/kg	4600
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	4700
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	•			
Naphthalene	DETSC 3303#	0.03	mg/kg	3500
Acenaphthylene	DETSC 3303#	0.03	mg/kg	1300
Acenaphthene	DETSC 3303#	0.03	mg/kg	1300
Fluorene	DETSC 3303	0.03	mg/kg	730
Phenanthrene	DETSC 3303#	0.03	mg/kg	500
Anthracene	DETSC 3303	0.03	mg/kg	130
Fluoranthene	DETSC 3303#	0.03	mg/kg	120
Pyrene	DETSC 3303#	0.03	mg/kg	80
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	6.9
Chrysene	DETSC 3303	0.03	mg/kg	5.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	3.1
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.6
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	2.1
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.66



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
<b>Sampling Date</b>	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.20
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.71
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7700



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	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	9.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	11000
Antimony	DETSC 2301*	1	mg/kg	69
Arsenic	DETSC 2301#	0.2	mg/kg	64
Barium	DETSC 2301#	1.5	mg/kg	560
Beryllium	DETSC 2301#	0.2	mg/kg	1.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	20000
Iron	DETSC 2301	25	mg/kg	45000
Lead	DETSC 2301#	0.3	mg/kg	1200
Magnesium	DETSC 2301*	1	mg/kg	11000
Manganese	DETSC 2301#	20	mg/kg	4900
Mercury	DETSC 2325#	0.05	mg/kg	0.19
Molybdenum	DETSC 2301#	0.4	mg/kg	2.9
Nickel	DETSC 2301#	1	mg/kg	41
Silicon	DETSC 2301*	10	mg/kg	23000
Vanadium	DETSC 2301#	0.8	mg/kg	240
Zinc	DETSC 2301#	1	mg/kg	1500
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	200
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.04
Fluorene	DETSC 3303	0.03	mg/kg	0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.37
Anthracene	DETSC 3303	0.03	mg/kg	0.09
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.5
Pyrene	DETSC 3303#	0.03	mg/kg	1.4
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.61
Chrysene	DETSC 3303	0.03	mg/kg	0.61
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.92
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.30
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.47
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.21



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.30
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665991
Sample ID	PRAIRIE_AUK_TP146C_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Metals         Aluminium         DETSC 2301*         1         mg/kg         16000           Antimony         DETSC 2301*         1         mg/kg         9.5           Arsenic         DETSC 2301#         1.5         mg/kg         14           Barium         DETSC 2301#         1.5         mg/kg         250           Beryllium         DETSC 2301#         0.2         mg/kg         1.9           Boron, Water Soluble         DETSC 2311#         0.2         mg/kg         3.2           Cadmium         DETSC 2301#         0.1         mg/kg         1.0           Chromium         DETSC 2301#         0.1         mg/kg         1.0           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         42.0           Copper         DETSC 2301#         0.2         mg/kg         42.0           Iron         DETSC 2301#         0.2         mg/kg         35000           Magnesium         DETSC 2301#         0.3         mg/kg         210           Magnesium         DETSC 2301#         0.0         mg/kg         9000           Mercury         DETSC 2301#         0.0         mg/kg         0.17           Mickel         DETSC 230	Test	Method	LOD	Units	
Aluminium    DETSC 2301*   1 mg/kg   9.5	Asbestos Quantification	DETSC 1102	0.001	%	
Antimony DETSC 2301* 1 mg/kg 9.5 Arsenic DETSC 2301# 0.2 mg/kg 14 Barium DETSC 2301# 1.5 mg/kg 250 Beryllium DETSC 2301# 1.5 mg/kg 250 Beryllium DETSC 2301# 0.2 mg/kg 1.9 Boron, Water Soluble DETSC 2311# 0.2 mg/kg 3.2 Cadmium DETSC 2301# 0.1 mg/kg 1.0 Chromium DETSC 2301# 0.1 mg/kg 1.0 Chromium, Hexavalent DETSC 2301# 0.2 mg/kg 1.9 Chromium, Hexavalent DETSC 2301# 0.2 mg/kg 420 Iron DETSC 2301# 0.2 mg/kg 350 Iron DETSC 2301# 0.2 mg/kg 420 Iron DETSC 2301# 0.2 mg/kg 3500 Magnesium DETSC 2301# 0.3 mg/kg 3200 Magnesium DETSC 2301# 0.3 mg/kg 9000 Manganese DETSC 2301# 1 mg/kg 9000 Manganese DETSC 2301# 20 mg/kg 9000 Manganese DETSC 2301# 0.4 mg/kg 9000 Mickel DETSC 2301# 0.4 mg/kg 1.0 Nickel DETSC 2301# 1 mg/kg 9000 Vanadium DETSC 2301# 1 mg/kg 9.1  DISC 2301# 1 mg/kg 9.0  Vanadium DETSC 2301# 1 mg/kg 9.0  Inorganics Loss on Ignition at 4400C DETSC 2301# 1 mg/kg 350  Inorganics Loss on Ignition at 4400C DETSC 2008# PH 9H 9.6  Calorific Value DETSC 2308# 0.1 mg/kg 13  Cyanide, Free DETSC 2130# 0.1 mg/kg 13  Cyanide, Free DETSC 2130# 0.1 mg/kg 0.1  Thiocyanate DETSC 2130# 0.6 mg/kg 0.7  Organic matter DETSC 2002# 0.1 mg/kg 0.7  Organic matter DETSC 2002# 0.1 mg/kg 0.7	Metals				
Arsenic DETSC 2301# 0.2 mg/kg 250 Beryllium DETSC 2301# 0.2 mg/kg 1.9 Beryllium DETSC 2301# 0.2 mg/kg 1.9 Beryllium DETSC 2301# 0.2 mg/kg 1.9 Boron, Water Soluble DETSC 2301# 0.1 mg/kg 1.0 Cadmium DETSC 2301# 0.1 mg/kg 1.0 Chromium DETSC 2301# 0.15 mg/kg 1.0 Chromium DETSC 2301# 0.15 mg/kg 1.9 Chromium, Hexavalent DETSC 2301# 0.2 mg/kg 1.9 Chromium, Hexavalent DETSC 2301# 0.2 mg/kg 35000 Lead DETSC 2301# 0.3 mg/kg 35000 Lead DETSC 2301# 0.3 mg/kg 35000 Lead DETSC 2301# 0.3 mg/kg 35000 Manganese DETSC 2301# 20 mg/kg 3000 Manganese DETSC 2301# 20 mg/kg 3000 Mercury DETSC 2301# 20 mg/kg 3000 Mercury DETSC 2301# 0.4 mg/kg 3000 Mickel DETSC 2301# 0.4 mg/kg 1.0 Nickel DETSC 2301# 1 mg/kg 3000 Vanadium DETSC 2301# 1 mg/kg 3000 Norganics Loss on Ignition at 440oC DETSC 2008# pH 9H 9.6 Calorific Value DETSC 2008# pH 9H 9.6 Calorific Value DETSC 2008# pH 9H 9.6 Calorific Value DETSC 2130# 0.1 mg/kg 3000 Cyanide, Free DETSC 2130# 0.1 mg/kg 3000 DETSC 2300# 0.1 mg/kg 3	Aluminium	DETSC 2301*	1	mg/kg	16000
Barium	Antimony	DETSC 2301*	1	mg/kg	9.5
Beryllium	Arsenic	DETSC 2301#	0.2	mg/kg	14
Boron, Water Soluble   DETSC 2311#   0.2 mg/kg   3.2	Barium	DETSC 2301#	1.5	mg/kg	250
Cadmium         DETSC 2301#         0.1         mg/kg         1.0           Chromium         DETSC 2301#         0.15         mg/kg         19           Chromium, Hexavalent         DETSC 2204*         1         mg/kg         <1.0	Beryllium	DETSC 2301#	0.2	mg/kg	1.9
Chromium         DETSC 2301#         0.15         mg/kg         19           Chromium, Hexavalent         DETSC 2204*         1         mg/kg         < 1.0	Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.2
Chromium, Hexavalent         DETSC 2204*         1         mg/kg         < 1.0           Copper         DETSC 2301#         0.2         mg/kg         420           Iron         DETSC 2301         25         mg/kg         35000           Lead         DETSC 2301#         0.3         mg/kg         210           Magnesium         DETSC 2301*         1         mg/kg         9000           Manganese         DETSC 2301#         20         mg/kg         1700           Mercury         DETSC 2325#         0.05         mg/kg         0.17           Molybdenum         DETSC 2301#         0.4         mg/kg         1.0           Nickel         DETSC 2301#         1         mg/kg         69000           Vanadium         DETSC 2301#         1         mg/kg         69000           Vanadium         DETSC 2301#         1         mg/kg         350           Inorganics         DETSC 2301#         1         mg/kg         350           Inorganics         DETSC 2008#         pH         9.6           Calorific Value         DETSC 2008#         pH         9.6           Calorific Value         DETSC 230#         0.1         mg/kg         31	Cadmium	DETSC 2301#	0.1	mg/kg	1.0
Copper         DETSC 2301#         0.2 mg/kg         420           Iron         DETSC 2301         25 mg/kg         35000           Lead         DETSC 2301#         0.3 mg/kg         210           Magnesium         DETSC 2301*         1 mg/kg         9000           Manganese         DETSC 2301#         20 mg/kg         1700           Mercury         DETSC 2325#         0.05 mg/kg         0.17           Molybdenum         DETSC 2301#         0.4 mg/kg         1.0           Nickel         DETSC 2301#         1 mg/kg         17           Silicon         DETSC 2301#         1 mg/kg         69000           Vanadium         DETSC 2301#         0.8 mg/kg         57           Zinc         DETSC 2301#         1 mg/kg         350           Inorganics         1 mg/kg         350           Inorganics         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 2008#         pH         9.6           Calorific Value         DETSC 2130#         0.1 mg/kg         31           Cyanide, Total         DETSC 2130#         0.1 mg/kg         < 0.1	Chromium	DETSC 2301#	0.15	mg/kg	19
DETSC 2301   25 mg/kg   35000	Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
DETSC 2301#   0.3 mg/kg   210	Copper	DETSC 2301#	0.2	mg/kg	420
Magnesium         DETSC 2301*         1         mg/kg         9000           Manganese         DETSC 2301#         20         mg/kg         1700           Mercury         DETSC 2325#         0.05         mg/kg         0.17           Molybdenum         DETSC 2301#         0.4         mg/kg         1.0           Nickel         DETSC 2301#         1         mg/kg         69000           Vanadium         DETSC 2301#         0.8         mg/kg         57           Zinc         DETSC 2301#         1         mg/kg         350           Inorganics         Inorganics         DETSC 2003#         0.01         %           PH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 2008#         pH         9.6           Cyanide, Total         DETSC 2130#         0.1         mg/kg         31           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Iron	DETSC 2301	25	mg/kg	35000
Manganese         DETSC 2301#         20         mg/kg         1700           Mercury         DETSC 2325#         0.05         mg/kg         0.17           Molybdenum         DETSC 2301#         0.4         mg/kg         1.0           Nickel         DETSC 2301#         1         mg/kg         17           Silicon         DETSC 2301*         10         mg/kg         69000           Vanadium         DETSC 2301#         0.8         mg/kg         350           Inorganics         Inglition at 4400C         DETSC 2301#         0.01         %           pH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 2008#         pH         9.6           Cyanide, Total         DETSC 2130#         0.1         mg/kg         13           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Lead	DETSC 2301#	0.3	mg/kg	210
Mercury         DETSC 2325#         0.05         mg/kg         0.17           Molybdenum         DETSC 2301#         0.4         mg/kg         1.0           Nickel         DETSC 2301#         1         mg/kg         17           Silicon         DETSC 2301*         10         mg/kg         69000           Vanadium         DETSC 2301#         0.8         mg/kg         57           Zinc         DETSC 2301#         1         mg/kg         350           Inorganics         Inorganics         DETSC 2003#         0.01         %           PH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         13           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Magnesium	DETSC 2301*	1	mg/kg	9000
Molybdenum         DETSC 2301#         0.4 mg/kg         1.0           Nickel         DETSC 2301#         1 mg/kg         17           Silicon         DETSC 2301*         10 mg/kg         69000           Vanadium         DETSC 2301#         0.8 mg/kg         57           Zinc         DETSC 2301#         1 mg/kg         350           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         13           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	Manganese	DETSC 2301#	20	mg/kg	1700
Nickel   DETSC 2301#	Mercury	DETSC 2325#	0.05	mg/kg	0.17
Silicon	Molybdenum	DETSC 2301#	0.4	mg/kg	1.0
Vanadium         DETSC 2301#         0.8 mg/kg         57           Zinc         DETSC 2301#         1 mg/kg         350           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01 %           pH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         13           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	Nickel	DETSC 2301#	1	mg/kg	17
DETSC 2301#	Silicon	DETSC 2301*	10	mg/kg	69000
Inorganics   DETSC 2003#   0.01   %	Vanadium	DETSC 2301#	0.8	mg/kg	57
DETSC 2003#   0.01   %	Zinc	DETSC 2301#	1	mg/kg	350
pH         DETSC 2008#         pH         9.6           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         13           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Inorganics				
Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         13           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
Cyanide, Total         DETSC 2130#         0.1         mg/kg         13           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	рН	DETSC 2008#		рН	9.6
Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         0.7           Organic matter         DETSC 2002#         0.1 %         5.8           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         590	Calorific Value	DETSC 5008	1	MJ/kg	
Thiocyanate         DETSC 2130#         0.6 mg/kg         0.7           Organic matter         DETSC 2002#         0.1 %         5.8           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         590	Cyanide, Total	DETSC 2130#	0.1	mg/kg	13
Organic matter         DETSC 2002#         0.1         %         5.8           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         590	Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Sulphate Aqueous Extract as SO4 DETSC 2076# 10 mg/l 590	Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
·	Organic matter	DETSC 2002#	0.1	%	5.8
Sulphur (free)         DETSC 3049#         0.75         mg/kg         5.2	Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	590
	Sulphur (free)	DETSC 3049#	0.75	mg/kg	5.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665991
Sample ID	PRAIRIE_AUK_TP146C_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	6.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	16
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	45
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	99
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	170
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1.3
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.6
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	13
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	55
Aromatic C5-C35	DETSC 3072*	10	mg/kg	71
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	240
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.32
Anthracene	DETSC 3303	0.03	mg/kg	0.07
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.0
Pyrene	DETSC 3303#	0.03	mg/kg	0.91
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.43
Chrysene	DETSC 3303	0.03	mg/kg	0.40
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.44
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.19
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.30
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665991
Sample ID	PRAIRIE_AUK_TP146C_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.16
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665991
Sample ID	PRAIRIE_AUK_TP146C_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665992
Sample ID	PRAIRIE_AUK_TP156A_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	26000
Antimony	DETSC 2301*	1	mg/kg	6.5
Arsenic	DETSC 2301#	0.2	mg/kg	31
Barium	DETSC 2301#	1.5	mg/kg	540
Beryllium	DETSC 2301#	0.2	mg/kg	2.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	170
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	110
Iron	DETSC 2301	25	mg/kg	140000
Lead	DETSC 2301#	0.3	mg/kg	110
Magnesium	DETSC 2301*	1	mg/kg	17000
Manganese	DETSC 2301#	20	mg/kg	6100
Mercury	DETSC 2325#	0.05	mg/kg	0.69
Molybdenum	DETSC 2301#	0.4	mg/kg	2.2
Nickel	DETSC 2301#	1	mg/kg	40
Silicon	DETSC 2301*	10	mg/kg	43000
Vanadium	DETSC 2301#	0.8	mg/kg	700
Zinc	DETSC 2301#	1	mg/kg	310
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	12
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	280
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665992
Sample ID	PRAIRIE_AUK_TP156A_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs		•		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.63
Anthracene	DETSC 3303	0.03	mg/kg	0.17
Fluoranthene	DETSC 3303#	0.03	mg/kg	3.0
Pyrene	DETSC 3303#	0.03	mg/kg	3.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.6
Chrysene	DETSC 3303	0.03	mg/kg	1.3
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.0
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.79
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.2
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.58



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665992
Sample ID	PRAIRIE_AUK_TP156A_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.15
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.77
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	15



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665992
Sample ID	PRAIRIE_AUK_TP156A_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665993
Sample ID	PRAIRIE_AUK_TP162_SO_0170
Depth	1.70
Other ID	3A
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	16000
Antimony	DETSC 2301*	1	mg/kg	18
Arsenic	DETSC 2301#	0.2	mg/kg	2100
Barium	DETSC 2301#	1.5	mg/kg	320
Beryllium	DETSC 2301#	0.2	mg/kg	2.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.2
Cadmium	DETSC 2301#	0.1	mg/kg	1.7
Chromium	DETSC 2301#	0.15	mg/kg	100
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	190
Iron	DETSC 2301	25	mg/kg	360000
Lead	DETSC 2301#	0.3	mg/kg	870
Magnesium	DETSC 2301*	1	mg/kg	3500
Manganese	DETSC 2301#	20	mg/kg	2800
Mercury	DETSC 2325#	0.05	mg/kg	0.73
Molybdenum	DETSC 2301#	0.4	mg/kg	73
Nickel	DETSC 2301#	1	mg/kg	160
Silicon	DETSC 2301*	10	mg/kg	53000
Vanadium	DETSC 2301#	0.8	mg/kg	310
Zinc	DETSC 2301#	1	mg/kg	630
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	3.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665993
Sample ID	PRAIRIE_AUK_TP162_SO_0170
Depth	1.70
Other ID	3A
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	4.2
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	5.1
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	0.7
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.03
Pyrene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665993
Sample ID	PRAIRIE_AUK_TP162_SO_0170
Depth	1.70
Other ID	3A
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665993
Sample ID	PRAIRIE_AUK_TP162_SO_0170
Depth	1.70
Other ID	3A
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665994
Sample ID	PRAIRIE_AUK_TP180_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	5.6
Arsenic	DETSC 2301#	0.2	mg/kg	12
Barium	DETSC 2301#	1.5	mg/kg	270
Beryllium	DETSC 2301#	0.2	mg/kg	1.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	310
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	31
Iron	DETSC 2301	25	mg/kg	99000
Lead	DETSC 2301#	0.3	mg/kg	94
Magnesium	DETSC 2301*	1	mg/kg	23000
Manganese	DETSC 2301#	20	mg/kg	28000
Mercury	DETSC 2325#	0.05	mg/kg	0.47
Molybdenum	DETSC 2301#	0.4	mg/kg	2.8
Nickel	DETSC 2301#	1	mg/kg	16
Silicon	DETSC 2301*	10	mg/kg	67000
Vanadium	DETSC 2301#	0.8	mg/kg	1200
Zinc	DETSC 2301#	1	mg/kg	270
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665994
Sample ID	PRAIRIE_AUK_TP180_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

		- Jun 1	اءو.	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.24
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.11
Fluorene	DETSC 3303	0.03	mg/kg	0.09
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.8
Anthracene	DETSC 3303	0.03	mg/kg	0.79
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.2
Pyrene	DETSC 3303#	0.03	mg/kg	2.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.82
Chrysene	DETSC 3303	0.03	mg/kg	0.90
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.86
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.37
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.43
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.19



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665994
Sample ID	PRAIRIE_AUK_TP180_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.27
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	11



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665994
Sample ID	PRAIRIE_AUK_TP180_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	53000
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	12
Barium	DETSC 2301#	1.5	mg/kg	170
Beryllium	DETSC 2301#	0.2	mg/kg	7.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	12
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	40
Iron	DETSC 2301	25	mg/kg	6800
Lead	DETSC 2301#	0.3	mg/kg	15
Magnesium	DETSC 2301*	1	mg/kg	16000
Manganese	DETSC 2301#	20	mg/kg	1200
Mercury	DETSC 2325#	0.05	mg/kg	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	0.5
Nickel	DETSC 2301#	1	mg/kg	2.5
Silicon	DETSC 2301*	10	mg/kg	63000
Vanadium	DETSC 2301#	0.8	mg/kg	41
Zinc	DETSC 2301#	1	mg/kg	39
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1300
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.4
Thiocyanate	DETSC 2130#	0.6	mg/kg	8.9
Organic matter	DETSC 2002#	0.1	%	1.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	480
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.35
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1.7
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	96
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	40
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	7.1
Aromatic C5-C35	DETSC 3072*	10	mg/kg	150
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	150
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.85
Acenaphthylene	DETSC 3303#	0.03	mg/kg	4.1
Acenaphthene	DETSC 3303#	0.03	mg/kg	20
Fluorene	DETSC 3303	0.03	mg/kg	11
Phenanthrene	DETSC 3303#	0.03	mg/kg	7.8
Anthracene	DETSC 3303	0.03	mg/kg	11
Fluoranthene	DETSC 3303#	0.03	mg/kg	11
Pyrene	DETSC 3303#	0.03	mg/kg	7.5
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.6
Chrysene	DETSC 3303	0.03	mg/kg	1.4
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.70
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.30
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.53
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.14
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	78



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666343
Sample ID	PRAIRIE_AUK_TP135_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	25000
Antimony	DETSC 2301*	1	mg/kg	4.5
Arsenic	DETSC 2301#	0.2	mg/kg	61
Barium	DETSC 2301#	1.5	mg/kg	500
Beryllium	DETSC 2301#	0.2	mg/kg	3.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	52
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	100
Iron	DETSC 2301	25	mg/kg	3200
Lead	DETSC 2301#	0.3	mg/kg	220
Magnesium	DETSC 2301*	1	mg/kg	15000
Manganese	DETSC 2301#	20	mg/kg	5300
Mercury	DETSC 2325#	0.05	mg/kg	0.37
Molybdenum	DETSC 2301#	0.4	mg/kg	5.4
Nickel	DETSC 2301#	1	mg/kg	33
Silicon	DETSC 2301*	10	mg/kg	64000
Vanadium	DETSC 2301#	0.8	mg/kg	120
Zinc	DETSC 2301#	1	mg/kg	270
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.6
Organic matter	DETSC 2002#	0.1	%	3.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	400
Sulphur (free)	DETSC 3049#	0.75	mg/kg	0.83



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666343
Sample ID	PRAIRIE_AUK_TP135_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.05
Fluorene	DETSC 3303	0.03	mg/kg	0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.57
Anthracene	DETSC 3303	0.03	mg/kg	0.18
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.3
Pyrene	DETSC 3303#	0.03	mg/kg	3.4
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.1
Chrysene	DETSC 3303	0.03	mg/kg	1.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.3
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.53
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.87
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.37



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666343
Sample ID	PRAIRIE_AUK_TP135_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.10
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.47
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666343
Sample ID	PRAIRIE_AUK_TP135_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	38000
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	7.0
Barium	DETSC 2301#	1.5	mg/kg	160
Beryllium	DETSC 2301#	0.2	mg/kg	5.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	9.1
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	15
Iron	DETSC 2301	25	mg/kg	8900
Lead	DETSC 2301#	0.3	mg/kg	5.0
Magnesium	DETSC 2301*	1	mg/kg	17000
Manganese	DETSC 2301#	20	mg/kg	870
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.5
Nickel	DETSC 2301#	1	mg/kg	5.9
Silicon	DETSC 2301*	10	mg/kg	64000
Vanadium	DETSC 2301#	0.8	mg/kg	31
Zinc	DETSC 2301#	1	mg/kg	54
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	0.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	840
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666345
Sample ID	PRAIRIE_AUK_TP136_SO_0290
Depth	2.90
Other ID	10
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	1.2
Arsenic	DETSC 2301#	0.2	mg/kg	9.3
Barium	DETSC 2301#	1.5	mg/kg	310
Beryllium	DETSC 2301#	0.2	mg/kg	1.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	26
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	29
Iron	DETSC 2301	25	mg/kg	40000
Lead	DETSC 2301#	0.3	mg/kg	35
Magnesium	DETSC 2301*	1	mg/kg	6200
Manganese	DETSC 2301#	20	mg/kg	700
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.4
Nickel	DETSC 2301#	1	mg/kg	37
Silicon	DETSC 2301*	10	mg/kg	170000
Vanadium	DETSC 2301#	0.8	mg/kg	31
Zinc	DETSC 2301#	1	mg/kg	100
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1666345
Sample ID	PRAIRIE_AUK_TP136_SO_0290
Depth	2.90
Other ID	10
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666345
Sample ID	PRAIRIE_AUK_TP136_SO_0290
Depth	2.90
Other ID	10
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666345
Sample ID	PRAIRIE_AUK_TP136_SO_0290
Depth	2.90
Other ID	10
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666346
Sample ID	PRAIRIE_AUK_TP165_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	5900
Antimony	DETSC 2301*	1	mg/kg	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	23
Barium	DETSC 2301#	1.5	mg/kg	150
Beryllium	DETSC 2301#	0.2	mg/kg	0.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	28
Iron	DETSC 2301	25	mg/kg	41000
Lead	DETSC 2301#	0.3	mg/kg	43
Magnesium	DETSC 2301*	1	mg/kg	10000
Manganese	DETSC 2301#	20	mg/kg	18000
Mercury	DETSC 2325#	0.05	mg/kg	0.11
Molybdenum	DETSC 2301#	0.4	mg/kg	1.6
Nickel	DETSC 2301#	1	mg/kg	15
Silicon	DETSC 2301*	10	mg/kg	53000
Vanadium	DETSC 2301#	0.8	mg/kg	470
Zinc	DETSC 2301#	1	mg/kg	120
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.6
Organic matter	DETSC 2002#	0.1	%	13
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666346
Sample ID	PRAIRIE_AUK_TP165_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.42
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.05
Fluorene	DETSC 3303	0.03	mg/kg	0.07
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.91
Anthracene	DETSC 3303	0.03	mg/kg	0.26
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.0
Pyrene	DETSC 3303#	0.03	mg/kg	0.83
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.40
Chrysene	DETSC 3303	0.03	mg/kg	0.51
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.49
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.18
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.26
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.15



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666346
Sample ID	PRAIRIE_AUK_TP165_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.19
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	5.8



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666346
Sample ID	PRAIRIE_AUK_TP165_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666347
Sample ID	PRAIRIE_AUK_TP167_SO_0250
Depth	2.50
Other ID	6
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	11000
Antimony	DETSC 2301*	1	mg/kg	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	5.8
Barium	DETSC 2301#	1.5	mg/kg	220
Beryllium	DETSC 2301#	0.2	mg/kg	0.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	17
Iron	DETSC 2301	25	mg/kg	42000
Lead	DETSC 2301#	0.3	mg/kg	31
Magnesium	DETSC 2301*	1	mg/kg	17000
Manganese	DETSC 2301#	20	mg/kg	8400
Mercury	DETSC 2325#	0.05	mg/kg	0.13
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0
Nickel	DETSC 2301#	1	mg/kg	12
Silicon	DETSC 2301*	10	mg/kg	64000
Vanadium	DETSC 2301#	0.8	mg/kg	410
Zinc	DETSC 2301#	1	mg/kg	78
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	220
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666347
Sample ID	PRAIRIE_AUK_TP167_SO_0250
Depth	2.50
Other ID	6
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.20
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.06
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09
Fluorene	DETSC 3303	0.03	mg/kg	0.12
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.5
Anthracene	DETSC 3303	0.03	mg/kg	0.37
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.8
Pyrene	DETSC 3303#	0.03	mg/kg	1.4
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.55
Chrysene	DETSC 3303	0.03	mg/kg	0.69
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.69
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.26
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.32
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.20



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666347
Sample ID	PRAIRIE_AUK_TP167_SO_0250
Depth	2.50
Other ID	6
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.24
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	8.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666347
Sample ID	PRAIRIE_AUK_TP167_SO_0250
Depth	2.50
Other ID	6
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666348
Sample ID	PRAIRIE_AUK_TP169_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	8600
Antimony	DETSC 2301*	1	mg/kg	1.7
Arsenic	DETSC 2301#	0.2	mg/kg	7.3
Barium	DETSC 2301#	1.5	mg/kg	120
Beryllium	DETSC 2301#	0.2	mg/kg	0.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	46
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	39
Iron	DETSC 2301	25	mg/kg	27000
Lead	DETSC 2301#	0.3	mg/kg	68
Magnesium	DETSC 2301*	1	mg/kg	6300
Manganese	DETSC 2301#	20	mg/kg	2000
Mercury	DETSC 2325#	0.05	mg/kg	0.10
Molybdenum	DETSC 2301#	0.4	mg/kg	1.7
Nickel	DETSC 2301#	1	mg/kg	24
Silicon	DETSC 2301*	10	mg/kg	110000
Vanadium	DETSC 2301#	0.8	mg/kg	75
Zinc	DETSC 2301#	1	mg/kg	150
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.8
Organic matter	DETSC 2002#	0.1	%	13
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666348
Sample ID	PRAIRIE_AUK_TP169_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.38
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.09
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.13
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.9
Anthracene	DETSC 3303	0.03	mg/kg	0.50
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.1
Pyrene	DETSC 3303#	0.03	mg/kg	1.7
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.65
Chrysene	DETSC 3303	0.03	mg/kg	0.67
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.56
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.22
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.31
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666348
Sample ID	PRAIRIE_AUK_TP169_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.16
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	9.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666348
Sample ID	PRAIRIE_AUK_TP169_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666610
Sample ID	PRAIRIE_AUK_BH108_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	17000
Antimony	DETSC 2301*	1	mg/kg	2.0
Arsenic	DETSC 2301#	0.2	mg/kg	10
Barium	DETSC 2301#	1.5	mg/kg	240
Beryllium	DETSC 2301#	0.2	mg/kg	1.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	76
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	46
Iron	DETSC 2301	25	mg/kg	46000
Lead	DETSC 2301#	0.3	mg/kg	38
Magnesium	DETSC 2301*	1	mg/kg	12000
Manganese	DETSC 2301#	20	mg/kg	1800
Mercury	DETSC 2325#	0.05	mg/kg	0.27
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0
Nickel	DETSC 2301#	1	mg/kg	37
Silicon	DETSC 2301*	10	mg/kg	160000
Vanadium	DETSC 2301#	0.8	mg/kg	200
Zinc	DETSC 2301#	1	mg/kg	140
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	180
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1666610
Sample ID	PRAIRIE_AUK_BH108_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou		011113	
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.04
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.08
Pyrene	DETSC 3303#	0.03	mg/kg	0.07
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666610
Sample ID	PRAIRIE_AUK_BH108_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.23



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666610
Sample ID	PRAIRIE_AUK_BH108_SO_0250
Depth	2.50
Other ID	1
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	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	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666611
Sample ID	PRAIRIE_AUK_TP139B_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals	•			
Aluminium	DETSC 2301*	1	mg/kg	26000
Antimony	DETSC 2301*	1	mg/kg	5.4
Arsenic	DETSC 2301#	0.2	mg/kg	43
Barium	DETSC 2301#	1.5	mg/kg	810
Beryllium	DETSC 2301#	0.2	mg/kg	3.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	6.6
Cadmium	DETSC 2301#	0.1	mg/kg	1.9
Chromium	DETSC 2301#	0.15	mg/kg	77
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	94
Iron	DETSC 2301	25	mg/kg	84000
Lead	DETSC 2301#	0.3	mg/kg	410
Magnesium	DETSC 2301*	1	mg/kg	21000
Manganese	DETSC 2301#	20	mg/kg	16000
Mercury	DETSC 2325#	0.05	mg/kg	3.6
Molybdenum	DETSC 2301#	0.4	mg/kg	3.5
Nickel	DETSC 2301#	1	mg/kg	31
Silicon	DETSC 2301*	10	mg/kg	47000
Vanadium	DETSC 2301#	0.8	mg/kg	140
Zinc	DETSC 2301#	1	mg/kg	1200
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	220
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.4
Thiocyanate	DETSC 2130#	0.6	mg/kg	3.1
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	740
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666611
Sample ID	PRAIRIE_AUK_TP139B_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.45
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.10
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.60
Fluorene	DETSC 3303	0.03	mg/kg	0.55
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.5
Anthracene	DETSC 3303	0.03	mg/kg	0.34
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.6
Pyrene	DETSC 3303#	0.03	mg/kg	1.3
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.30
Chrysene	DETSC 3303	0.03	mg/kg	0.52
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.43
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.20
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

1666611
PRAIRIE_AUK_TP139B_SO_0030
0.30
3
ES
16/04/2020
n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.16
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	8.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666611
Sample ID	PRAIRIE_AUK_TP139B_SO_0030
Depth	0.30
Other ID	3
Sample Type	
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666612
Sample ID	PRAIRIE_AUK_TP139B_SO_0330
Depth	3.30
Other ID	6
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

		Units	
DETSC 1102	0.001	%	
DETSC 2301*	1	mg/kg	14000
DETSC 2301*	1	mg/kg	1.4
DETSC 2301#	0.2	mg/kg	7.8
DETSC 2301#	1.5	mg/kg	330
DETSC 2301#	0.2	mg/kg	1.0
DETSC 2311#	0.2	mg/kg	0.5
DETSC 2301#	0.1	mg/kg	0.2
DETSC 2301#	0.15	mg/kg	24
DETSC 2204*	1	mg/kg	< 1.0
DETSC 2301#	0.2	mg/kg	29
DETSC 2301	25	mg/kg	40000
DETSC 2301#	0.3	mg/kg	28
DETSC 2301*	1	mg/kg	8700
DETSC 2301#	20	mg/kg	700
DETSC 2325#	0.05	mg/kg	0.06
DETSC 2301#	0.4	mg/kg	0.4
DETSC 2301#	1	mg/kg	33
DETSC 2301*	10	mg/kg	160000
DETSC 2301#	0.8	mg/kg	30
DETSC 2301#	1	mg/kg	99
DETSC 2003#	0.01	%	
DETSC 2008#		рН	8.1
DETSC 5008	1	MJ/kg	
DETSC 2130#	0.1	mg/kg	2.0
DETSC 2130#	0.1	mg/kg	< 0.1
DETSC 2130#	0.6	mg/kg	< 0.6
DETSC 2002#	0.1	%	3.4
DETSC 2076#	10	mg/l	320
DETSC 3049#	0.75	mg/kg	< 0.75
	DETSC 2301* DETSC 2301# DETSC 2301 DETSC 2301# DETSC 2003# DETSC 2008# DETSC 2130# DETSC 2130# DETSC 2130# DETSC 2002# DETSC 2002# DETSC 2076#	DETSC 2301* 1 DETSC 2301# 0.2 DETSC 2301# 0.1 DETSC 2301# 0.1 DETSC 2301# 0.15 DETSC 2301# 0.2 DETSC 2301# 0.3 DETSC 2301# 0.3 DETSC 2301# 0.3 DETSC 2301# 1 DETSC 2301# 1 DETSC 2301# 1 DETSC 2301# 0.4 DETSC 2301# 1 DETSC 2301# 0.8 DETSC 2301# 1 DETSC 2301# 0.8 DETSC 2301# 0.1 DETSC 2008# 0.01 DETSC 2130# 0.1 DETSC 2130# 0.1 DETSC 2130# 0.1 DETSC 2130# 0.6 DETSC 2002# 0.1 DETSC 2002# 0.1 DETSC 2002# 10	DETSC 2301*



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666612
Sample ID	PRAIRIE_AUK_TP139B_SO_0330
Depth	3.30
Other ID	6
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.31
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.36
Fluorene	DETSC 3303	0.03	mg/kg	0.27
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.33
Anthracene	DETSC 3303	0.03	mg/kg	0.06
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Pyrene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Chrysene	DETSC 3303	0.03	mg/kg	0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

 $08118, 20 \hbox{-} 08189, 20 \hbox{-} 08381, 20 \hbox{-} 09141, 20 \hbox{-}$ 

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666612
Sample ID	PRAIRIE_AUK_TP139B_SO_0330
Depth	3.30
Other ID	6
Sample Type	ES
Sampling Date	
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666612
Sample ID	PRAIRIE_AUK_TP139B_SO_0330
Depth	3.30
Other ID	6
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666613
Sample ID	PRAIRIE_AUK_TP148A_SO_0140
Depth	1.40
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Metals         Aluminium         DETSC 2301*         1         mg/kg         20000           Antimony         DETSC 2301*         1         mg/kg         2.7           Arsenic         DETSC 2301#         0.2         mg/kg         24           Barium         DETSC 2301#         0.2         mg/kg         330           Beryllium         DETSC 2301#         0.2         mg/kg         2.3           Boron, Water Soluble         DETSC 2311#         0.2         mg/kg         3.7           Cadmium         DETSC 2301#         0.1         mg/kg         3.7           Chromium         DETSC 2301#         0.1         mg/kg         6.9           Chromium, Hexavalent         DETSC 2301#         0.1         mg/kg         4.1.0           Copper         DETSC 2301#         0.2         mg/kg         3.9           Iron         DETSC 2301#         0.2         mg/kg         3.9           Iron         DETSC 2301#         0.2         mg/kg         3.9           Iron         DETSC 2301#         0.2         mg/kg         6.5           Magnesium         DETSC 2301#         0.3         mg/kg         1.4           Magnesium         DETSC 2301#	Test	Method	LOD	Units	
Aluminium    DETSC 2301*   1 mg/kg   20000	Asbestos Quantification	DETSC 1102	0.001	%	
Antimony DETSC 2301* 1 mg/kg 2.7 Arsenic DETSC 2301# 0.2 mg/kg 24 Barium DETSC 2301# 1.5 mg/kg 330 Beryllium DETSC 2301# 1.5 mg/kg 330 Beryllium DETSC 2301# 0.2 mg/kg 3.37 Cadmium DETSC 2301# 0.1 mg/kg 1.0 Chromium DETSC 2301# 0.1 mg/kg 1.0 Chromium DETSC 2301# 0.1 mg/kg 1.0 Chromium, Hexavalent DETSC 2301# 0.2 mg/kg 69 Chromium, Hexavalent DETSC 2301# 0.2 mg/kg 39 Iron DETSC 2301# 0.2 mg/kg 39 Iron DETSC 2301# 0.2 mg/kg 39 Iron DETSC 2301# 0.3 mg/kg 65 Magnesium DETSC 2301# 0.3 mg/kg 65 Magnesium DETSC 2301# 0.3 mg/kg 65 Magnese DETSC 2301# 0.0 mg/kg 14000 Mercury DETSC 2301# 0.0 mg/kg 14000 Mercury DETSC 2301# 0.4 mg/kg 1.3 Molybdenum DETSC 2301# 0.4 mg/kg 2.9 Nickel DETSC 2301# 0.4 mg/kg 2.9 Nickel DETSC 2301# 0.8 mg/kg 1.3 Zilicon DETSC 2301# 0.8 mg/kg 110 Zinc DETSC 2301# 0.1 mg/kg 220 Cyanide, Total DETSC 2130# 0.1 mg/kg 0.1 Thiocyanate DETSC 2130# 0.6 mg/kg 0.1 Thiocyanate DETSC 2302# 0.1 mg/kg 0.1 Thiocyanate DETSC 2002# 0.1 mg/kg 0.2 Sulphate Aqueous Extract as SO4 DETSC 2076# 10 mg/kl	Metals				
Arsenic         DETSC 2301#         0.2         mg/kg         24           Barium         DETSC 2301#         1.5         mg/kg         330           Beryllium         DETSC 2301#         0.2         mg/kg         2.3           Boron, Water Soluble         DETSC 2301#         0.1         mg/kg         3.7           Cadmium         DETSC 2301#         0.1         mg/kg         1.0           Chromium         DETSC 2301#         0.15         mg/kg         69           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         39           Iron         DETSC 2301#         0.3         mg/kg         65           Magnesium         DETSC 2301#         0.3         mg/kg         14000           Manganese         DETSC 2301#         20         mg/kg         16000           Mercury         DETSC 2301#         0.4         mg/kg         2.9           Nickel         DETSC 2301#         0.4	Aluminium	DETSC 2301*	1	mg/kg	20000
Barium	Antimony	DETSC 2301*	1	mg/kg	2.7
Beryllium         DETSC 2301#         0.2         mg/kg         2.3           Boron, Water Soluble         DETSC 2311#         0.2         mg/kg         3.7           Cadmium         DETSC 2301#         0.1         mg/kg         1.0           Chromium         DETSC 2301#         0.15         mg/kg         69           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         39           Cropper         DETSC 2301#         0.2         mg/kg         53000           Lead         DETSC 2301#         0.3         mg/kg         65           Magnesium         DETSC 2301#         0.3         mg/kg         14000           Manganese         DETSC 2301#         20         mg/kg         16000           Mercury         DETSC 2301#         20         mg/kg         1.3           Molybdenum         DETSC 2301#         0.4         mg/kg         2.9           Nickel         DETSC 2301#         1         mg/kg         2.3           Silicon         DETSC 2301#         1         mg/kg         23           Silicon         DETSC 2301#         1         mg/kg         51000           Vanadium         DETSC 2301#         1	Arsenic	DETSC 2301#	0.2	mg/kg	24
Boron, Water Soluble   DETSC 2311#   0.2 mg/kg   3.7	Barium	DETSC 2301#	1.5	mg/kg	330
Cadmium         DETSC 2301#         0.1         mg/kg         1.0           Chromium         DETSC 2301#         0.15         mg/kg         69           Chromium, Hexavalent         DETSC 2204*         1         mg/kg         <1.0	Beryllium	DETSC 2301#	0.2	mg/kg	2.3
Chromium         DETSC 2301#         0.15         mg/kg         69           Chromium, Hexavalent         DETSC 2204*         1         mg/kg         < 1.0	Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.7
Chromium, Hexavalent         DETSC 2204*         1         mg/kg         < 1.0           Copper         DETSC 2301#         0.2         mg/kg         39           Iron         DETSC 2301         25         mg/kg         53000           Lead         DETSC 2301#         0.3         mg/kg         65           Magnesium         DETSC 2301*         1         mg/kg         14000           Manganese         DETSC 2301#         20         mg/kg         16000           Mercury         DETSC 2325#         0.05         mg/kg         1.3           Molybdenum         DETSC 2301#         0.4         mg/kg         2.9           Nickel         DETSC 2301#         1         mg/kg         23           Silicon         DETSC 2301#         1         mg/kg         51000           Vanadium         DETSC 2301#         1         mg/kg         51000           Vanadium         DETSC 2301#         1         mg/kg         200           Inorganics         DETSC 2301#         1         mg/kg         200           Inorganics         DETSC 2008#         pH         11.3         1.3           Calorific Value         DETSC 2008#         pH <t< td=""><td>Cadmium</td><td>DETSC 2301#</td><td>0.1</td><td>mg/kg</td><td>1.0</td></t<>	Cadmium	DETSC 2301#	0.1	mg/kg	1.0
Copper         DETSC 2301#         0.2 mg/kg         39           Iron         DETSC 2301         25 mg/kg         53000           Lead         DETSC 2301#         0.3 mg/kg         65           Magnesium         DETSC 2301*         1 mg/kg         14000           Manganese         DETSC 2301#         20 mg/kg         16000           Mercury         DETSC 2325#         0.05 mg/kg         1.3           Molybdenum         DETSC 2301#         0.4 mg/kg         2.9           Nickel         DETSC 2301#         1 mg/kg         23           Silicon         DETSC 2301#         10 mg/kg         51000           Vanadium         DETSC 2301#         0.8 mg/kg         110           Zinc         DETSC 2301#         1 mg/kg         200           Inorganics         Imag/kg         200           Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 2008#         pH         11.3           Cyanide, Total         DETSC 2130#         0.1 mg/kg         22           Cyanide, Free         DETSC 2130#         0.6 mg/kg         0.1	Chromium	DETSC 2301#	0.15	mg/kg	69
Sample   S	Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Lead         DETSC 2301#         0.3         mg/kg         65           Magnesium         DETSC 2301*         1         mg/kg         14000           Manganese         DETSC 2301#         20         mg/kg         16000           Mercury         DETSC 2325#         0.05         mg/kg         1.3           Molybdenum         DETSC 2301#         0.4         mg/kg         2.9           Nickel         DETSC 2301#         1         mg/kg         51000           Vanadium         DETSC 2301#         1.8         mg/kg         51000           Vanadium         DETSC 2301#         1         mg/kg         200           Inorganics         Imag/kg         200           Loss on Ignition at 4400C         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 2008#         pH         11.3           Cyanide, Total         DETSC 2130#         0.1         mg/kg         22           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6         mg/kg         1.2           Organic matter	Copper	DETSC 2301#	0.2	mg/kg	39
Magnesium         DETSC 2301*         1         mg/kg         14000           Manganese         DETSC 2301#         20         mg/kg         16000           Mercury         DETSC 2325#         0.05         mg/kg         1.3           Molybdenum         DETSC 2301#         0.4         mg/kg         2.9           Nickel         DETSC 2301#         1         mg/kg         23           Silicon         DETSC 2301*         10         mg/kg         51000           Vanadium         DETSC 2301#         1         mg/kg         110           Zinc         DETSC 2301#         1         mg/kg         200           Inorganics         Ing/kg         200           Loss on Ignition at 4400C         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 2008#         pH         11.3           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.2           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6         mg/kg         0.2           Organic matter <td< td=""><td>Iron</td><td>DETSC 2301</td><td>25</td><td>mg/kg</td><td>53000</td></td<>	Iron	DETSC 2301	25	mg/kg	53000
Manganese         DETSC 2301#         20         mg/kg         16000           Mercury         DETSC 2325#         0.05         mg/kg         1.3           Molybdenum         DETSC 2301#         0.4         mg/kg         2.9           Nickel         DETSC 2301#         1         mg/kg         23           Silicon         DETSC 2301*         10         mg/kg         51000           Vanadium         DETSC 2301#         0.8         mg/kg         110           Zinc         DETSC 2301#         1         mg/kg         200           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         22           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6         mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10	Lead	DETSC 2301#	0.3	mg/kg	65
Mercury         DETSC 2325#         0.05 mg/kg         1.3           Molybdenum         DETSC 2301#         0.4 mg/kg         2.9           Nickel         DETSC 2301#         1 mg/kg         23           Silicon         DETSC 2301*         10 mg/kg         51000           Vanadium         DETSC 2301#         0.8 mg/kg         110           Zinc         DETSC 2301#         1 mg/kg         200           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         22           Cyanide, Free         DETSC 2130#         0.1 mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	Magnesium	DETSC 2301*	1	mg/kg	14000
Molybdenum         DETSC 2301#         0.4 mg/kg         2.9           Nickel         DETSC 2301#         1 mg/kg         23           Silicon         DETSC 2301*         10 mg/kg         51000           Vanadium         DETSC 2301#         0.8 mg/kg         110           Zinc         DETSC 2301#         1 mg/kg         200           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         22           Cyanide, Free         DETSC 2130#         0.1 mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	Manganese	DETSC 2301#	20	mg/kg	16000
Nickel         DETSC 2301#         1 mg/kg         23           Silicon         DETSC 2301*         10 mg/kg         51000           Vanadium         DETSC 2301#         0.8 mg/kg         110           Zinc         DETSC 2301#         1 mg/kg         200           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         22           Cyanide, Free         DETSC 2130#         0.1 mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	Mercury	DETSC 2325#	0.05	mg/kg	1.3
Silicon         DETSC 2301*         10         mg/kg         51000           Vanadium         DETSC 2301#         0.8         mg/kg         110           Zinc         DETSC 2301#         1         mg/kg         200           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         22           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6         mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         630	Molybdenum	DETSC 2301#	0.4	mg/kg	2.9
Vanadium         DETSC 2301#         0.8 mg/kg         110           Zinc         DETSC 2301#         1 mg/kg         200           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01 %           pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         22           Cyanide, Free         DETSC 2130#         0.1 mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1 %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	Nickel	DETSC 2301#	1	mg/kg	23
Zinc   DETSC 2301#   1   mg/kg   200	Silicon	DETSC 2301*	10	mg/kg	51000
Inorganics   DETSC 2003#   0.01   %	Vanadium	DETSC 2301#	0.8	mg/kg	110
DETSC 2003#   0.01   %	Zinc	DETSC 2301#	1	mg/kg	200
pH         DETSC 2008#         pH         11.3           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         22           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6         mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         630	Inorganics				
Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         22           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6         mg/kg         1.2           Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         630	Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
Cyanide, Total         DETSC 2130#         0.1 mg/kg         22           Cyanide, Free         DETSC 2130#         0.1 mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1 %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	рН	DETSC 2008#		рН	11.3
Cyanide, Free         DETSC 2130#         0.1 mg/kg         0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1 %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	Calorific Value	DETSC 5008	1	MJ/kg	
Thiocyanate         DETSC 2130#         0.6 mg/kg         1.2           Organic matter         DETSC 2002#         0.1 %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         630	Cyanide, Total	DETSC 2130#	0.1	mg/kg	22
Organic matter         DETSC 2002#         0.1         %         2.7           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         630	Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1
Sulphate Aqueous Extract as SO4 DETSC 2076# 10 mg/l 630	Thiocyanate	DETSC 2130#	0.6	mg/kg	1.2
1 1	Organic matter	DETSC 2002#	0.1	%	2.7
Sulphur (free)         DETSC 3049#         0.75         mg/kg         63	Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	630
	Sulphur (free)	DETSC 3049#	0.75	mg/kg	63



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666613
Sample ID	PRAIRIE_AUK_TP148A_SO_0140
Depth	1.40
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.23
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.27
Fluorene	DETSC 3303	0.03	mg/kg	0.21
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.5
Anthracene	DETSC 3303	0.03	mg/kg	0.18
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.2
Pyrene	DETSC 3303#	0.03	mg/kg	1.8
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.50
Chrysene	DETSC 3303	0.03	mg/kg	0.77
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.66
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.29
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.44
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.20



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

. 01110	
Lab No	1666613
Sample ID	PRAIRIE_AUK_TP148A_SO_0140
Depth	1.40
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.24
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	9.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666613
Sample ID	PRAIRIE_AUK_TP148A_SO_0140
Depth	1.40
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666614
Sample ID	PRAIRIE_AUK_TP150_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.009
Metals				
Aluminium	DETSC 2301*	1	mg/kg	7700
Antimony	DETSC 2301*	1	mg/kg	7.6
Arsenic	DETSC 2301#	0.2	mg/kg	30
Barium	DETSC 2301#	1.5	mg/kg	400
Beryllium	DETSC 2301#	0.2	mg/kg	0.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	1.3
Chromium	DETSC 2301#	0.15	mg/kg	75
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	130
Iron	DETSC 2301	25	mg/kg	180000
Lead	DETSC 2301#	0.3	mg/kg	420
Magnesium	DETSC 2301*	1	mg/kg	8200
Manganese	DETSC 2301#	20	mg/kg	2400
Mercury	DETSC 2325#	0.05	mg/kg	2.6
Molybdenum	DETSC 2301#	0.4	mg/kg	5.8
Nickel	DETSC 2301#	1	mg/kg	54
Silicon	DETSC 2301*	10	mg/kg	53000
Vanadium	DETSC 2301#	0.8	mg/kg	110
Zinc	DETSC 2301#	1	mg/kg	830
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	8.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	350
Sulphur (free)	DETSC 3049#	0.75	mg/kg	3.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666614
Sample ID	PRAIRIE_AUK_TP150_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.53
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.67
Fluorene	DETSC 3303	0.03	mg/kg	0.49
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.6
Anthracene	DETSC 3303	0.03	mg/kg	0.34
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.1
Pyrene	DETSC 3303#	0.03	mg/kg	1.7
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.50
Chrysene	DETSC 3303	0.03	mg/kg	0.68
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.67
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.28
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.36
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.20



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666614
Sample ID	PRAIRIE_AUK_TP150_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.24
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666614
Sample ID	PRAIRIE_AUK_TP150_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666615
Sample ID	PRAIRIE_AUK_TP159_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.002
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	6.1
Barium	DETSC 2301#	1.5	mg/kg	340
Beryllium	DETSC 2301#	0.2	mg/kg	3.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	53
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	14
Iron	DETSC 2301	25	mg/kg	18000
Lead	DETSC 2301#	0.3	mg/kg	13
Magnesium	DETSC 2301*	1	mg/kg	12000
Manganese	DETSC 2301#	20	mg/kg	4600
Mercury	DETSC 2325#	0.05	mg/kg	0.13
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7
Nickel	DETSC 2301#	1	mg/kg	5.8
Silicon	DETSC 2301*	10	mg/kg	59000
Vanadium	DETSC 2301#	0.8	mg/kg	160
Zinc	DETSC 2301#	1	mg/kg	65
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.9
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.5
Organic matter	DETSC 2002#	0.1	%	2.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	550
Sulphur (free)	DETSC 3049#	0.75	mg/kg	12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666615
Sample ID	PRAIRIE_AUK_TP159_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

<b>-</b> .		-		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	18
Aromatic C5-C35	DETSC 3072*	10	mg/kg	18
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	18
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs		•		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.20
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.08
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.23
Fluorene	DETSC 3303	0.03	mg/kg	0.16
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.27
Anthracene	DETSC 3303	0.03	mg/kg	0.10
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.1
Pyrene	DETSC 3303#	0.03	mg/kg	1.6
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.39
Chrysene	DETSC 3303	0.03	mg/kg	0.73
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.5
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.70
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.77
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.49



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666615
Sample ID	PRAIRIE_AUK_TP159_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.14
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.59
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	9.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666615
Sample ID	PRAIRIE_AUK_TP159_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666616
Sample ID	PRAIRIE_AUK_TP190A_SO_0110
Depth	1.10
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.003
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	1.6
Arsenic	DETSC 2301#	0.2	mg/kg	21
Barium	DETSC 2301#	1.5	mg/kg	560
Beryllium	DETSC 2301#	0.2	mg/kg	1.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	6.6
Cadmium	DETSC 2301#	0.1	mg/kg	1.5
Chromium	DETSC 2301#	0.15	mg/kg	24
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	54
Iron	DETSC 2301	25	mg/kg	34000
Lead	DETSC 2301#	0.3	mg/kg	160
Magnesium	DETSC 2301*	1	mg/kg	8900
Manganese	DETSC 2301#	20	mg/kg	24000
Mercury	DETSC 2325#	0.05	mg/kg	1.8
Molybdenum	DETSC 2301#	0.4	mg/kg	3.6
Nickel	DETSC 2301#	1	mg/kg	24
Silicon	DETSC 2301*	10	mg/kg	62000
Vanadium	DETSC 2301#	0.8	mg/kg	49
Zinc	DETSC 2301#	1	mg/kg	630
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	240
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.6
Thiocyanate	DETSC 2130#	0.6	mg/kg	4.7
Organic matter	DETSC 2002#	0.1	%	2.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	530
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1666616
Sample ID	PRAIRIE_AUK_TP190A_SO_0110
Depth	1.10
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Took	Mathad	LOD	امادا	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	•	•		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.16
Fluorene	DETSC 3303	0.03	mg/kg	0.09
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.4
Anthracene	DETSC 3303	0.03	mg/kg	0.14
Fluoranthene	DETSC 3303#	0.03	mg/kg	3.0
Pyrene	DETSC 3303#	0.03	mg/kg	2.8
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.96
Chrysene	DETSC 3303	0.03	mg/kg	1.1
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.2
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.51
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.80
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.31



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149 Client Ref 4251

Lab No	1666616
Sample ID	PRAIRIE_AUK_TP190A_SO_0110
Depth	1.10
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.09
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.38
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

1666616
PRAIRIE_AUK_TP190A_SO_0110
1.10
3
ES
16/04/2020
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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667231
Sample ID	PRAIRIE_AUK_BH105_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	13000
Antimony	DETSC 2301*	1	mg/kg	2.0
Arsenic	DETSC 2301#	0.2	mg/kg	8.7
Barium	DETSC 2301#	1.5	mg/kg	170
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	34
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	40
Iron	DETSC 2301	25	mg/kg	41000
Lead	DETSC 2301#	0.3	mg/kg	40
Magnesium	DETSC 2301*	1	mg/kg	10000
Manganese	DETSC 2301#	20	mg/kg	730
Mercury	DETSC 2325#	0.05	mg/kg	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	1.0
Nickel	DETSC 2301#	1	mg/kg	37
Silicon	DETSC 2301*	10	mg/kg	160000
Vanadium	DETSC 2301#	0.8	mg/kg	41
Zinc	DETSC 2301#	1	mg/kg	140
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	220
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667231
Sample ID	PRAIRIE_AUK_BH105_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.04
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

 $08118, 20\hbox{-}08189, 20\hbox{-}08381, 20\hbox{-}09141, 20\hbox{-}$ 

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667231
Sample ID	PRAIRIE_AUK_BH105_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
<b>Sampling Date</b>	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667231
Sample ID	PRAIRIE_AUK_BH105_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667232
Sample ID	PRAIRIE_AUK_TP126_SO_0260
Depth	2.60
Other ID	5
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	9800
Antimony	DETSC 2301*	1	mg/kg	4.1
Arsenic	DETSC 2301#	0.2	mg/kg	13
Barium	DETSC 2301#	1.5	mg/kg	160
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	5.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	50
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	86
Iron	DETSC 2301	25	mg/kg	110000
Lead	DETSC 2301#	0.3	mg/kg	82
Magnesium	DETSC 2301*	1	mg/kg	7500
Manganese	DETSC 2301#	20	mg/kg	2200
Mercury	DETSC 2325#	0.05	mg/kg	0.22
Molybdenum	DETSC 2301#	0.4	mg/kg	2.2
Nickel	DETSC 2301#	1	mg/kg	28
Silicon	DETSC 2301*	10	mg/kg	23000
Vanadium	DETSC 2301#	0.8	mg/kg	160
Zinc	DETSC 2301#	1	mg/kg	440
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	7.9
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.2
Organic matter	DETSC 2002#	0.1	%	12
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1200
Sulphur (free)	DETSC 3049#	0.75	mg/kg	24



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667232
Sample ID	PRAIRIE_AUK_TP126_SO_0260
Depth	2.60
Other ID	5
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.14
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.30
Fluorene	DETSC 3303	0.03	mg/kg	0.29
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.73
Anthracene	DETSC 3303	0.03	mg/kg	0.77
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.56
Pyrene	DETSC 3303#	0.03	mg/kg	0.45
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.19
Chrysene	DETSC 3303	0.03	mg/kg	0.19
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.20
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.09
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.07



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667232
Sample ID	PRAIRIE_AUK_TP126_SO_0260
Depth	2.60
Other ID	5
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.07
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667232
Sample ID	PRAIRIE_AUK_TP126_SO_0260
Depth	2.60
Other ID	5
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	3300
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	5.4
Barium	DETSC 2301#	1.5	mg/kg	89
Beryllium	DETSC 2301#	0.2	mg/kg	0.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.3
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	8.8
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	35
Iron	DETSC 2301	25	mg/kg	4800
Lead	DETSC 2301#	0.3	mg/kg	27
Magnesium	DETSC 2301*	1	mg/kg	1500
Manganese	DETSC 2301#	20	mg/kg	61
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	12
Silicon	DETSC 2301*	10	mg/kg	140000
Vanadium	DETSC 2301#	0.8	mg/kg	10
Zinc	DETSC 2301#	1	mg/kg	39
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	25
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.20
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	25
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	2.1
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	28
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	2.2
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	320
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1400
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	6.4
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	1700
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	1700
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	520
Acenaphthylene	DETSC 3303#	0.03	mg/kg	5.5
Acenaphthene	DETSC 3303#	0.03	mg/kg	520
Fluorene	DETSC 3303	0.03	mg/kg	100
Phenanthrene	DETSC 3303#	0.03	mg/kg	5.1
Anthracene	DETSC 3303	0.03	mg/kg	1.1
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.34
Pyrene	DETSC 3303#	0.03	mg/kg	0.24
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.15
Chrysene	DETSC 3303	0.03	mg/kg	0.16
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.10
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.08
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1200



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667234
Sample ID	PRAIRIE_AUK_TP129_SO_0210
Depth	2.10
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	11000
Antimony	DETSC 2301*	1	mg/kg	1.4
Arsenic	DETSC 2301#	0.2	mg/kg	8.2
Barium	DETSC 2301#	1.5	mg/kg	430
Beryllium	DETSC 2301#	0.2	mg/kg	1.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	25
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	29
Iron	DETSC 2301	25	mg/kg	35000
Lead	DETSC 2301#	0.3	mg/kg	40
Magnesium	DETSC 2301*	1	mg/kg	4100
Manganese	DETSC 2301#	20	mg/kg	1300
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	39
Silicon	DETSC 2301*	10	mg/kg	180000
Vanadium	DETSC 2301#	0.8	mg/kg	33
Zinc	DETSC 2301#	1	mg/kg	140
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	270
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667234
Sample ID	PRAIRIE_AUK_TP129_SO_0210
Depth	2.10
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	3.2
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	3.6
Fluorene	DETSC 3303	0.03	mg/kg	0.66
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.09
Anthracene	DETSC 3303	0.03	mg/kg	0.09
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

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Client Ref 4251

Lab No	1667234
Sample ID	PRAIRIE_AUK_TP129_SO_0210
Depth	2.10
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667234
Sample ID	PRAIRIE_AUK_TP129_SO_0210
Depth	2.10
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667235
Sample ID	PRAIRIE_AUK_TP130_SO_0100
Depth	1.00
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	9200
Antimony	DETSC 2301*	1	mg/kg	2.9
Arsenic	DETSC 2301#	0.2	mg/kg	34
Barium	DETSC 2301#	1.5	mg/kg	130
Beryllium	DETSC 2301#	0.2	mg/kg	1.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	69
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	56
Iron	DETSC 2301	25	mg/kg	60000
Lead	DETSC 2301#	0.3	mg/kg	100
Magnesium	DETSC 2301*	1	mg/kg	4400
Manganese	DETSC 2301#	20	mg/kg	2200
Mercury	DETSC 2325#	0.05	mg/kg	0.18
Molybdenum	DETSC 2301#	0.4	mg/kg	1.7
Nickel	DETSC 2301#	1	mg/kg	38
Silicon	DETSC 2301*	10	mg/kg	93000
Vanadium	DETSC 2301#	0.8	mg/kg	170
Zinc	DETSC 2301#	1	mg/kg	280
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	3.0
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	5.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	100
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667235
Sample ID	PRAIRIE_AUK_TP130_SO_0100
Depth	1.00
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.16
Fluorene	DETSC 3303	0.03	mg/kg	0.04
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.18
Anthracene	DETSC 3303	0.03	mg/kg	0.04
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.24
Pyrene	DETSC 3303#	0.03	mg/kg	0.20
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.11
Chrysene	DETSC 3303	0.03	mg/kg	0.13
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.05
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.05



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667235
Sample ID	PRAIRIE_AUK_TP130_SO_0100
Depth	1.00
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667235
Sample ID	PRAIRIE_AUK_TP130_SO_0100
Depth	1.00
Other ID	4A
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667236
Sample ID	PRAIRIE_AUK_TP147_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	19000
Antimony	DETSC 2301*	1	mg/kg	3.6
Arsenic	DETSC 2301#	0.2	mg/kg	14
Barium	DETSC 2301#	1.5	mg/kg	390
Beryllium	DETSC 2301#	0.2	mg/kg	1.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	99
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	58
Iron	DETSC 2301	25	mg/kg	56000
Lead	DETSC 2301#	0.3	mg/kg	220
Magnesium	DETSC 2301*	1	mg/kg	14000
Manganese	DETSC 2301#	20	mg/kg	4100
Mercury	DETSC 2325#	0.05	mg/kg	0.83
Molybdenum	DETSC 2301#	0.4	mg/kg	1.8
Nickel	DETSC 2301#	1	mg/kg	20
Silicon	DETSC 2301*	10	mg/kg	87000
Vanadium	DETSC 2301#	0.8	mg/kg	190
Zinc	DETSC 2301#	1	mg/kg	340
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	29
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	2.5
Organic matter	DETSC 2002#	0.1	%	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	480
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667236
Sample ID	PRAIRIE_AUK_TP147_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.3
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	4.8
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	23
Aromatic C5-C35	DETSC 3072*	10	mg/kg	29
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	29
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09
Fluorene	DETSC 3303	0.03	mg/kg	0.05
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.73
Anthracene	DETSC 3303	0.03	mg/kg	0.77
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.0
Pyrene	DETSC 3303#	0.03	mg/kg	2.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.1
Chrysene	DETSC 3303	0.03	mg/kg	1.1
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.4
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.61
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.88
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.55



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

 $08118, 20\hbox{-}08189, 20\hbox{-}08381, 20\hbox{-}09141, 20\hbox{-}$ 

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667236
Sample ID	PRAIRIE_AUK_TP147_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.65
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667236
Sample ID	PRAIRIE_AUK_TP147_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667237
Sample ID	PRAIRIE_AUK_TP158_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	10000
Antimony	DETSC 2301*	1	mg/kg	1.8
Arsenic	DETSC 2301#	0.2	mg/kg	9.1
Barium	DETSC 2301#	1.5	mg/kg	390
Beryllium	DETSC 2301#	0.2	mg/kg	1.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	7.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	24
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	94
Iron	DETSC 2301	25	mg/kg	32000
Lead	DETSC 2301#	0.3	mg/kg	130
Magnesium	DETSC 2301*	1	mg/kg	7700
Manganese	DETSC 2301#	20	mg/kg	1000
Mercury	DETSC 2325#	0.05	mg/kg	0.56
Molybdenum	DETSC 2301#	0.4	mg/kg	1.2
Nickel	DETSC 2301#	1	mg/kg	13
Silicon	DETSC 2301*	10	mg/kg	95000
Vanadium	DETSC 2301#	0.8	mg/kg	37
Zinc	DETSC 2301#	1	mg/kg	710
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	57
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.2
Thiocyanate	DETSC 2130#	0.6	mg/kg	3.3
Organic matter	DETSC 2002#	0.1	%	2.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	620
Sulphur (free)	DETSC 3049#	0.75	mg/kg	14
	_			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667237
Sample ID	PRAIRIE_AUK_TP158_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1.3
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	7.2
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.47
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.55
Fluorene	DETSC 3303	0.03	mg/kg	0.11
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44
Anthracene	DETSC 3303	0.03	mg/kg	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.2
Pyrene	DETSC 3303#	0.03	mg/kg	1.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.55
Chrysene	DETSC 3303	0.03	mg/kg	0.57
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.66
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.31
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.39
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.28



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667237
Sample ID	PRAIRIE_AUK_TP158_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.34
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667237
Sample ID	PRAIRIE_AUK_TP158_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667238
Sample ID	PRAIRIE_AUK_TP157_SO_0080
Depth	0.80
Other ID	2
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	9600
Antimony	DETSC 2301*	1	mg/kg	4.3
Arsenic	DETSC 2301#	0.2	mg/kg	10
Barium	DETSC 2301#	1.5	mg/kg	200
Beryllium	DETSC 2301#	0.2	mg/kg	1.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	200
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	40
Iron	DETSC 2301	25	mg/kg	61000
Lead	DETSC 2301#	0.3	mg/kg	140
Magnesium	DETSC 2301*	1	mg/kg	14000
Manganese	DETSC 2301#	20	mg/kg	12000
Mercury	DETSC 2325#	0.05	mg/kg	2.2
Molybdenum	DETSC 2301#	0.4	mg/kg	2.6
Nickel	DETSC 2301#	1	mg/kg	11
Silicon	DETSC 2301*	10	mg/kg	70000
Vanadium	DETSC 2301#	0.8	mg/kg	410
Zinc	DETSC 2301#	1	mg/kg	470
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	12.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	25
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.5
Organic matter	DETSC 2002#	0.1	%	2.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	65
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667238
Sample ID	PRAIRIE_AUK_TP157_SO_0080
Depth	0.80
Other ID	2
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	0.6
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	6.3
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	22
Aromatic C5-C35	DETSC 3072*	10	mg/kg	29
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	29
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.16
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.27
Fluorene	DETSC 3303	0.03	mg/kg	0.05
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.49
Anthracene	DETSC 3303	0.03	mg/kg	0.04
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.72
Pyrene	DETSC 3303#	0.03	mg/kg	0.63
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.54
Chrysene	DETSC 3303	0.03	mg/kg	0.72
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.64
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.26
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.29
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.14



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667238
Sample ID	PRAIRIE_AUK_TP157_SO_0080
Depth	
Other ID	2
Sample Type	ES
<b>Sampling Date</b>	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.15
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	5.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667238
Sample ID	PRAIRIE_AUK_TP157_SO_0080
Depth	0.80
Other ID	2
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667501
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	21000
Antimony	DETSC 2301*	1	mg/kg	4.0
Arsenic	DETSC 2301#	0.2	mg/kg	12
Barium	DETSC 2301#	1.5	mg/kg	330
Beryllium	DETSC 2301#	0.2	mg/kg	3.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	4.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	190
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	56
Iron	DETSC 2301	25	mg/kg	58000
Lead	DETSC 2301#	0.3	mg/kg	89
Magnesium	DETSC 2301*	1	mg/kg	18000
Manganese	DETSC 2301#	20	mg/kg	8200
Mercury	DETSC 2325#	0.05	mg/kg	0.19
Molybdenum	DETSC 2301#	0.4	mg/kg	5.8
Nickel	DETSC 2301#	1	mg/kg	19
Silicon	DETSC 2301*	10	mg/kg	72000
Vanadium	DETSC 2301#	0.8	mg/kg	360
Zinc	DETSC 2301#	1	mg/kg	190
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	2.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	250
Sulphur (free)	DETSC 3049#	0.75	mg/kg	33



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667501
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

		- Cap.	sc	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	3.4
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	27
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	270
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	300
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	6.8
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	100
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	510
Aromatic C5-C35	DETSC 3072*	10	mg/kg	610
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	910
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.04
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.13
Fluorene	DETSC 3303	0.03	mg/kg	0.05
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.4
Anthracene	DETSC 3303	0.03	mg/kg	0.39
Fluoranthene	DETSC 3303#	0.03	mg/kg	8.2
Pyrene	DETSC 3303#	0.03	mg/kg	12
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	6.6
Chrysene	DETSC 3303	0.03	mg/kg	4.8
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	7.3
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	2.9
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	5.8
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667501
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.53
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	2.4
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	54



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667501
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667502
Sample ID	PRAIRIE_AUK_TP134_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	8700
Antimony	DETSC 2301*	1	mg/kg	18
Arsenic	DETSC 2301#	0.2	mg/kg	61
Barium	DETSC 2301#	1.5	mg/kg	200
Beryllium	DETSC 2301#	0.2	mg/kg	0.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	240
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	100
Iron	DETSC 2301	25	mg/kg	140000
Lead	DETSC 2301#	0.3	mg/kg	160
Magnesium	DETSC 2301*	1	mg/kg	15000
Manganese	DETSC 2301#	20	mg/kg	26000
Mercury	DETSC 2325#	0.05	mg/kg	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	4.6
Nickel	DETSC 2301#	1	mg/kg	29
Silicon	DETSC 2301*	10	mg/kg	59000
Vanadium	DETSC 2301#	0.8	mg/kg	680
Zinc	DETSC 2301#	1	mg/kg	180
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	130
Sulphur (free)	DETSC 3049#	0.75	mg/kg	6.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667502
Sample ID	PRAIRIE_AUK_TP134_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	15
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	69
Aromatic C5-C35	DETSC 3072*	10	mg/kg	86
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	86
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.09
Fluorene	DETSC 3303	0.03	mg/kg	0.12
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.93
Anthracene	DETSC 3303	0.03	mg/kg	0.48
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.5
Pyrene	DETSC 3303#	0.03	mg/kg	1.2
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.62
Chrysene	DETSC 3303	0.03	mg/kg	0.47
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.66
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.29
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.52
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.21



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667502
Sample ID	PRAIRIE_AUK_TP134_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.25
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667502
Sample ID	PRAIRIE_AUK_TP134_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667503
Sample ID	PRAIRIE_AUK_TP134_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	13000
Antimony	DETSC 2301*	1	mg/kg	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	9.0
Barium	DETSC 2301#	1.5	mg/kg	300
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	29
Iron	DETSC 2301	25	mg/kg	43000
Lead	DETSC 2301#	0.3	mg/kg	30
Magnesium	DETSC 2301*	1	mg/kg	7300
Manganese	DETSC 2301#	20	mg/kg	850
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.5
Nickel	DETSC 2301#	1	mg/kg	38
Silicon	DETSC 2301*	10	mg/kg	170000
Vanadium	DETSC 2301#	0.8	mg/kg	36
Zinc	DETSC 2301#	1	mg/kg	99
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	78
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1667503
Sample ID	PRAIRIE_AUK_TP134_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667503
Sample ID	PRAIRIE_AUK_TP134_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667503
Sample ID	PRAIRIE_AUK_TP134_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667504
Sample ID	PRAIRIE_AUK_TP161_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	5.5
Arsenic	DETSC 2301#	0.2	mg/kg	8.1
Barium	DETSC 2301#	1.5	mg/kg	260
Beryllium	DETSC 2301#	0.2	mg/kg	1.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	150
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	150
Iron	DETSC 2301	25	mg/kg	53000
Lead	DETSC 2301#	0.3	mg/kg	59
Magnesium	DETSC 2301*	1	mg/kg	11000
Manganese	DETSC 2301#	20	mg/kg	3400
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	1.8
Nickel	DETSC 2301#	1	mg/kg	15
Silicon	DETSC 2301*	10	mg/kg	80000
Vanadium	DETSC 2301#	0.8	mg/kg	160
Zinc	DETSC 2301#	1	mg/kg	110
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	100
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667504
Sample ID	PRAIRIE_AUK_TP161_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	30
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	31
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	4.4
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	29
Aromatic C5-C35	DETSC 3072*	10	mg/kg	33
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	64
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.15
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.32
Pyrene	DETSC 3303#	0.03	mg/kg	0.33
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.19
Chrysene	DETSC 3303	0.03	mg/kg	0.19
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.11
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.13
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

1667504
PRAIRIE_AUK_TP161_SO_0100
1.00
3
ES
20/04/2020
n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667504
Sample ID	PRAIRIE_AUK_TP161_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667505
Sample ID	PRAIRIE_AUK_TP166_SO_0045
Depth	0.45
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	28000
Antimony	DETSC 2301*	1	mg/kg	5.1
Arsenic	DETSC 2301#	0.2	mg/kg	22
Barium	DETSC 2301#	1.5	mg/kg	700
Beryllium	DETSC 2301#	0.2	mg/kg	3.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.9
Chromium	DETSC 2301#	0.15	mg/kg	140
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	160
Iron	DETSC 2301	25	mg/kg	91000
Lead	DETSC 2301#	0.3	mg/kg	190
Magnesium	DETSC 2301*	1	mg/kg	21000
Manganese	DETSC 2301#	20	mg/kg	6600
Mercury	DETSC 2325#	0.05	mg/kg	0.28
Molybdenum	DETSC 2301#	0.4	mg/kg	5.7
Nickel	DETSC 2301#	1	mg/kg	53
Silicon	DETSC 2301*	10	mg/kg	59000
Vanadium	DETSC 2301#	0.8	mg/kg	340
Zinc	DETSC 2301#	1	mg/kg	210
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	260
Sulphur (free)	DETSC 3049#	0.75	mg/kg	3.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667505
Sample ID	PRAIRIE_AUK_TP166_SO_0045
Depth	0.45
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s
LOD Units	

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	9.9
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	11
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	0.7
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	19
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	65
Aromatic C5-C35	DETSC 3072*	10	mg/kg	84
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	95
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.25
Anthracene	DETSC 3303	0.03	mg/kg	0.08
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.2
Pyrene	DETSC 3303#	0.03	mg/kg	1.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.67
Chrysene	DETSC 3303	0.03	mg/kg	0.60
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.89
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.37
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.71
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.29



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667505
Sample ID	PRAIRIE_AUK_TP166_SO_0045
Depth	0.45
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.38
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	6.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667505
Sample ID	PRAIRIE_AUK_TP166_SO_0045
Depth	0.45
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667506
Sample ID	PRAIRIE_AUK_TP166_SO_0120
Depth	1.20
Other ID	8
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	10000
Antimony	DETSC 2301*	1	mg/kg	1.2
Arsenic	DETSC 2301#	0.2	mg/kg	7.6
Barium	DETSC 2301#	1.5	mg/kg	200
Beryllium	DETSC 2301#	0.2	mg/kg	1.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	23
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	26
Iron	DETSC 2301	25	mg/kg	33000
Lead	DETSC 2301#	0.3	mg/kg	23
Magnesium	DETSC 2301*	1	mg/kg	3500
Manganese	DETSC 2301#	20	mg/kg	840
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	40
Silicon	DETSC 2301*	10	mg/kg	180000
Vanadium	DETSC 2301#	0.8	mg/kg	28
Zinc	DETSC 2301#	1	mg/kg	66
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	84
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667506
Sample ID	PRAIRIE_AUK_TP166_SO_0120
Depth	1.20
Other ID	8
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667506
Sample ID	PRAIRIE_AUK_TP166_SO_0120
Depth	1.20
Other ID	8
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667506
Sample ID	PRAIRIE_AUK_TP166_SO_0120
Depth	1.20
Other ID	8
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667507
Sample ID	PRAIRIE_AUK_TP171_SO_0075
Depth	0.75
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	18000
Antimony	DETSC 2301*	1	mg/kg	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	30
Barium	DETSC 2301#	1.5	mg/kg	610
Beryllium	DETSC 2301#	0.2	mg/kg	3.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	3.6
Chromium	DETSC 2301#	0.15	mg/kg	27
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	110
Iron	DETSC 2301	25	mg/kg	63000
Lead	DETSC 2301#	0.3	mg/kg	310
Magnesium	DETSC 2301*	1	mg/kg	5700
Manganese	DETSC 2301#	20	mg/kg	1600
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	4.2
Nickel	DETSC 2301#	1	mg/kg	46
Silicon	DETSC 2301*	10	mg/kg	90000
Vanadium	DETSC 2301#	0.8	mg/kg	120
Zinc	DETSC 2301#	1	mg/kg	1500
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	5.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667507
Sample ID	PRAIRIE_AUK_TP171_SO_0075
Depth	0.75
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.09
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.20
Pyrene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.11
Chrysene	DETSC 3303	0.03	mg/kg	0.12
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.06



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667507
Sample ID	PRAIRIE_AUK_TP171_SO_0075
Depth	0.75
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.07
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667507
Sample ID	PRAIRIE_AUK_TP171_SO_0075
Depth	0.75
Other ID	3
Sample Type	ES
Sampling Date	
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667508
Sample ID	PRAIRIE_AUK_TP187_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	14000
Antimony	DETSC 2301*	1	mg/kg	22
Arsenic	DETSC 2301#	0.2	mg/kg	46
Barium	DETSC 2301#	1.5	mg/kg	340
Beryllium	DETSC 2301#	0.2	mg/kg	3.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.1
Cadmium	DETSC 2301#	0.1	mg/kg	24
Chromium	DETSC 2301#	0.15	mg/kg	19
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	530
Iron	DETSC 2301	25	mg/kg	110000
Lead	DETSC 2301#	0.3	mg/kg	1800
Magnesium	DETSC 2301*	1	mg/kg	5200
Manganese	DETSC 2301#	20	mg/kg	4200
Mercury	DETSC 2325#	0.05	mg/kg	0.13
Molybdenum	DETSC 2301#	0.4	mg/kg	6.4
Nickel	DETSC 2301#	1	mg/kg	55
Silicon	DETSC 2301*	10	mg/kg	96000
Vanadium	DETSC 2301#	0.8	mg/kg	81
Zinc	DETSC 2301#	1	mg/kg	3800
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	11
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	14
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	74
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1667508
Sample ID	PRAIRIE_AUK_TP187_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons			1	
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.06
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.29
Pyrene	DETSC 3303#	0.03	mg/kg	0.28
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.15
Chrysene	DETSC 3303	0.03	mg/kg	0.16
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.24
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.10
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.18
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.09



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667508
Sample ID	PRAIRIE_AUK_TP187_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.11
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667508
Sample ID	PRAIRIE_AUK_TP187_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
<b>Sampling Date</b>	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668118
Sample ID	PRAIRIE_AUK_BH110_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	1.4
Arsenic	DETSC 2301#	0.2	mg/kg	7.5
Barium	DETSC 2301#	1.5	mg/kg	210
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	28
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	27
Iron	DETSC 2301	25	mg/kg	31000
Lead	DETSC 2301#	0.3	mg/kg	24
Magnesium	DETSC 2301*	1	mg/kg	9400
Manganese	DETSC 2301#	20	mg/kg	570
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7
Nickel	DETSC 2301#	1	mg/kg	37
Silicon	DETSC 2301*	10	mg/kg	170000
Vanadium	DETSC 2301#	0.8	mg/kg	31
Zinc	DETSC 2301#	1	mg/kg	91
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	350
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668118
Sample ID	PRAIRIE_AUK_BH110_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	0.05
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668118
Sample ID	PRAIRIE_AUK_BH110_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.11



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668118
Sample ID	PRAIRIE_AUK_BH110_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668119
Sample ID	PRAIRIE_AUK_TP102_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	49000
Antimony	DETSC 2301*	1	mg/kg	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	460
Beryllium	DETSC 2301#	0.2	mg/kg	8.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	30
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	22
Iron	DETSC 2301	25	mg/kg	19000
Lead	DETSC 2301#	0.3	mg/kg	20
Magnesium	DETSC 2301*	1	mg/kg	28000
Manganese	DETSC 2301#	20	mg/kg	6700
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	7.2
Silicon	DETSC 2301*	10	mg/kg	72000
Vanadium	DETSC 2301#	0.8	mg/kg	100
Zinc	DETSC 2301#	1	mg/kg	84
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	580
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668119
Sample ID	PRAIRIE_AUK_TP102_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.06
Pyrene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Chrysene	DETSC 3303	0.03	mg/kg	0.05
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.07
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.04



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668119
Sample ID	PRAIRIE_AUK_TP102_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.36



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668119
Sample ID	PRAIRIE_AUK_TP102_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668120
Sample ID	PRAIRIE_AUK_TP102_SO_0300
Depth	3.00
Other ID	11
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	19000
Antimony	DETSC 2301*	1	mg/kg	1.8
Arsenic	DETSC 2301#	0.2	mg/kg	21
Barium	DETSC 2301#	1.5	mg/kg	630
Beryllium	DETSC 2301#	0.2	mg/kg	2.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	29
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	36
Iron	DETSC 2301	25	mg/kg	36000
Lead	DETSC 2301#	0.3	mg/kg	98
Magnesium	DETSC 2301*	1	mg/kg	7400
Manganese	DETSC 2301#	20	mg/kg	1100
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7
Nickel	DETSC 2301#	1	mg/kg	25
Silicon	DETSC 2301*	10	mg/kg	160000
Vanadium	DETSC 2301#	0.8	mg/kg	65
Zinc	DETSC 2301#	1	mg/kg	300
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	3.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	220
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668120
Sample ID	PRAIRIE_AUK_TP102_SO_0300
Depth	3.00
Other ID	11
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

		- Juli		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	11
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	29
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	33
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	29
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	100
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	1.8
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	13
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	16
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	5.9
Aromatic C5-C35	DETSC 3072*	10	mg/kg	36
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	140
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.11
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.16
Pyrene	DETSC 3303#	0.03	mg/kg	0.13
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Chrysene	DETSC 3303	0.03	mg/kg	0.05
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668120
Sample ID	PRAIRIE_AUK_TP102_SO_0300
Depth	3.00
Other ID	11
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.49



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668120
Sample ID	PRAIRIE_AUK_TP102_SO_0300
Depth	3.00
Other ID	11
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668121
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	45000
Antimony	DETSC 2301*	1	mg/kg	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	8.1
Barium	DETSC 2301#	1.5	mg/kg	440
Beryllium	DETSC 2301#	0.2	mg/kg	5.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.4
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	82
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	17
Iron	DETSC 2301	25	mg/kg	26000
Lead	DETSC 2301#	0.3	mg/kg	14
Magnesium	DETSC 2301*	1	mg/kg	25000
Manganese	DETSC 2301#	20	mg/kg	6200
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	11
Silicon	DETSC 2301*	10	mg/kg	68000
Vanadium	DETSC 2301#	0.8	mg/kg	110
Zinc	DETSC 2301#	1	mg/kg	43
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	3.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	680
Sulphur (free)	DETSC 3049#	0.75	mg/kg	110



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668121
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	3.1
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	13
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	14
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	17
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	47
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	8.2
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	30
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	97
Aromatic C5-C35	DETSC 3072*	10	mg/kg	140
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	180
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.10
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.12
Fluorene	DETSC 3303	0.03	mg/kg	0.13
Phenanthrene	DETSC 3303#	0.03	mg/kg	2.6
Anthracene	DETSC 3303	0.03	mg/kg	0.81
Fluoranthene	DETSC 3303#	0.03	mg/kg	36
Pyrene	DETSC 3303#	0.03	mg/kg	29
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	15
Chrysene	DETSC 3303	0.03	mg/kg	11
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	14
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	7.1
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	11
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	4.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668121
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	1.2
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	5.0
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	140



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668121
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668122
Sample ID	PRAIRIE_AUK_TP109_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	33000
Antimony	DETSC 2301*	1	mg/kg	2.1
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	350
Beryllium	DETSC 2301#	0.2	mg/kg	4.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	6.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	110
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	71
Iron	DETSC 2301	25	mg/kg	35000
Lead	DETSC 2301#	0.3	mg/kg	33
Magnesium	DETSC 2301*	1	mg/kg	21000
Manganese	DETSC 2301#	20	mg/kg	8200
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.7
Nickel	DETSC 2301#	1	mg/kg	9.3
Silicon	DETSC 2301*	10	mg/kg	72000
Vanadium	DETSC 2301#	0.8	mg/kg	300
Zinc	DETSC 2301#	1	mg/kg	68
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	400
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668122
Sample ID	PRAIRIE_AUK_TP109_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

		Jup.	ا ۲۰۰۰۰ و۰۰۰	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons	<u></u>			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.14
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.29
Pyrene	DETSC 3303#	0.03	mg/kg	0.25
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.17
Chrysene	DETSC 3303	0.03	mg/kg	0.15
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.23
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.11
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.08



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668122
Sample ID	PRAIRIE_AUK_TP109_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.10
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668122
Sample ID	PRAIRIE_AUK_TP109_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	31000
Antimony	DETSC 2301*	1	mg/kg	1.8
Arsenic	DETSC 2301#	0.2	mg/kg	6.8
Barium	DETSC 2301#	1.5	mg/kg	490
Beryllium	DETSC 2301#	0.2	mg/kg	3.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	72
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	110
Iron	DETSC 2301	25	mg/kg	31000
Lead	DETSC 2301#	0.3	mg/kg	31
Magnesium	DETSC 2301*	1	mg/kg	24000
Manganese	DETSC 2301#	20	mg/kg	5100
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	1.2
Nickel	DETSC 2301#	1	mg/kg	9.8
Silicon	DETSC 2301*	10	mg/kg	68000
Vanadium	DETSC 2301#	0.8	mg/kg	180
Zinc	DETSC 2301#	1	mg/kg	140
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	260
Sulphur (free)	DETSC 3049#	0.75	mg/kg	57



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

				11/3	
Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	2.2	
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	4.4	
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	35	
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	43	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.5	
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	8.8	
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	73	
Aromatic C5-C35	DETSC 3072*	10	mg/kg	84	
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	130	
EPH (C10-C40)	DETSC 3311#	10	mg/kg		
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	0.07	
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.06	
Acenaphthene	DETSC 3303#	0.03	mg/kg	1.4	
Fluorene	DETSC 3303	0.03	mg/kg	0.78	
Phenanthrene	DETSC 3303#	0.03	mg/kg	3.2	
Anthracene	DETSC 3303	0.03	mg/kg	3.1	
Fluoranthene	DETSC 3303#	0.03	mg/kg	36	
Pyrene	DETSC 3303#	0.03	mg/kg	37	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	20	
Chrysene	DETSC 3303	0.03	mg/kg	12	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	18	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	5.6	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	9.4	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	3.1	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s
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Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	1.1
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	3.2
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	150



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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	0.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668124
Sample ID	PRAIRIE_AUK_TP110_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	18000
Antimony	DETSC 2301*	1	mg/kg	2.9
Arsenic	DETSC 2301#	0.2	mg/kg	21
Barium	DETSC 2301#	1.5	mg/kg	380
Beryllium	DETSC 2301#	0.2	mg/kg	1.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	78
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	60
Iron	DETSC 2301	25	mg/kg	60000
Lead	DETSC 2301#	0.3	mg/kg	94
Magnesium	DETSC 2301*	1	mg/kg	9500
Manganese	DETSC 2301#	20	mg/kg	1900
Mercury	DETSC 2325#	0.05	mg/kg	0.23
Molybdenum	DETSC 2301#	0.4	mg/kg	1.8
Nickel	DETSC 2301#	1	mg/kg	40
Silicon	DETSC 2301*	10	mg/kg	16000
Vanadium	DETSC 2301#	0.8	mg/kg	210
Zinc	DETSC 2301#	1	mg/kg	260
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	230
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668124
Sample ID	PRAIRIE_AUK_TP110_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.12
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.52
Pyrene	DETSC 3303#	0.03	mg/kg	0.41
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.22
Chrysene	DETSC 3303	0.03	mg/kg	0.15
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.09
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.06



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-

07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668124
Sample ID	PRAIRIE_AUK_TP110_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.06
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668124
Sample ID	PRAIRIE_AUK_TP110_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668125
Sample ID	PRAIRIE_AUK_TP111_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.002
Metals				
Aluminium	DETSC 2301*	1	mg/kg	18000
Antimony	DETSC 2301*	1	mg/kg	8.9
Arsenic	DETSC 2301#	0.2	mg/kg	48
Barium	DETSC 2301#	1.5	mg/kg	600
Beryllium	DETSC 2301#	0.2	mg/kg	1.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.4
Cadmium	DETSC 2301#	0.1	mg/kg	0.9
Chromium	DETSC 2301#	0.15	mg/kg	390
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	76
Iron	DETSC 2301	25	mg/kg	99000
Lead	DETSC 2301#	0.3	mg/kg	120
Magnesium	DETSC 2301*	1	mg/kg	29000
Manganese	DETSC 2301#	20	mg/kg	9100
Mercury	DETSC 2325#	0.05	mg/kg	0.36
Molybdenum	DETSC 2301#	0.4	mg/kg	3.1
Nickel	DETSC 2301#	1	mg/kg	32
Silicon	DETSC 2301*	10	mg/kg	67000
Vanadium	DETSC 2301#	0.8	mg/kg	1100
Zinc	DETSC 2301#	1	mg/kg	290
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	87
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668125
Sample ID	PRAIRIE_AUK_TP111_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	0.8
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	5.2
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	18
Aromatic C5-C35	DETSC 3072*	10	mg/kg	24
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	24
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.15
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.31
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.13
Fluorene	DETSC 3303	0.03	mg/kg	0.49
Phenanthrene	DETSC 3303#	0.03	mg/kg	3.9
Anthracene	DETSC 3303	0.03	mg/kg	1.3
Fluoranthene	DETSC 3303#	0.03	mg/kg	8.6
Pyrene	DETSC 3303#	0.03	mg/kg	6.9
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	4.2
Chrysene	DETSC 3303	0.03	mg/kg	2.6
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	3.6
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.7
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	2.7
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668125
Sample ID	PRAIRIE_AUK_TP111_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.25
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.2
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	39



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668125
Sample ID	PRAIRIE_AUK_TP111_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668126
Sample ID	PRAIRIE_AUK_TP112_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	14000
Antimony	DETSC 2301*	1	mg/kg	4.5
Arsenic	DETSC 2301#	0.2	mg/kg	19
Barium	DETSC 2301#	1.5	mg/kg	540
Beryllium	DETSC 2301#	0.2	mg/kg	1.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.9
Chromium	DETSC 2301#	0.15	mg/kg	210
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	68
Iron	DETSC 2301	25	mg/kg	65000
Lead	DETSC 2301#	0.3	mg/kg	60
Magnesium	DETSC 2301*	1	mg/kg	12000
Manganese	DETSC 2301#	20	mg/kg	4900
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	5.4
Nickel	DETSC 2301#	1	mg/kg	31
Silicon	DETSC 2301*	10	mg/kg	79000
Vanadium	DETSC 2301#	0.8	mg/kg	690
Zinc	DETSC 2301#	1	mg/kg	580
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	140
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75
<u> </u>				



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668126
Sample ID	PRAIRIE_AUK_TP112_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

				11/3	
Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5	
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2	
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5	
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4	
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10	
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01	
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9	
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	0.6	
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	4.6	
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	11	
Aromatic C5-C35	DETSC 3072*	10	mg/kg	16	
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	16	
EPH (C10-C40)	DETSC 3311#	10	mg/kg		
PAHs					
Naphthalene	DETSC 3303#	0.03	mg/kg	0.07	
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.10	
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03	
Fluorene	DETSC 3303	0.03	mg/kg	0.09	
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.7	
Anthracene	DETSC 3303	0.03	mg/kg	0.35	
Fluoranthene	DETSC 3303#	0.03	mg/kg	3.5	
Pyrene	DETSC 3303#	0.03	mg/kg	2.6	
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.3	
Chrysene	DETSC 3303	0.03	mg/kg	0.99	
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	1.4	
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.61	
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.86	
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.43	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668126
Sample ID	PRAIRIE_AUK_TP112_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s
	<u>-</u>

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.11
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.51
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	14



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668126
Sample ID	PRAIRIE_AUK_TP112_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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	< 0.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668127
Sample ID	PRAIRIE_AUK_TP119_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	37000
Antimony	DETSC 2301*	1	mg/kg	2.5
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	380
Beryllium	DETSC 2301#	0.2	mg/kg	4.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	140
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	35
Iron	DETSC 2301	25	mg/kg	38000
Lead	DETSC 2301#	0.3	mg/kg	29
Magnesium	DETSC 2301*	1	mg/kg	26000
Manganese	DETSC 2301#	20	mg/kg	6400
Mercury	DETSC 2325#	0.05	mg/kg	0.08
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8
Nickel	DETSC 2301#	1	mg/kg	11
Silicon	DETSC 2301*	10	mg/kg	58000
Vanadium	DETSC 2301#	0.8	mg/kg	430
Zinc	DETSC 2301#	1	mg/kg	82
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	4.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1100
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75
	•			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Mothod

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Test

Lab No	1668127
Sample ID	PRAIRIE_AUK_TP119_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.7
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	25
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	98
Aromatic C5-C35	DETSC 3072*	10	mg/kg	130
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	130
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.13
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.15
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.30
Fluorene	DETSC 3303	0.03	mg/kg	0.23
Phenanthrene	DETSC 3303#	0.03	mg/kg	5.4
Anthracene	DETSC 3303	0.03	mg/kg	1.2
Fluoranthene	DETSC 3303#	0.03	mg/kg	30
Pyrene	DETSC 3303#	0.03	mg/kg	30
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	18
Chrysene	DETSC 3303	0.03	mg/kg	16
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	21
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	9.1
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	15
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	5.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668127
Sample ID	PRAIRIE_AUK_TP119_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s
LOD Unite	

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	1.7
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	6.6
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	160



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668127
Sample ID	PRAIRIE_AUK_TP119_SO_0150
Depth	1.50
Other ID	3
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668128
Sample ID	PRAIRIE_AUK_TP119_SO_0250
Depth	2.50
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	14000
Antimony	DETSC 2301*	1	mg/kg	1.5
Arsenic	DETSC 2301#	0.2	mg/kg	8.5
Barium	DETSC 2301#	1.5	mg/kg	180
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.5
Cadmium	DETSC 2301#	0.1	mg/kg	0.2
Chromium	DETSC 2301#	0.15	mg/kg	33
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	31
Iron	DETSC 2301	25	mg/kg	38000
Lead	DETSC 2301#	0.3	mg/kg	28
Magnesium	DETSC 2301*	1	mg/kg	7300
Manganese	DETSC 2301#	20	mg/kg	660
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.4
Nickel	DETSC 2301#	1	mg/kg	39
Silicon	DETSC 2301*	10	mg/kg	160000
Vanadium	DETSC 2301#	0.8	mg/kg	40
Zinc	DETSC 2301#	1	mg/kg	96
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	72
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668128
Sample ID	PRAIRIE_AUK_TP119_SO_0250
Depth	2.50
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.05
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.17
Pyrene	DETSC 3303#	0.03	mg/kg	0.14
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.09
Chrysene	DETSC 3303	0.03	mg/kg	0.07
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.12
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.06
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.05



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668128
Sample ID	PRAIRIE_AUK_TP119_SO_0250
Depth	2.50
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.06
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.85



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668128
Sample ID	PRAIRIE_AUK_TP119_SO_0250
Depth	2.50
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668129
Sample ID	PRAIRIE_AUK_TP133_SO_0050
Depth	0.50
Other ID	2
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	21000
Antimony	DETSC 2301*	1	mg/kg	6.5
Arsenic	DETSC 2301#	0.2	mg/kg	35
Barium	DETSC 2301#	1.5	mg/kg	390
Beryllium	DETSC 2301#	0.2	mg/kg	2.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	150
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	330
Iron	DETSC 2301	25	mg/kg	120000
Lead	DETSC 2301#	0.3	mg/kg	110
Magnesium	DETSC 2301*	1	mg/kg	15000
Manganese	DETSC 2301#	20	mg/kg	4800
Mercury	DETSC 2325#	0.05	mg/kg	0.12
Molybdenum	DETSC 2301#	0.4	mg/kg	3.2
Nickel	DETSC 2301#	1	mg/kg	56
Silicon	DETSC 2301*	10	mg/kg	94000
Vanadium	DETSC 2301#	0.8	mg/kg	350
Zinc	DETSC 2301#	1	mg/kg	380
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	8.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668129
Sample ID	PRAIRIE_AUK_TP133_SO_0050
Depth	0.50
Other ID	2
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	0.04
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.79
Anthracene	DETSC 3303	0.03	mg/kg	0.11
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.6
Pyrene	DETSC 3303#	0.03	mg/kg	1.3
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.66
Chrysene	DETSC 3303	0.03	mg/kg	0.62
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.79
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.32
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.54
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.26



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668129
Sample ID	PRAIRIE_AUK_TP133_SO_0050
Depth	0.50
Other ID	2
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.07
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.33
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668129
Sample ID	PRAIRIE_AUK_TP133_SO_0050
Depth	0.50
Other ID	2
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668130
Sample ID	PRAIRIE_AUK_TP152_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.002
Metals				
Aluminium	DETSC 2301*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	5.0
Arsenic	DETSC 2301#	0.2	mg/kg	19
Barium	DETSC 2301#	1.5	mg/kg	230
Beryllium	DETSC 2301#	0.2	mg/kg	1.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.8
Cadmium	DETSC 2301#	0.1	mg/kg	1.7
Chromium	DETSC 2301#	0.15	mg/kg	160
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	64
Iron	DETSC 2301	25	mg/kg	67000
Lead	DETSC 2301#	0.3	mg/kg	200
Magnesium	DETSC 2301*	1	mg/kg	18000
Manganese	DETSC 2301#	20	mg/kg	3300
Mercury	DETSC 2325#	0.05	mg/kg	0.30
Molybdenum	DETSC 2301#	0.4	mg/kg	1.9
Nickel	DETSC 2301#	1	mg/kg	34
Silicon	DETSC 2301*	10	mg/kg	120000
Vanadium	DETSC 2301#	0.8	mg/kg	320
Zinc	DETSC 2301#	1	mg/kg	360
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1700
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668130
Sample ID	PRAIRIE_AUK_TP152_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.2
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	8.1
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	17
Aromatic C5-C35	DETSC 3072*	10	mg/kg	26
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	26
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.19
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.08
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.11
Fluorene	DETSC 3303	0.03	mg/kg	0.10
Phenanthrene	DETSC 3303#	0.03	mg/kg	3.5
Anthracene	DETSC 3303	0.03	mg/kg	0.54
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.6
Pyrene	DETSC 3303#	0.03	mg/kg	4.9
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	2.6
Chrysene	DETSC 3303	0.03	mg/kg	1.9
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.4
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.94
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.2
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.72



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668130
Sample ID	PRAIRIE_AUK_TP152_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.20
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.83
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	25



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668130
Sample ID	PRAIRIE_AUK_TP152_SO_0200
Depth	2.00
Other ID	6
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668131
Sample ID	PRAIRIE_AUK_TP153_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	23000
Antimony	DETSC 2301*	1	mg/kg	4.4
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	330
Beryllium	DETSC 2301#	0.2	mg/kg	2.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	110
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	94
Iron	DETSC 2301	25	mg/kg	47000
Lead	DETSC 2301#	0.3	mg/kg	330
Magnesium	DETSC 2301*	1	mg/kg	17000
Manganese	DETSC 2301#	20	mg/kg	7300
Mercury	DETSC 2325#	0.05	mg/kg	0.10
Molybdenum	DETSC 2301#	0.4	mg/kg	2.1
Nickel	DETSC 2301#	1	mg/kg	15
Silicon	DETSC 2301*	10	mg/kg	85000
Vanadium	DETSC 2301#	0.8	mg/kg	240
Zinc	DETSC 2301#	1	mg/kg	85
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	4.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	400
Sulphur (free)	DETSC 3049#	0.75	mg/kg	8.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668131
Sample ID	PRAIRIE_AUK_TP153_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

		<b>J</b> a <b>p</b>	sc	11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.04
Fluorene	DETSC 3303	0.03	mg/kg	0.04
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.1
Anthracene	DETSC 3303	0.03	mg/kg	0.24
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.2
Pyrene	DETSC 3303#	0.03	mg/kg	4.0
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.7
Chrysene	DETSC 3303	0.03	mg/kg	1.4
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.3
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.94
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.9
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668131
Sample ID	PRAIRIE_AUK_TP153_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s
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Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.18
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.4
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	21



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668131
Sample ID	PRAIRIE_AUK_TP153_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668132
Sample ID	PRAIRIE_AUK_TP154_SO_0085
Depth	0.85
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	21000
Antimony	DETSC 2301*	1	mg/kg	4.1
Arsenic	DETSC 2301#	0.2	mg/kg	9.2
Barium	DETSC 2301#	1.5	mg/kg	270
Beryllium	DETSC 2301#	0.2	mg/kg	2.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.5
Chromium	DETSC 2301#	0.15	mg/kg	200
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	40
Iron	DETSC 2301	25	mg/kg	100000
Lead	DETSC 2301#	0.3	mg/kg	33
Magnesium	DETSC 2301*	1	mg/kg	17000
Manganese	DETSC 2301#	20	mg/kg	25000
Mercury	DETSC 2325#	0.05	mg/kg	0.07
Molybdenum	DETSC 2301#	0.4	mg/kg	2.3
Nickel	DETSC 2301#	1	mg/kg	16
Silicon	DETSC 2301*	10	mg/kg	68000
Vanadium	DETSC 2301#	0.8	mg/kg	1500
Zinc	DETSC 2301#	1	mg/kg	100
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.8
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	300
Sulphur (free)	DETSC 3049#	0.75	mg/kg	10
<u> </u>				



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668132
Sample ID	PRAIRIE_AUK_TP154_SO_0085
Depth	0.85
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wiethou	LOD	Oilits	1
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16		1.2		< 1.3
-	DETSC 3072#	1.5	mg/kg	
Aliphatic C16-C21	DETSC 3072#		mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.4
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	12
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	29
Aromatic C5-C35	DETSC 3072*	10	mg/kg	42
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	42
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	<u>.</u>			
Naphthalene	DETSC 3303#	0.03	mg/kg	0.04
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.37
Fluorene	DETSC 3303	0.03	mg/kg	0.29
Phenanthrene	DETSC 3303#	0.03	mg/kg	4.0
Anthracene	DETSC 3303	0.03	mg/kg	0.80
Fluoranthene	DETSC 3303#	0.03	mg/kg	9.7
Pyrene	DETSC 3303#	0.03	mg/kg	9.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	4.9
Chrysene	DETSC 3303	0.03	mg/kg	3.6
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	4.4
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.7
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	3.2
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668132
Sample ID	PRAIRIE_AUK_TP154_SO_0085
Depth	0.85
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.36
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.3
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	45



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668132
Sample ID	PRAIRIE_AUK_TP154_SO_0085
Depth	0.85
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668133
Sample ID	PRAIRIE_AUK_TP155_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	11000
Antimony	DETSC 2301*	1	mg/kg	2.3
Arsenic	DETSC 2301#	0.2	mg/kg	9.4
Barium	DETSC 2301#	1.5	mg/kg	220
Beryllium	DETSC 2301#	0.2	mg/kg	2.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	80
Iron	DETSC 2301	25	mg/kg	42000
Lead	DETSC 2301#	0.3	mg/kg	18
Magnesium	DETSC 2301*	1	mg/kg	6300
Manganese	DETSC 2301#	20	mg/kg	3000
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	3.8
Nickel	DETSC 2301#	1	mg/kg	40
Silicon	DETSC 2301*	10	mg/kg	100000
Vanadium	DETSC 2301#	0.8	mg/kg	480
Zinc	DETSC 2301#	1	mg/kg	37
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	86
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668133
Sample ID	PRAIRIE_AUK_TP155_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	•	•		
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.09
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.30
Pyrene	DETSC 3303#	0.03	mg/kg	0.24
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.14
Chrysene	DETSC 3303	0.03	mg/kg	0.12
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.18
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.07
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.09
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.07



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668133
Sample ID	PRAIRIE_AUK_TP155_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.07
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668133
Sample ID	PRAIRIE_AUK_TP155_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668134
Sample ID	PRAIRIE_AUK_TP160_SO_0075
Depth	0.75
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	3.7
Arsenic	DETSC 2301#	0.2	mg/kg	17
Barium	DETSC 2301#	1.5	mg/kg	270
Beryllium	DETSC 2301#	0.2	mg/kg	1.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	110
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	72
Iron	DETSC 2301	25	mg/kg	58000
Lead	DETSC 2301#	0.3	mg/kg	100
Magnesium	DETSC 2301*	1	mg/kg	8700
Manganese	DETSC 2301#	20	mg/kg	2800
Mercury	DETSC 2325#	0.05	mg/kg	0.22
Molybdenum	DETSC 2301#	0.4	mg/kg	2.8
Nickel	DETSC 2301#	1	mg/kg	29
Silicon	DETSC 2301*	10	mg/kg	83000
Vanadium	DETSC 2301#	0.8	mg/kg	210
Zinc	DETSC 2301#	1	mg/kg	220
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	4.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	290
Sulphur (free)	DETSC 3049#	0.75	mg/kg	7.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668134
Sample ID	PRAIRIE_AUK_TP160_SO_0075
Depth	0.75
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.44
Anthracene	DETSC 3303	0.03	mg/kg	0.04
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.81
Pyrene	DETSC 3303#	0.03	mg/kg	0.62
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.24
Chrysene	DETSC 3303	0.03	mg/kg	0.33
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.57
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.41
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.20
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668134
Sample ID	PRAIRIE_AUK_TP160_SO_0075
Depth	0.75
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.15
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	3.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668134
Sample ID	PRAIRIE_AUK_TP160_SO_0075
Depth	0.75
Other ID	4
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	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	0.02
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	0.02
PCB 180	DETSC 3401#	0.01	mg/kg	< 0.01
PCB 7 Total	DETSC 3401#	0.01	mg/kg	0.04
Phenols				
Phenol - Monohydric	DETSC 2130#	0.3	mg/kg	< 0.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	14000
Antimony	DETSC 2301*	1	mg/kg	2.8
Arsenic	DETSC 2301#	0.2	mg/kg	9.8
Barium	DETSC 2301#	1.5	mg/kg	160
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.7
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	41
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	52
Iron	DETSC 2301	25	mg/kg	39000
Lead	DETSC 2301#	0.3	mg/kg	38
Magnesium	DETSC 2301*	1	mg/kg	4300
Manganese	DETSC 2301#	20	mg/kg	680
Mercury	DETSC 2325#	0.05	mg/kg	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	1.1
Nickel	DETSC 2301#	1	mg/kg	22
Silicon	DETSC 2301*	10	mg/kg	170000
Vanadium	DETSC 2301#	0.8	mg/kg	96
Zinc	DETSC 2301#	1	mg/kg	81
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	130
Sulphur (free)	DETSC 3049#	0.75	mg/kg	11



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668557
Sample ID	PRAIRIE_AUK_TP164_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	6100
Antimony	DETSC 2301*	1	mg/kg	1.2
Arsenic	DETSC 2301#	0.2	mg/kg	9.6
Barium	DETSC 2301#	1.5	mg/kg	40
Beryllium	DETSC 2301#	0.2	mg/kg	0.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.5
Cadmium	DETSC 2301#	0.1	mg/kg	< 0.1
Chromium	DETSC 2301#	0.15	mg/kg	27
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	11
Iron	DETSC 2301	25	mg/kg	26000
Lead	DETSC 2301#	0.3	mg/kg	9.3
Magnesium	DETSC 2301*	1	mg/kg	1700
Manganese	DETSC 2301#	20	mg/kg	210
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	14
Silicon	DETSC 2301*	10	mg/kg	230000
Vanadium	DETSC 2301#	0.8	mg/kg	51
Zinc	DETSC 2301#	1	mg/kg	41
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	12
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.9
Organic matter	DETSC 2002#	0.1	%	0.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	19
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668557
Sample ID	PRAIRIE_AUK_TP164_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou		0	
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668557
Sample ID	PRAIRIE_AUK_TP164_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668557
Sample ID	PRAIRIE_AUK_TP164_SO_0070
Depth	0.70
Other ID	3
Sample Type	ES
<b>Sampling Date</b>	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668558
Sample ID	PRAIRIE_AUK_TP164_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	6300
Antimony	DETSC 2301*	1	mg/kg	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	51
Beryllium	DETSC 2301#	0.2	mg/kg	0.6
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	32
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	22
Iron	DETSC 2301	25	mg/kg	30000
Lead	DETSC 2301#	0.3	mg/kg	14
Magnesium	DETSC 2301*	1	mg/kg	2000
Manganese	DETSC 2301#	20	mg/kg	390
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.5
Nickel	DETSC 2301#	1	mg/kg	17
Silicon	DETSC 2301*	10	mg/kg	220000
Vanadium	DETSC 2301#	0.8	mg/kg	76
Zinc	DETSC 2301#	1	mg/kg	59
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	30
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668558
Sample ID	PRAIRIE_AUK_TP164_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668558
Sample ID	PRAIRIE_AUK_TP164_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668558
Sample ID	PRAIRIE_AUK_TP164_SO_0130
Depth	1.30
Other ID	5
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668559
Sample ID	PRAIRIE_AUK_TP184_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	10000
Antimony	DETSC 2301*	1	mg/kg	6.5
Arsenic	DETSC 2301#	0.2	mg/kg	8.6
Barium	DETSC 2301#	1.5	mg/kg	250
Beryllium	DETSC 2301#	0.2	mg/kg	0.8
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.8
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	390
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	71
Iron	DETSC 2301	25	mg/kg	100000
Lead	DETSC 2301#	0.3	mg/kg	44
Magnesium	DETSC 2301*	1	mg/kg	25000
Manganese	DETSC 2301#	20	mg/kg	22000
Mercury	DETSC 2325#	0.05	mg/kg	1.0
Molybdenum	DETSC 2301#	0.4	mg/kg	8.2
Nickel	DETSC 2301#	1	mg/kg	62
Silicon	DETSC 2301*	10	mg/kg	47000
Vanadium	DETSC 2301#	0.8	mg/kg	1700
Zinc	DETSC 2301#	1	mg/kg	130
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.5
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	95
Sulphur (free)	DETSC 3049#	0.75	mg/kg	3.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668559
Sample ID	PRAIRIE_AUK_TP184_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	2.7
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	18
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	24
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	46
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	46
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.32
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.06
Fluorene	DETSC 3303	0.03	mg/kg	0.12
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.53
Anthracene	DETSC 3303	0.03	mg/kg	0.36
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.67
Pyrene	DETSC 3303#	0.03	mg/kg	0.46
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.25
Chrysene	DETSC 3303	0.03	mg/kg	0.29
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.37
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.15
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.25
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.14



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668559
Sample ID	PRAIRIE_AUK_TP184_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.16
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	4.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668559
Sample ID	PRAIRIE_AUK_TP184_SO_0030
Depth	0.30
Other ID	2
Sample Type	ES
<b>Sampling Date</b>	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668560
Sample ID	PRAIRIE_AUK_TP106_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	9.5
Arsenic	DETSC 2301#	0.2	mg/kg	33
Barium	DETSC 2301#	1.5	mg/kg	330
Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.1
Cadmium	DETSC 2301#	0.1	mg/kg	2.1
Chromium	DETSC 2301#	0.15	mg/kg	82
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	150
Iron	DETSC 2301	25	mg/kg	95000
Lead	DETSC 2301#	0.3	mg/kg	220
Magnesium	DETSC 2301*	1	mg/kg	5400
Manganese	DETSC 2301#	20	mg/kg	1700
Mercury	DETSC 2325#	0.05	mg/kg	0.51
Molybdenum	DETSC 2301#	0.4	mg/kg	10
Nickel	DETSC 2301#	1	mg/kg	54
Silicon	DETSC 2301*	10	mg/kg	14000
Vanadium	DETSC 2301#	0.8	mg/kg	130
Zinc	DETSC 2301#	1	mg/kg	930
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	20
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.4
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.1
Organic matter	DETSC 2002#	0.1	%	2.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	290
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668560
Sample ID	PRAIRIE_AUK_TP106_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	2.9
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	25
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	28
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	0.7
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	9.5
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	46
Aromatic C5-C35	DETSC 3072*	10	mg/kg	56
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	84
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.11
Fluorene	DETSC 3303	0.03	mg/kg	0.07
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.8
Anthracene	DETSC 3303	0.03	mg/kg	0.49
Fluoranthene	DETSC 3303#	0.03	mg/kg	5.7
Pyrene	DETSC 3303#	0.03	mg/kg	4.8
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	2.3
Chrysene	DETSC 3303	0.03	mg/kg	2.0
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.6
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.2
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	2.4
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.84



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668560
Sample ID	PRAIRIE_AUK_TP106_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.21
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.1
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	26



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668560
Sample ID	PRAIRIE_AUK_TP106_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668561
Sample ID	PRAIRIE_AUK_TP116_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	49000
Antimony	DETSC 2301*	1	mg/kg	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	12
Barium	DETSC 2301#	1.5	mg/kg	590
Beryllium	DETSC 2301#	0.2	mg/kg	5.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	150
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	44
Iron	DETSC 2301	25	mg/kg	55000
Lead	DETSC 2301#	0.3	mg/kg	60
Magnesium	DETSC 2301*	1	mg/kg	32000
Manganese	DETSC 2301#	20	mg/kg	9200
Mercury	DETSC 2325#	0.05	mg/kg	0.15
Molybdenum	DETSC 2301#	0.4	mg/kg	4.2
Nickel	DETSC 2301#	1	mg/kg	20
Silicon	DETSC 2301*	10	mg/kg	64000
Vanadium	DETSC 2301#	0.8	mg/kg	150
Zinc	DETSC 2301#	1	mg/kg	150
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.5
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	9.4
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.0
Organic matter	DETSC 2002#	0.1	%	1.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	780
Sulphur (free)	DETSC 3049#	0.75	mg/kg	29



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668561
Sample ID	PRAIRIE_AUK_TP116_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

		Junpi		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.16
Anthracene	DETSC 3303	0.03	mg/kg	0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.48
Pyrene	DETSC 3303#	0.03	mg/kg	0.34
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.19
Chrysene	DETSC 3303	0.03	mg/kg	0.23
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.38
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.13
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.26
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668561
Sample ID	PRAIRIE_AUK_TP116_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.15
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668561
Sample ID	PRAIRIE_AUK_TP116_SO_0130
Depth	1.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668562
Sample ID	PRAIRIE_AUK_TP117_SO_0300
Depth	3.00
Other ID	8
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	< 0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	45000
Antimony	DETSC 2301*	1	mg/kg	1.4
Arsenic	DETSC 2301#	0.2	mg/kg	11
Barium	DETSC 2301#	1.5	mg/kg	420
Beryllium	DETSC 2301#	0.2	mg/kg	6.1
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.1
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	50
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	24
Iron	DETSC 2301	25	mg/kg	24000
Lead	DETSC 2301#	0.3	mg/kg	38
Magnesium	DETSC 2301*	1	mg/kg	25000
Manganese	DETSC 2301#	20	mg/kg	3800
Mercury	DETSC 2325#	0.05	mg/kg	0.12
Molybdenum	DETSC 2301#	0.4	mg/kg	0.9
Nickel	DETSC 2301#	1	mg/kg	10
Silicon	DETSC 2301*	10	mg/kg	100000
Vanadium	DETSC 2301#	0.8	mg/kg	160
Zinc	DETSC 2301#	1	mg/kg	120
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.9
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1100
Sulphur (free)	DETSC 3049#	0.75	mg/kg	5.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668562
Sample ID	PRAIRIE_AUK_TP117_SO_0300
Depth	3.00
Other ID	8
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.16
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.17
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.38
Fluorene	DETSC 3303	0.03	mg/kg	1.0
Phenanthrene	DETSC 3303#	0.03	mg/kg	7.2
Anthracene	DETSC 3303	0.03	mg/kg	1.6
Fluoranthene	DETSC 3303#	0.03	mg/kg	18
Pyrene	DETSC 3303#	0.03	mg/kg	15
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	8.1
Chrysene	DETSC 3303	0.03	mg/kg	5.8
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	6.1
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	2.5
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	5.5
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668562
Sample ID	PRAIRIE_AUK_TP117_SO_0300
Depth	3.00
Other ID	8
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.46
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.7
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668562
Sample ID	PRAIRIE_AUK_TP117_SO_0300
Depth	3.00
Other ID	8
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668563
Sample ID	PRAIRIE_AUK_TP118_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	25000
Antimony	DETSC 2301*	1	mg/kg	11
Arsenic	DETSC 2301#	0.2	mg/kg	24
Barium	DETSC 2301#	1.5	mg/kg	570
Beryllium	DETSC 2301#	0.2	mg/kg	2.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.3
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	610
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	140
Iron	DETSC 2301	25	mg/kg	120000
Lead	DETSC 2301#	0.3	mg/kg	87
Magnesium	DETSC 2301*	1	mg/kg	33000
Manganese	DETSC 2301#	20	mg/kg	25000
Mercury	DETSC 2325#	0.05	mg/kg	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	6.1
Nickel	DETSC 2301#	1	mg/kg	26
Silicon	DETSC 2301*	10	mg/kg	60000
Vanadium	DETSC 2301#	0.8	mg/kg	1300
Zinc	DETSC 2301#	1	mg/kg	270
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668563
Sample ID	PRAIRIE_AUK_TP118_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

		Junpi		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	7.1
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	29
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	36
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	36
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.26
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.64
Pyrene	DETSC 3303#	0.03	mg/kg	0.42
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.25
Chrysene	DETSC 3303	0.03	mg/kg	0.29
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.40
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.16
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.29
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.12



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668563
Sample ID	PRAIRIE_AUK_TP118_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.17
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	3.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668563
Sample ID	PRAIRIE_AUK_TP118_SO_0120
Depth	
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668564
Sample ID	PRAIRIE_AUK_TP127_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	10000
Antimony	DETSC 2301*	1	mg/kg	11
Arsenic	DETSC 2301#	0.2	mg/kg	2.2
Barium	DETSC 2301#	1.5	mg/kg	130
Beryllium	DETSC 2301#	0.2	mg/kg	0.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	3.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.4
Chromium	DETSC 2301#	0.15	mg/kg	740
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	25
Iron	DETSC 2301	25	mg/kg	170000
Lead	DETSC 2301#	0.3	mg/kg	15
Magnesium	DETSC 2301*	1	mg/kg	40000
Manganese	DETSC 2301#	20	mg/kg	19000
Mercury	DETSC 2325#	0.05	mg/kg	0.24
Molybdenum	DETSC 2301#	0.4	mg/kg	5.1
Nickel	DETSC 2301#	1	mg/kg	25
Silicon	DETSC 2301*	10	mg/kg	37000
Vanadium	DETSC 2301#	0.8	mg/kg	500
Zinc	DETSC 2301#	1	mg/kg	60
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	12.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	1.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.6
Organic matter	DETSC 2002#	0.1	%	0.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	10
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75
•				



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668564
Sample ID	PRAIRIE_AUK_TP127_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Pyrene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	0.04
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668564
Sample ID	PRAIRIE_AUK_TP127_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	0.16



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668564
Sample ID	PRAIRIE_AUK_TP127_SO_0030
Depth	0.30
Other ID	3
Sample Type	ES
<b>Sampling Date</b>	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668565
Sample ID	PRAIRIE_AUK_TP127A_SO_0280
Depth	2.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	9000
Antimony	DETSC 2301*	1	mg/kg	1.1
Arsenic	DETSC 2301#	0.2	mg/kg	6.2
Barium	DETSC 2301#	1.5	mg/kg	230
Beryllium	DETSC 2301#	0.2	mg/kg	1.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	30
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	23
Iron	DETSC 2301	25	mg/kg	23000
Lead	DETSC 2301#	0.3	mg/kg	27
Magnesium	DETSC 2301*	1	mg/kg	2500
Manganese	DETSC 2301#	20	mg/kg	560
Mercury	DETSC 2325#	0.05	mg/kg	0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Nickel	DETSC 2301#	1	mg/kg	20
Silicon	DETSC 2301*	10	mg/kg	150000
Vanadium	DETSC 2301#	0.8	mg/kg	41
Zinc	DETSC 2301#	1	mg/kg	89
Inorganics		•		
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.6
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	0.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	150
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668565
Sample ID	PRAIRIE_AUK_TP127A_SO_0280
Depth	2.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	<u>.</u>			
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668565
Sample ID	PRAIRIE_AUK_TP127A_SO_0280
Depth	2.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668565
Sample ID	PRAIRIE_AUK_TP127A_SO_0280
Depth	2.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	52000
Antimony	DETSC 2301*	1	mg/kg	1.6
Arsenic	DETSC 2301#	0.2	mg/kg	10
Barium	DETSC 2301#	1.5	mg/kg	520
Beryllium	DETSC 2301#	0.2	mg/kg	6.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Chromium	DETSC 2301#	0.15	mg/kg	38
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	36
Iron	DETSC 2301	25	mg/kg	19000
Lead	DETSC 2301#	0.3	mg/kg	33
Magnesium	DETSC 2301*	1	mg/kg	33000
Manganese	DETSC 2301#	20	mg/kg	4100
Mercury	DETSC 2325#	0.05	mg/kg	0.06
Molybdenum	DETSC 2301#	0.4	mg/kg	0.8
Nickel	DETSC 2301#	1	mg/kg	7.1
Silicon	DETSC 2301*	10	mg/kg	73000
Vanadium	DETSC 2301#	0.8	mg/kg	96
Zinc	DETSC 2301#	1	mg/kg	75
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.2
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.6
Organic matter	DETSC 2002#	0.1	%	1.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	290
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Test

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Method	LOD	Units	
DETSC 3321*	0.01	mg/kg	< 0.01
DETSC 3321*	0.01	mg/kg	< 0.01
DETSC 3321*	0.01	mg/kg	< 0.01
DETSC 3072#	1.5	mg/kg	< 1.5
DETSC 3072#	1.2	mg/kg	< 1.2
DETSC 3072#	1.5	mg/kg	< 1.5
DETSC 3072#	3.4	mg/kg	< 3.4
DETSC 3072*	10	mg/kg	< 10
DETSC 3321*	0.01	mg/kg	< 0.01
DETSC 3321*	0.01	mg/kg	< 0.01
DETSC 3321*	0.01	mg/kg	< 0.01
DETSC 3072#	0.9	mg/kg	< 0.9
DETSC 3072#	0.5	mg/kg	< 0.5
DETSC 3072#	0.6	mg/kg	< 0.6
DETSC 3072#	1.4	mg/kg	< 1.4
DETSC 3072*	10	mg/kg	< 10
DETSC 3072*	10	mg/kg	< 10
DETSC 3311#	10	mg/kg	
DETSC 3303#	0.03	mg/kg	< 0.03
DETSC 3303#	0.03	mg/kg	< 0.03
DETSC 3303#	0.03	mg/kg	< 0.03
DETSC 3303	0.03	mg/kg	< 0.03
DETSC 3303#	0.03	mg/kg	0.47
DETSC 3303	0.03	mg/kg	0.06
DETSC 3303#	0.03	mg/kg	0.85
DETSC 3303#	0.03	mg/kg	0.55
DETSC 3303#	0.03	mg/kg	0.16
DETSC 3303	0.03	mg/kg	0.30
DETSC 3303#	0.03	mg/kg	0.28
DETSC 3303#	0.03	mg/kg	0.09
DETSC 3303#	0.03	mg/kg	0.15
DETSC 3303#	0.03	mg/kg	0.08
	DETSC 3321* DETSC 3321* DETSC 3321* DETSC 3072# DETSC 3072# DETSC 3072# DETSC 3072* DETSC 3072* DETSC 3321* DETSC 3321* DETSC 3321* DETSC 3321* DETSC 3072# DETSC 3072* DETSC 3072* DETSC 3072* DETSC 3072* DETSC 3303#	DETSC 3321* 0.01 DETSC 3321* 0.01 DETSC 3321* 0.01 DETSC 3072# 1.5 DETSC 3072# 3.4 DETSC 3072* 10 DETSC 3321* 0.01 DETSC 3321* 0.01 DETSC 3321* 0.01 DETSC 3321* 0.01 DETSC 3321* 0.5 DETSC 3072# 0.5 DETSC 3072# 0.5 DETSC 3072# 0.5 DETSC 3072# 1.4 DETSC 3072# 1.4 DETSC 3072* 10 DETSC 3303# 0.03	DETSC 3321* 0.01 mg/kg DETSC 3321* 0.01 mg/kg DETSC 3321* 0.01 mg/kg DETSC 3072# 1.5 mg/kg DETSC 3072# 1.5 mg/kg DETSC 3072# 1.5 mg/kg DETSC 3072# 1.5 mg/kg DETSC 3072# 1.0 mg/kg DETSC 3072* 10 mg/kg DETSC 3321* 0.01 mg/kg DETSC 3321* 0.9 mg/kg DETSC 3072# 0.9 mg/kg DETSC 3072# 0.6 mg/kg DETSC 3072# 0.6 mg/kg DETSC 3072# 1.4 mg/kg DETSC 3072# 1.4 mg/kg DETSC 3072* 10 mg/kg DETSC 3072* 10 mg/kg DETSC 3072* 10 mg/kg DETSC 3311# 10 mg/kg DETSC 3303# 0.03 mg/kg



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.10
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	3.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668567
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	8900
Antimony	DETSC 2301*	1	mg/kg	34
Arsenic	DETSC 2301#	0.2	mg/kg	130
Barium	DETSC 2301#	1.5	mg/kg	350
Beryllium	DETSC 2301#	0.2	mg/kg	0.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.9
Cadmium	DETSC 2301#	0.1	mg/kg	15
Chromium	DETSC 2301#	0.15	mg/kg	450
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	1700
Iron	DETSC 2301	25	mg/kg	260000
Lead	DETSC 2301#	0.3	mg/kg	1200
Magnesium	DETSC 2301*	1	mg/kg	14000
Manganese	DETSC 2301#	20	mg/kg	10000
Mercury	DETSC 2325#	0.05	mg/kg	0.37
Molybdenum	DETSC 2301#	0.4	mg/kg	21
Nickel	DETSC 2301#	1	mg/kg	200
Silicon	DETSC 2301*	10	mg/kg	37000
Vanadium	DETSC 2301#	0.8	mg/kg	740
Zinc	DETSC 2301#	1	mg/kg	3100
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
pH	DETSC 2008#		рН	11.1
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	2.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.9
Organic matter	DETSC 2002#	0.1	%	10
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	770
Sulphur (free)	DETSC 3049#	0.75	mg/kg	220



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668567
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	10
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	130
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	1300
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	5600
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	7000
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	3.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	97
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	1400
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	6600
Aromatic C5-C35	DETSC 3072*	10	mg/kg	8100
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	15000
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.35
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.11
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.61
Fluorene	DETSC 3303	0.03	mg/kg	0.97
Phenanthrene	DETSC 3303#	0.03	mg/kg	3.0
Anthracene	DETSC 3303	0.03	mg/kg	0.57
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.9
Pyrene	DETSC 3303#	0.03	mg/kg	3.8
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.8
Chrysene	DETSC 3303	0.03	mg/kg	2.7
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.3
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.95
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.7
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.64



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149 Client Ref 4251

1668567
PRAIRIE_AUK_TP141_SO_0200
2.00
4
ES
23/04/2020
n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.18
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.78
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	25



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668567
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668568
Sample ID	PRAIRIE_AUK_TP142_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	4300
Antimony	DETSC 2301*	1	mg/kg	16
Arsenic	DETSC 2301#	0.2	mg/kg	32
Barium	DETSC 2301#	1.5	mg/kg	50
Beryllium	DETSC 2301#	0.2	mg/kg	< 0.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.4
Cadmium	DETSC 2301#	0.1	mg/kg	1.5
Chromium	DETSC 2301#	0.15	mg/kg	220
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	220
Iron	DETSC 2301	25	mg/kg	450000
Lead	DETSC 2301#	0.3	mg/kg	170
Magnesium	DETSC 2301*	1	mg/kg	7400
Manganese	DETSC 2301#	20	mg/kg	10000
Mercury	DETSC 2325#	0.05	mg/kg	0.11
Molybdenum	DETSC 2301#	0.4	mg/kg	17
Nickel	DETSC 2301#	1	mg/kg	82
Silicon	DETSC 2301*	10	mg/kg	15000
Vanadium	DETSC 2301#	0.8	mg/kg	170
Zinc	DETSC 2301#	1	mg/kg	170
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.9
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	10
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	31
Sulphur (free)	DETSC 3049#	0.75	mg/kg	30



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668568
Sample ID	PRAIRIE_AUK_TP142_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	11/3
Petroleum Hydrocarbons	Wicthou		011103	
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	3.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	37
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	300
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	6100
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	6400
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	19
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	160
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	2100
Aromatic C5-C35	DETSC 3072*	10	mg/kg	2200
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	8700
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.12
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.23
Fluorene	DETSC 3303	0.03	mg/kg	0.18
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.90
Anthracene	DETSC 3303	0.03	mg/kg	0.25
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.6
Pyrene	DETSC 3303#	0.03	mg/kg	1.1
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.45
Chrysene	DETSC 3303	0.03	mg/kg	0.68
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.76
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.39
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.54
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.25



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668568
Sample ID	PRAIRIE_AUK_TP142_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.08
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.33
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	7.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668568
Sample ID	PRAIRIE_AUK_TP142_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	2700
Antimony	DETSC 2301*	1	mg/kg	36
Arsenic	DETSC 2301#	0.2	mg/kg	130
Barium	DETSC 2301#	1.5	mg/kg	92
Beryllium	DETSC 2301#	0.2	mg/kg	< 0.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.0
Cadmium	DETSC 2301#	0.1	mg/kg	5.7
Chromium	DETSC 2301#	0.15	mg/kg	310
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	1400
Iron	DETSC 2301	25	mg/kg	650000
Lead	DETSC 2301#	0.3	mg/kg	550
Magnesium	DETSC 2301*	1	mg/kg	2600
Manganese	DETSC 2301#	20	mg/kg	4000
Mercury	DETSC 2325#	0.05	mg/kg	0.14
Molybdenum	DETSC 2301#	0.4	mg/kg	61
Nickel	DETSC 2301#	1	mg/kg	320
Silicon	DETSC 2301*	10	mg/kg	22000
Vanadium	DETSC 2301#	0.8	mg/kg	140
Zinc	DETSC 2301#	1	mg/kg	890
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
pH	DETSC 2008#		рН	10.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	6.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	210
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.10
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	8.6
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	41
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	260
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	2300
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	2600
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.11
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.06
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	21
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	160
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	1000
Aromatic C5-C35	DETSC 3072*	10	mg/kg	1200
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	3800
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.04
Fluorene	DETSC 3303	0.03	mg/kg	0.10
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.33
Anthracene	DETSC 3303	0.03	mg/kg	0.18
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.13
Pyrene	DETSC 3303#	0.03	mg/kg	0.17
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Chrysene	DETSC 3303	0.03	mg/kg	0.21
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.07
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.04
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.04
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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	0.8



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668570
Sample ID	PRAIRIE_AUK_TP143_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	39000
Antimony	DETSC 2301*	1	mg/kg	4.3
Arsenic	DETSC 2301#	0.2	mg/kg	20
Barium	DETSC 2301#	1.5	mg/kg	570
Beryllium	DETSC 2301#	0.2	mg/kg	4.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	82
Iron	DETSC 2301	25	mg/kg	81000
Lead	DETSC 2301#	0.3	mg/kg	190
Magnesium	DETSC 2301*	1	mg/kg	25000
Manganese	DETSC 2301#	20	mg/kg	4100
Mercury	DETSC 2325#	0.05	mg/kg	0.45
Molybdenum	DETSC 2301#	0.4	mg/kg	3.4
Nickel	DETSC 2301#	1	mg/kg	23
Silicon	DETSC 2301*	10	mg/kg	73000
Vanadium	DETSC 2301#	0.8	mg/kg	150
Zinc	DETSC 2301#	1	mg/kg	230
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	4.6
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668570
Sample ID	PRAIRIE_AUK_TP143_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	4.5
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	8.2
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	24
Aromatic C5-C35	DETSC 3072*	10	mg/kg	32
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	37
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.06
Fluorene	DETSC 3303	0.03	mg/kg	0.05
Phenanthrene	DETSC 3303#	0.03	mg/kg	2.2
Anthracene	DETSC 3303	0.03	mg/kg	0.50
Fluoranthene	DETSC 3303#	0.03	mg/kg	9.9
Pyrene	DETSC 3303#	0.03	mg/kg	9.2
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	5.8
Chrysene	DETSC 3303	0.03	mg/kg	4.3
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	6.1
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	2.3
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	3.9
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668570
Sample ID	PRAIRIE_AUK_TP143_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.52
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	2.2
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	49



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668570
Sample ID	PRAIRIE_AUK_TP143_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668571
Sample ID	PRAIRIE_AUK_TP143_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	17
Arsenic	DETSC 2301#	0.2	mg/kg	68
Barium	DETSC 2301#	1.5	mg/kg	210
Beryllium	DETSC 2301#	0.2	mg/kg	0.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.7
Cadmium	DETSC 2301#	0.1	mg/kg	2.7
Chromium	DETSC 2301#	0.15	mg/kg	180
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	650
Iron	DETSC 2301	25	mg/kg	320000
Lead	DETSC 2301#	0.3	mg/kg	310
Magnesium	DETSC 2301*	1	mg/kg	3600
Manganese	DETSC 2301#	20	mg/kg	2500
Mercury	DETSC 2325#	0.05	mg/kg	0.09
Molybdenum	DETSC 2301#	0.4	mg/kg	29
Nickel	DETSC 2301#	1	mg/kg	200
Silicon	DETSC 2301*	10	mg/kg	110000
Vanadium	DETSC 2301#	0.8	mg/kg	97
Zinc	DETSC 2301#	1	mg/kg	510
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	< 0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	7.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	200
Sulphur (free)	DETSC 3049#	0.75	mg/kg	1.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668571
Sample ID	PRAIRIE_AUK_TP143_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	3.6
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668571
Sample ID	PRAIRIE_AUK_TP143_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668571
Sample ID	PRAIRIE_AUK_TP143_SO_0160
Depth	1.60
Other ID	6
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668572
Sample ID	PRAIRIE_AUK_TP151_SO_0120
Depth	1.20
Other ID	5
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	47000
Antimony	DETSC 2301*	1	mg/kg	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	18
Barium	DETSC 2301#	1.5	mg/kg	590
Beryllium	DETSC 2301#	0.2	mg/kg	5.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.9
Chromium	DETSC 2301#	0.15	mg/kg	120
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	84
Iron	DETSC 2301	25	mg/kg	78000
Lead	DETSC 2301#	0.3	mg/kg	90
Magnesium	DETSC 2301*	1	mg/kg	29000
Manganese	DETSC 2301#	20	mg/kg	5400
Mercury	DETSC 2325#	0.05	mg/kg	0.25
Molybdenum	DETSC 2301#	0.4	mg/kg	3.0
Nickel	DETSC 2301#	1	mg/kg	26
Silicon	DETSC 2301*	10	mg/kg	48000
Vanadium	DETSC 2301#	0.8	mg/kg	250
Zinc	DETSC 2301#	1	mg/kg	490
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.0
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.7
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	3.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	490
Sulphur (free)	DETSC 3049#	0.75	mg/kg	49



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1668572
Sample ID	PRAIRIE_AUK_TP151_SO_0120
Depth	1.20
Other ID	5
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	2.8
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	4.8
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	39
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	180
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	220
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	1.0
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	18
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	95
Aromatic C5-C35	DETSC 3072*	10	mg/kg	110
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	340
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.04
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.24
Fluorene	DETSC 3303	0.03	mg/kg	0.18
Phenanthrene	DETSC 3303#	0.03	mg/kg	2.8
Anthracene	DETSC 3303	0.03	mg/kg	0.64
Fluoranthene	DETSC 3303#	0.03	mg/kg	7.2
Pyrene	DETSC 3303#	0.03	mg/kg	5.9
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	3.0
Chrysene	DETSC 3303	0.03	mg/kg	2.3
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	3.1
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.3
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	2.7
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.84



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668572
Sample ID	PRAIRIE_AUK_TP151_SO_0120
Depth	1.20
Other ID	5
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.23
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.2
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	32



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668572
Sample ID	PRAIRIE_AUK_TP151_SO_0120
Depth	
Other ID	5
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668657
Sample ID	PRAIRIE_AUK_TP139_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Asbestos Quantification  Metals  Aluminium	DETSC 2301*	0.001	%	
		1		
Aluminium		1		
	DETCC 2201*	1	mg/kg	15000
Antimony	DETSC 2301*	1	mg/kg	12
Arsenic	DETSC 2301#	0.2	mg/kg	75
Barium	DETSC 2301#	1.5	mg/kg	820
Beryllium	DETSC 2301#	0.2	mg/kg	1.4
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	39
Cadmium	DETSC 2301#	0.1	mg/kg	17
Chromium	DETSC 2301#	0.15	mg/kg	47
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	90
Iron	DETSC 2301	25	mg/kg	110000
Lead	DETSC 2301#	0.3	mg/kg	1100
Magnesium	DETSC 2301*	1	mg/kg	25000
Manganese	DETSC 2301#	20	mg/kg	64000
Mercury	DETSC 2325#	0.05	mg/kg	3.6
Molybdenum	DETSC 2301#	0.4	mg/kg	7.9
Nickel	DETSC 2301#	1	mg/kg	42
Silicon	DETSC 2301*	10	mg/kg	37000
Vanadium	DETSC 2301#	0.8	mg/kg	46
Zinc	DETSC 2301#	1	mg/kg	1200
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.4
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	470
Cyanide, Free	DETSC 2130#	0.1	mg/kg	1.0
Thiocyanate	DETSC 2130#	0.6	mg/kg	21
Organic matter	DETSC 2002#	0.1	%	2.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	520
Sulphur (free)	DETSC 3049#	0.75	mg/kg	95



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668657
Sample ID	PRAIRIE_AUK_TP139_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	3.8
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.29
Fluorene	DETSC 3303	0.03	mg/kg	0.13
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.74
Anthracene	DETSC 3303	0.03	mg/kg	0.31
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.3
Pyrene	DETSC 3303#	0.03	mg/kg	0.72
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.39
Chrysene	DETSC 3303	0.03	mg/kg	0.61
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.54
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.14
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.33
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.07



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668657
Sample ID	PRAIRIE_AUK_TP139_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.04
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.14
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	9.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668657
Sample ID	PRAIRIE_AUK_TP139_SO_0110
Depth	1.10
Other ID	4
Sample Type	ES
Sampling Date	16/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	0.001
Metals				
Aluminium	DETSC 2301*	1	mg/kg	47000
Antimony	DETSC 2301*	1	mg/kg	4.4
Arsenic	DETSC 2301#	0.2	mg/kg	24
Barium	DETSC 2301#	1.5	mg/kg	470
Beryllium	DETSC 2301#	0.2	mg/kg	6.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.7
Cadmium	DETSC 2301#	0.1	mg/kg	0.8
Chromium	DETSC 2301#	0.15	mg/kg	66
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	220
Iron	DETSC 2301	25	mg/kg	76000
Lead	DETSC 2301#	0.3	mg/kg	130
Magnesium	DETSC 2301*	1	mg/kg	24000
Manganese	DETSC 2301#	20	mg/kg	3600
Mercury	DETSC 2325#	0.05	mg/kg	0.68
Molybdenum	DETSC 2301#	0.4	mg/kg	4.9
Nickel	DETSC 2301#	1	mg/kg	35
Silicon	DETSC 2301*	10	mg/kg	56000
Vanadium	DETSC 2301#	0.8	mg/kg	81
Zinc	DETSC 2301#	1	mg/kg	550
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	9.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	6.8
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	1.0
Organic matter	DETSC 2002#	0.1	%	2.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	370
Sulphur (free)	DETSC 3049#	0.75	mg/kg	57



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

		-		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	4.2
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	3.8
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	7.9
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	39
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	55
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	55
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.10
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.07
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.11
Fluorene	DETSC 3303	0.03	mg/kg	0.16
Phenanthrene	DETSC 3303#	0.03	mg/kg	1.7
Anthracene	DETSC 3303	0.03	mg/kg	0.34
Fluoranthene	DETSC 3303#	0.03	mg/kg	2.6
Pyrene	DETSC 3303#	0.03	mg/kg	2.3
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.2
Chrysene	DETSC 3303	0.03	mg/kg	1.6
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.0
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.78
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.3
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.87



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.29
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.2
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	17



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	12000
Antimony	DETSC 2301*	1	mg/kg	6.6
Arsenic	DETSC 2301#	0.2	mg/kg	26
Barium	DETSC 2301#	1.5	mg/kg	280
Beryllium	DETSC 2301#	0.2	mg/kg	1.5
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.6
Cadmium	DETSC 2301#	0.1	mg/kg	0.7
Chromium	DETSC 2301#	0.15	mg/kg	340
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	67
Iron	DETSC 2301	25	mg/kg	90000
Lead	DETSC 2301#	0.3	mg/kg	90
Magnesium	DETSC 2301*	1	mg/kg	19000
Manganese	DETSC 2301#	20	mg/kg	9900
Mercury	DETSC 2325#	0.05	mg/kg	< 0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	2.1
Nickel	DETSC 2301#	1	mg/kg	28
Silicon	DETSC 2301*	10	mg/kg	58000
Vanadium	DETSC 2301#	0.8	mg/kg	1500
Zinc	DETSC 2301#	1	mg/kg	470
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	11.7
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.1
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	110
Sulphur (free)	DETSC 3049#	0.75	mg/kg	2.5
	-		J. U	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	0.05
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	2.8
Anthracene	DETSC 3303	0.03	mg/kg	0.47
Fluoranthene	DETSC 3303#	0.03	mg/kg	4.0
Pyrene	DETSC 3303#	0.03	mg/kg	2.7
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.79
Chrysene	DETSC 3303	0.03	mg/kg	0.75
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.64
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.30
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.28
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.24



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.20
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	13



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	73000
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	8.4
Barium	DETSC 2301#	1.5	mg/kg	210
Beryllium	DETSC 2301#	0.2	mg/kg	9.7
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	16
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	14
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	18
Iron	DETSC 2301	25	mg/kg	9400
Lead	DETSC 2301#	0.3	mg/kg	11
Magnesium	DETSC 2301*	1	mg/kg	28000
Manganese	DETSC 2301#	20	mg/kg	1300
Mercury	DETSC 2325#	0.05	mg/kg	0.37
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	4.9
Silicon	DETSC 2301*	10	mg/kg	140000
Vanadium	DETSC 2301#	0.8	mg/kg	53
Zinc	DETSC 2301#	1	mg/kg	57
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	24
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.2
Thiocyanate	DETSC 2130#	0.6	mg/kg	2.2
Organic matter	DETSC 2002#	0.1	%	1.9
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	530
Sulphur (free)	DETSC 3049#	0.75	mg/kg	93



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	1.8
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	45
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	190
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	40
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	280
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	6800
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	3500
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	620
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	170
Aromatic C5-C35	DETSC 3072*	10	mg/kg	11000
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	11000
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	<u>.</u>			
Naphthalene	DETSC 3303#	0.03	mg/kg	1100
Acenaphthylene	DETSC 3303#	0.03	mg/kg	46
Acenaphthene	DETSC 3303#	0.03	mg/kg	780
Fluorene	DETSC 3303	0.03	mg/kg	330
Phenanthrene	DETSC 3303#	0.03	mg/kg	230
Anthracene	DETSC 3303	0.03	mg/kg	49
Fluoranthene	DETSC 3303#	0.03	mg/kg	41
Pyrene	DETSC 3303#	0.03	mg/kg	25
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	6.5
Chrysene	DETSC 3303	0.03	mg/kg	5.0
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.9
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	1.2
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	1.8
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.56



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.19
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.80
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	2600



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	77000
Antimony	DETSC 2301*	1	mg/kg	1.3
Arsenic	DETSC 2301#	0.2	mg/kg	7.6
Barium	DETSC 2301#	1.5	mg/kg	200
Beryllium	DETSC 2301#	0.2	mg/kg	8.9
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	2.2
Cadmium	DETSC 2301#	0.1	mg/kg	0.1
Chromium	DETSC 2301#	0.15	mg/kg	66
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	15
Iron	DETSC 2301	25	mg/kg	14000
Lead	DETSC 2301#	0.3	mg/kg	9.2
Magnesium	DETSC 2301*	1	mg/kg	31000
Manganese	DETSC 2301#	20	mg/kg	2700
Mercury	DETSC 2325#	0.05	mg/kg	0.22
Molybdenum	DETSC 2301#	0.4	mg/kg	< 0.4
Nickel	DETSC 2301#	1	mg/kg	4.1
Silicon	DETSC 2301*	10	mg/kg	160000
Vanadium	DETSC 2301#	0.8	mg/kg	270
Zinc	DETSC 2301#	1	mg/kg	37
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	50
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	3.7
Organic matter	DETSC 2002#	0.1	%	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	470
Sulphur (free)	DETSC 3049#	0.75	mg/kg	69



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	0.12
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	7.1
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	3.8
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	7.6
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	19
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	0.16
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.08
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	4.4
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	390
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	290
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	64
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	23
Aromatic C5-C35	DETSC 3072*	10	mg/kg	770
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	790
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	220
Acenaphthylene	DETSC 3303#	0.03	mg/kg	9.9
Acenaphthene	DETSC 3303#	0.03	mg/kg	230
Fluorene	DETSC 3303	0.03	mg/kg	120
Phenanthrene	DETSC 3303#	0.03	mg/kg	74
Anthracene	DETSC 3303	0.03	mg/kg	17
Fluoranthene	DETSC 3303#	0.03	mg/kg	14
Pyrene	DETSC 3303#	0.03	mg/kg	8.9
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	1.5
Chrysene	DETSC 3303	0.03	mg/kg	1.2
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.75
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.28
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.53
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.19



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.21
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	690



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
<b>Sampling Date</b>	29/04/2020
Sampling Time	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	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	23000
Antimony	DETSC 2301*	1	mg/kg	6.5
Arsenic	DETSC 2301#	0.2	mg/kg	100
Barium	DETSC 2301#	1.5	mg/kg	190
Beryllium	DETSC 2301#	0.2	mg/kg	3.0
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	4.2
Cadmium	DETSC 2301#	0.1	mg/kg	2.1
Chromium	DETSC 2301#	0.15	mg/kg	84
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	170
Iron	DETSC 2301	25	mg/kg	150000
Lead	DETSC 2301#	0.3	mg/kg	320
Magnesium	DETSC 2301*	1	mg/kg	7900
Manganese	DETSC 2301#	20	mg/kg	3100
Mercury	DETSC 2325#	0.05	mg/kg	0.27
Molybdenum	DETSC 2301#	0.4	mg/kg	4.1
Nickel	DETSC 2301#	1	mg/kg	110
Silicon	DETSC 2301*	10	mg/kg	54000
Vanadium	DETSC 2301#	0.8	mg/kg	270
Zinc	DETSC 2301#	1	mg/kg	2000
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	8.2
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	14
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	0.7
Organic matter	DETSC 2002#	0.1	%	2.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	1800
Sulphur (free)	DETSC 3049#	0.75	mg/kg	0.75
	-			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	16
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	17
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	17
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	7.9
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	4.7
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	16
Aromatic C5-C35	DETSC 3072*	10	mg/kg	45
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	62
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	•	•		
Naphthalene	DETSC 3303#	0.03	mg/kg	0.20
Acenaphthylene	DETSC 3303#	0.03	mg/kg	0.27
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.13
Fluorene	DETSC 3303	0.03	mg/kg	0.10
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.52
Anthracene	DETSC 3303	0.03	mg/kg	0.13
Fluoranthene	DETSC 3303#	0.03	mg/kg	1.0
Pyrene	DETSC 3303#	0.03	mg/kg	0.78
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.52
Chrysene	DETSC 3303	0.03	mg/kg	0.85
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	2.4
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.85
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.72
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	1.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.32
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	1.4
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	11



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
Sampling Date	30/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	890
Antimony	DETSC 2301*	1	mg/kg	< 1.0
Arsenic	DETSC 2301#	0.2	mg/kg	4.0
Barium	DETSC 2301#	1.5	mg/kg	85
Beryllium	DETSC 2301#	0.2	mg/kg	< 0.2
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.9
Cadmium	DETSC 2301#	0.1	mg/kg	0.6
Chromium	DETSC 2301#	0.15	mg/kg	3.9
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	9.7
Iron	DETSC 2301	25	mg/kg	4400
Lead	DETSC 2301#	0.3	mg/kg	20
Magnesium	DETSC 2301*	1	mg/kg	3700
Manganese	DETSC 2301#	20	mg/kg	330
Mercury	DETSC 2325#	0.05	mg/kg	0.71
Molybdenum	DETSC 2301#	0.4	mg/kg	0.4
Nickel	DETSC 2301#	1	mg/kg	3.8
Silicon	DETSC 2301*	10	mg/kg	9400
Vanadium	DETSC 2301#	0.8	mg/kg	11
Zinc	DETSC 2301#	1	mg/kg	140
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	10.3
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	130
Cyanide, Free	DETSC 2130#	0.1	mg/kg	0.5
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	1.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	270
Sulphur (free)	DETSC 3049#	0.75	mg/kg	43



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
Sampling Date	30/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons	T.			
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	6.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	14
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	22
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	0.95
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	41
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	300
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	67
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	28
Aromatic C5-C35	DETSC 3072*	10	mg/kg	440
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	460
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs	•			
Naphthalene	DETSC 3303#	0.03	mg/kg	140
Acenaphthylene	DETSC 3303#	0.03	mg/kg	22
Acenaphthene	DETSC 3303#	0.03	mg/kg	310
Fluorene	DETSC 3303	0.03	mg/kg	120
Phenanthrene	DETSC 3303#	0.03	mg/kg	68
Anthracene	DETSC 3303	0.03	mg/kg	26
Fluoranthene	DETSC 3303#	0.03	mg/kg	24
Pyrene	DETSC 3303#	0.03	mg/kg	15
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	2.4
Chrysene	DETSC 3303	0.03	mg/kg	2.0
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.95
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	0.47
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	0.63
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	0.20
** *				



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
Sampling Date	30/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	0.21
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	730



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
<b>Sampling Date</b>	30/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675450
Sample ID	PRAIRIE_AUK_BH101_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	27/04/2020
Sampling Time	n/s

Boron, Water Soluble	Test	Method	LOD	Units	
Aluminium	Asbestos Quantification	DETSC 1102	0.001	%	
Antimony DETSC 2301* 1 mg/kg	Metals				
Arsenic         DETSC 2301#         0.2         mg/kg         8.3           Barium         DETSC 2301#         1.5         mg/kg         290           Beryllium         DETSC 2301#         0.2         mg/kg         1.1           Boron, Water Soluble         DETSC 2301#         0.2         mg/kg         0.3           Cadmium         DETSC 2301#         0.1         mg/kg         0.3           Chromium         DETSC 2301#         0.1         mg/kg         26           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         27           Iron         DETSC 2301#         0.2         mg/kg         32000           Lead         DETSC 2301#         0.2         mg/kg         32000           Lead         DETSC 2301#         0.3         mg/kg         33           Magnesium         DETSC 2301#         0.3         mg/kg         33           Magnesium         DETSC 2301#         0.0         mg/kg         730           Mercury         DETSC 2301#         0.0         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         0.4	Aluminium	DETSC 2301*	1	mg/kg	12000
Barium         DETSC 2301#         1.5         mg/kg         290           Beryllium         DETSC 2301#         0.2         mg/kg         1.1           Boron, Water Soluble         DETSC 2311#         0.2         mg/kg         1.1           Cadmium         DETSC 2301#         0.1         mg/kg         0.3           Chromium         DETSC 2301#         0.15         mg/kg         26           Chromium, Hexavalent         DETSC 2301#         0.2         mg/kg         27           Iron         DETSC 2301#         0.2         mg/kg         32000           Lead         DETSC 2301#         0.3         mg/kg         330           Magnesium         DETSC 2301#         0.3         mg/kg         7700           Manganese         DETSC 2301#         20         mg/kg         730           Mercury         DETSC 2301#         20         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.05           Nickel         DETSC 2301#         0.4         mg/kg         0.05           Silicon         DETSC 2301#         0.8         mg/kg         160000           Vanadium         DETSC 2301#         0.	Antimony	DETSC 2301*	1	mg/kg	1.6
Detryllium	Arsenic	DETSC 2301#	0.2	mg/kg	8.3
Boron, Water Soluble	Barium	DETSC 2301#	1.5	mg/kg	290
Cadmium         DETSC 2301#         0.1         mg/kg         0.3           Chromium         DETSC 2301#         0.15         mg/kg         26           Chromium, Hexavalent         DETSC 2204*         1         mg/kg         <1.0	Beryllium	DETSC 2301#	0.2	mg/kg	1.1
Chromium         DETSC 2301#         0.15         mg/kg         26           Chromium, Hexavalent         DETSC 2204*         1         mg/kg         < 1.0	Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	1.1
Chromium, Hexavalent         DETSC 2204*         1         mg/kg         < 1.0           Copper         DETSC 2301#         0.2         mg/kg         27           Iron         DETSC 2301         25         mg/kg         32000           Lead         DETSC 2301#         0.3         mg/kg         33           Magnesium         DETSC 2301#         1         mg/kg         7700           Manganese         DETSC 2301#         20         mg/kg         730           Mercury         DETSC 2325#         0.05         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301#         1         mg/kg         160000           Vanadium         DETSC 2301#         1         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         DETSC 2301#         1         mg/kg         110           Loss on Ignition at 440oC         DETSC 2008#         pH         7.8           Calorific Value         DETSC 2008#         pH         7.8	Cadmium	DETSC 2301#	0.1	mg/kg	0.3
Copper         DETSC 2301#         0.2         mg/kg         27           Iron         DETSC 2301         25         mg/kg         32000           Lead         DETSC 2301#         0.3         mg/kg         33           Magnesium         DETSC 2301*         1         mg/kg         7700           Manganese         DETSC 2301#         20         mg/kg         730           Mercury         DETSC 2325#         0.05         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301#         1         mg/kg         160000           Vanadium         DETSC 2301#         0.8         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         Inorganics         1         mg/kg         110           Loss on Ignition at 440oC         DETSC 2003#         0.01         %           PH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 2008#         pH         7.8           Calorific Valu	Chromium	DETSC 2301#	0.15	mg/kg	26
Detect   D	Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Lead         DETSC 2301#         0.3         mg/kg         33           Magnesium         DETSC 2301*         1         mg/kg         7700           Manganese         DETSC 2301#         20         mg/kg         730           Mercury         DETSC 2325#         0.05         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301#         10         mg/kg         160000           Vanadium         DETSC 2301#         1         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         DETSC 2301#         1         mg/kg         110           Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 2008#         pH         7.8           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         0.1	Copper	DETSC 2301#	0.2	mg/kg	27
Magnesium         DETSC 2301*         1         mg/kg         7700           Manganese         DETSC 2301#         20         mg/kg         730           Mercury         DETSC 2325#         0.05         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301#         10         mg/kg         160000           Vanadium         DETSC 2301#         1         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         Imag/kg         110         mg/kg         110           Loss on Ignition at 4400C         DETSC 2003#         0.01         %         DH         7.8           Calorific Value         DETSC 2008#         pH         7.8         7.8           Calorific Value         DETSC 2008#         pH         7.8           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Iron	DETSC 2301	25	mg/kg	32000
Manganese         DETSC 2301#         20         mg/kg         730           Mercury         DETSC 2325#         0.05         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301*         10         mg/kg         160000           Vanadium         DETSC 2301#         0.8         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         Inorganics         DETSC 2003#         0.01         %           PH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         <0.1	Lead	DETSC 2301#	0.3	mg/kg	33
Mercury         DETSC 2325#         0.05         mg/kg         0.05           Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301*         10         mg/kg         160000           Vanadium         DETSC 2301#         0.8         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         Imag/kg         110         10           PH         DETSC 2003#         0.01         %           Calorific Value         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Magnesium	DETSC 2301*	1	mg/kg	7700
Molybdenum         DETSC 2301#         0.4         mg/kg         0.6           Nickel         DETSC 2301#         1         mg/kg         32           Silicon         DETSC 2301*         10         mg/kg         160000           Vanadium         DETSC 2301#         0.8         mg/kg         27           Zinc         DETSC 2301#         1         mg/kg         110           Inorganics         Loss on Ignition at 4400C         DETSC 2003#         0.01         %         9H         7.8           Calorific Value         DETSC 2008#         pH         7.8         7.8           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Manganese	DETSC 2301#	20	mg/kg	730
Nickel         DETSC 2301#         1 mg/kg         32           Silicon         DETSC 2301*         10 mg/kg         160000           Vanadium         DETSC 2301#         0.8 mg/kg         27           Zinc         DETSC 2301#         1 mg/kg         110           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	Mercury	DETSC 2325#	0.05	mg/kg	0.05
Silicon         DETSC 2301*         10 mg/kg         160000           Vanadium         DETSC 2301#         0.8 mg/kg         27           Zinc         DETSC 2301#         1 mg/kg         110           Inorganics           Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1 MJ/kg         0.0           Cyanide, Total         DETSC 2130#         0.1 mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	Molybdenum	DETSC 2301#	0.4	mg/kg	0.6
Vanadium         DETSC 2301#         0.8 mg/kg         27           Zinc         DETSC 2301#         1 mg/kg         110           Inorganics         Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	Nickel	DETSC 2301#	1	mg/kg	32
Zinc   DETSC 2301#   1 mg/kg   110	Silicon	DETSC 2301*	10	mg/kg	160000
Loss on Ignition at 440oC	Vanadium	DETSC 2301#	0.8	mg/kg	27
Loss on Ignition at 440oC         DETSC 2003#         0.01         %           pH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Zinc	DETSC 2301#	1	mg/kg	110
pH         DETSC 2008#         pH         7.8           Calorific Value         DETSC 5008         1         MJ/kg           Cyanide, Total         DETSC 2130#         0.1         mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1         mg/kg         < 0.1	Inorganics				
Calorific Value         DETSC 5008         1 MJ/kg           Cyanide, Total         DETSC 2130#         0.1 mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
Cyanide, Total         DETSC 2130#         0.1 mg/kg         0.9           Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1	рН	DETSC 2008#		рН	7.8
Cyanide, Free         DETSC 2130#         0.1 mg/kg         < 0.1           Thiocyanate         DETSC 2130#         0.6 mg/kg         < 0.6	Calorific Value	DETSC 5008	1	MJ/kg	
Thiocyanate         DETSC 2130#         0.6 mg/kg         < 0.6           Organic matter         DETSC 2002#         0.1 %         2.8           Sulphate Aqueous Extract as SO4         DETSC 2076#         10 mg/l         230	Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.9
Organic matter         DETSC 2002#         0.1         %         2.8           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         230	Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Organic matter         DETSC 2002#         0.1         %         2.8           Sulphate Aqueous Extract as SO4         DETSC 2076#         10         mg/l         230	Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Sulphate Aqueous Extract as SO4 DETSC 2076# 10 mg/l 230		DETSC 2002#	0.1		2.8
	Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	230
	Sulphur (free)	DETSC 3049#	0.75		< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675450
Sample ID	PRAIRIE_AUK_BH101_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	27/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	< 0.03
Fluorene	DETSC 3303	0.03	mg/kg	< 0.03
Phenanthrene	DETSC 3303#	0.03	mg/kg	< 0.03
Anthracene	DETSC 3303	0.03	mg/kg	< 0.03
Fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Chrysene	DETSC 3303	0.03	mg/kg	< 0.03
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675450
Sample ID	PRAIRIE_AUK_BH101_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	27/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675450
Sample ID	PRAIRIE_AUK_BH101_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	27/04/2020
Sampling Time	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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675451
Sample ID	PRAIRIE_AUK_BH107_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Asbestos Quantification	DETSC 1102	0.001	%	
Metals				
Aluminium	DETSC 2301*	1	mg/kg	18000
Antimony	DETSC 2301*	1	mg/kg	3.4
Arsenic	DETSC 2301#	0.2	mg/kg	12
Barium	DETSC 2301#	1.5	mg/kg	440
Beryllium	DETSC 2301#	0.2	mg/kg	2.3
Boron, Water Soluble	DETSC 2311#	0.2	mg/kg	0.9
Cadmium	DETSC 2301#	0.1	mg/kg	1.1
Chromium	DETSC 2301#	0.15	mg/kg	68
Chromium, Hexavalent	DETSC 2204*	1	mg/kg	< 1.0
Copper	DETSC 2301#	0.2	mg/kg	73
Iron	DETSC 2301	25	mg/kg	41000
Lead	DETSC 2301#	0.3	mg/kg	71
Magnesium	DETSC 2301*	1	mg/kg	6500
Manganese	DETSC 2301#	20	mg/kg	960
Mercury	DETSC 2325#	0.05	mg/kg	0.05
Molybdenum	DETSC 2301#	0.4	mg/kg	2.3
Nickel	DETSC 2301#	1	mg/kg	63
Silicon	DETSC 2301*	10	mg/kg	170000
Vanadium	DETSC 2301#	0.8	mg/kg	39
Zinc	DETSC 2301#	1	mg/kg	130
Inorganics				
Loss on Ignition at 440oC	DETSC 2003#	0.01	%	
рН	DETSC 2008#		рН	7.8
Calorific Value	DETSC 5008	1	MJ/kg	
Cyanide, Total	DETSC 2130#	0.1	mg/kg	0.3
Cyanide, Free	DETSC 2130#	0.1	mg/kg	< 0.1
Thiocyanate	DETSC 2130#	0.6	mg/kg	< 0.6
Organic matter	DETSC 2002#	0.1	%	2.3
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	130
Sulphur (free)	DETSC 3049#	0.75	mg/kg	< 0.75



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675451
Sample ID	PRAIRIE_AUK_BH107_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

<b>-</b> .		-		11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons		Г		
Aliphatic C5-C6	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C6-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aliphatic C10-C12	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C12-C16	DETSC 3072#	1.2	mg/kg	< 1.2
Aliphatic C16-C21	DETSC 3072#	1.5	mg/kg	< 1.5
Aliphatic C21-C35	DETSC 3072#	3.4	mg/kg	< 3.4
Aliphatic C5-C35	DETSC 3072*	10	mg/kg	< 10
Aromatic C5-C7	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C7-C8	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C8-C10	DETSC 3321*	0.01	mg/kg	< 0.01
Aromatic C10-C12	DETSC 3072#	0.9	mg/kg	< 0.9
Aromatic C12-C16	DETSC 3072#	0.5	mg/kg	< 0.5
Aromatic C16-C21	DETSC 3072#	0.6	mg/kg	< 0.6
Aromatic C21-C35	DETSC 3072#	1.4	mg/kg	< 1.4
Aromatic C5-C35	DETSC 3072*	10	mg/kg	< 10
TPH Ali/Aro Total	DETSC 3072*	10	mg/kg	< 10
EPH (C10-C40)	DETSC 3311#	10	mg/kg	
PAHs				
Naphthalene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthylene	DETSC 3303#	0.03	mg/kg	< 0.03
Acenaphthene	DETSC 3303#	0.03	mg/kg	0.11
Fluorene	DETSC 3303	0.03	mg/kg	0.10
Phenanthrene	DETSC 3303#	0.03	mg/kg	0.37
Anthracene	DETSC 3303	0.03	mg/kg	0.04
Fluoranthene	DETSC 3303#	0.03	mg/kg	0.27
Pyrene	DETSC 3303#	0.03	mg/kg	0.19
Benzo(a)anthracene	DETSC 3303#	0.03	mg/kg	0.06
Chrysene	DETSC 3303	0.03	mg/kg	0.09
Benzo(b)fluoranthene	DETSC 3303#	0.03	mg/kg	0.05
Benzo(k)fluoranthene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(a)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3303#	0.03	mg/kg	< 0.03



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675451
Sample ID	PRAIRIE_AUK_BH107_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
<b>Sampling Date</b>	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Dibenzo(a,h)anthracene	DETSC 3303#	0.03	mg/kg	< 0.03
Benzo(g,h,i)perylene	DETSC 3303#	0.03	mg/kg	< 0.03
PAH - USEPA 16, Total	DETSC 3303	0.1	mg/kg	1.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675451
Sample ID	PRAIRIE_AUK_BH107_SO_0300
Depth	3.00
Other ID	1
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	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



# **Summary of Chemical Analysis Soil VOC/SVOC Samples**

20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units		
VOCs					
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01	
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01	
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01	
Benzene	DETSC 3431	0.01	mg/kg	0.02	
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01	
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01	
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	
Toluene	DETSC 3431	0.01	mg/kg	0.03	
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01	
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01	
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01	
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01	
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01	
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01	
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01	
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01	
Ethylbenzene	DETSC 3431	0.01	mg/kg	0.03	
m+p-Xylene	DETSC 3431	0.01	mg/kg	0.15	
o-Xylene	DETSC 3431	0.01	mg/kg	0.08	
Styrene	DETSC 3431*	0.01	mg/kg	0.05	
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

		•	- 1	
Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.05
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.10
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs	•	•		
Phenol	DETSC 3433	0.1	mg/kg	3.8
Aniline	DETSC 3433*	0.1	mg/kg	0.5
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	2.7
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	5.3
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	4.7
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665134
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	80
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	500
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	0.3
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	32



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	0.3
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	0.4
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	0.2
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.6
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	1.0
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	1.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.10
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
Chloroform	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.10
Benzene	DETSC 3431	0.01	mg/kg	13
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	0.64
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.10
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.10
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Toluene	DETSC 3431	0.01	mg/kg	12
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.10
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Ethylbenzene	DETSC 3431	0.01	mg/kg	0.74
m+p-Xylene	DETSC 3431	0.01	mg/kg	11
o-Xylene	DETSC 3431	0.01	mg/kg	4.5
Styrene	DETSC 3431*	0.01	mg/kg	5.6
Bromoform	DETSC 3431	0.01	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	3.5
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	1.2
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	5.3
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
MTBE	DETSC 3431*	0.01	mg/kg	< 0.10
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	180
Aniline	DETSC 3433*	0.1	mg/kg	< 100.0
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 100.0
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 100.0
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 100.0
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 100.0
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	150
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 100.0
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 100.0
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 100.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665588
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 100.0
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 100.0
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	3000
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 100.0
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 100.0
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 100.0
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 100.0
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 100.0
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 100.0
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 100.0
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 100.0
Dibenzofuran	DETSC 3433	0.1	mg/kg	3300
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 100.0
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 100.0
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 100.0
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 100.0
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 100.0
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 100.0
Diphenylamine	DETSC 3433	0.1	mg/kg	< 100.0
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 100.0
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 100.0
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 100.0
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 100.0
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 100.0
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 100.0
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 100.0
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 100.0
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 100.0
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 100.0
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 100.0
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 100.0
Azobenzene	DETSC 3433	0.1	mg/kg	< 100.0
Carbazole	DETSC 3433*	0.1	mg/kg	2200



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	0.03
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	0.19
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	0.11
m+p-Xylene	DETSC 3431	0.01	mg/kg	4.5
o-Xylene	DETSC 3431	0.01	mg/kg	0.62
Styrene	DETSC 3431*	0.01	mg/kg	0.28
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

			sc	11/3
Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.53
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	0.21
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.83
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665610
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	64
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	49
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	2.6
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	0.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	•
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs		•		
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665611
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.3
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	0.2
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01
<u> </u>				



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

		Sampi	ing rime	n/s
Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665612
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.5
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	0.5
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.10
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
Chloroform	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.10
Benzene	DETSC 3431	0.01	mg/kg	2.9
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	0.14
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.10
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.10
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Toluene	DETSC 3431	0.01	mg/kg	5.0
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.10
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Ethylbenzene	DETSC 3431	0.01	mg/kg	2.3
m+p-Xylene	DETSC 3431	0.01	mg/kg	17
o-Xylene	DETSC 3431	0.01	mg/kg	8.1
Styrene	DETSC 3431*	0.01	mg/kg	5.1
Bromoform	DETSC 3431	0.01	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	7.0
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	2.9
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	10
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
MTBE	DETSC 3431*	0.01	mg/kg	< 0.10
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 1.0
Aniline	DETSC 3433*	0.1	mg/kg	< 1.0
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 1.0
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 1.0
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 1.0
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 1.0
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 1.0
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 1.0
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 1.0
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 1.0



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665613
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 1.0
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 1.0
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	1300
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 1.0
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 1.0
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 1.0
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 1.0
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 1.0
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 1.0
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 1.0
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 1.0
Dibenzofuran	DETSC 3433	0.1	mg/kg	820
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 1.0
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 1.0
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 1.0
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 1.0
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 1.0
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 1.0
Diphenylamine	DETSC 3433	0.1	mg/kg	< 1.0
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 1.0
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 1.0
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 1.0
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 1.0
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 1.0
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 1.0
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 1.0
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	72
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 1.0
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 1.0
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 1.0
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 1.0
Azobenzene	DETSC 3433	0.1	mg/kg	< 1.0
Carbazole	DETSC 3433*	0.1	mg/kg	38



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

1,1 Dichloroethylene         DETSC 3431         0.01         mg/kg           Trans-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           1,1-dichloroethane         DETSC 3431         0.01         mg/kg           Cis-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromomethane         DETSC 3431         0.01         mg/kg           Cis-1,3-dichloropropene         DETSC 3431         0.01         mg/kg	, 5
Vinyl Chloride         DETSC 3431         0.01         mg/kg           1,1 Dichloroethylene         DETSC 3431         0.01         mg/kg           Trans-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           1,1-dichloroethane         DETSC 3431         0.01         mg/kg           Cis-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromoethane         DETSC 3431         0.01         mg/kg	
1,1 Dichloroethylene         DETSC 3431         0.01         mg/kg           Trans-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           1,1-dichloroethane         DETSC 3431         0.01         mg/kg           Cis-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1-1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromomethane         DETSC 3431         0.01         mg/kg           cis-1,3-dichloropropene         DETSC 3431         0.01         mg/kg	
Trans-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           1,1-dichloroethane         DETSC 3431         0.01         mg/kg           Cis-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromodichloromethane         DETSC 3431         0.01         mg/kg           Cis-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg </td <td>0.01</td>	0.01
1,1-dichloroethane         DETSC 3431         0.01         mg/kg           Cis-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromomethane         DETSC 3431         0.01         mg/kg           Bromodichloromethane         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg           trans-1,3-dichloropropene         DETSC 3431         0.01         mg/kg <t< td=""><td>0.01</td></t<>	0.01
Cis-1,2-dichloroethylene         DETSC 3431         0.01         mg/kg           2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromodichloromethane         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg           trans-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           1,1,2-trichloroethane         DETSC 3431         0.01         mg/kg <td>0.01</td>	0.01
2,2-dichloropropane         DETSC 3431         0.01         mg/kg           Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromomethane         DETSC 3431         0.01         mg/kg           Bromodichloromethane         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg           1,1,2-trichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,3-d	0.01
Bromochloromethane         DETSC 3431         0.01         mg/kg           Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromomethane         DETSC 3431         0.01         mg/kg           Bromodichloromethane         DETSC 3431         0.01         mg/kg           cis-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           trans-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           1,1,2-trichloroethane         DETSC 3431         0.01         mg/kg           1,3-dichloropropane         DETSC 3431         0.01         mg/kg           1,3-dichloropropane         DETSC 3431         0.01         mg/kg	0.01
Chloroform         DETSC 3431         0.01         mg/kg           1,1,1-trichloroethane         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           1,1-dichloropropene         DETSC 3431         0.01         mg/kg           Carbon tetrachloride         DETSC 3431         0.01         mg/kg           Benzene         DETSC 3431         0.01         mg/kg           1,2-dichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromomethane         DETSC 3431         0.01         mg/kg           Bromodichloromethane         DETSC 3431         0.01         mg/kg           cis-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg           1,1,2-trichloroethane         DETSC 3431         0.01         mg/kg           1,2-dichloropropane         DETSC 3431         0.01         mg/kg           1,3-dichloropropane         DETSC 3431         0.01         mg/kg	0.01
1,1,1-trichloroethane DETSC 3431 0.01 mg/kg 1,1-dichloropropene DETSC 3431 0.01 mg/kg Carbon tetrachloride DETSC 3431 0.01 mg/kg Benzene DETSC 3431 0.01 mg/kg 1,2-dichloroethane DETSC 3431 0.01 mg/kg Trichloroethylene DETSC 3431 0.01 mg/kg 1,2-dichloropropane DETSC 3431 0.01 mg/kg Dibromomethane DETSC 3431 0.01 mg/kg Bromodichloromethane DETSC 3431 0.01 mg/kg Cis-1,3-dichloropropene DETSC 3431 0.01 mg/kg Toluene DETSC 3431 0.01 mg/kg	0.01
1,1-dichloropropene DETSC 3431 0.01 mg/kg Carbon tetrachloride DETSC 3431 0.01 mg/kg Benzene DETSC 3431 0.01 mg/kg 1,2-dichloroethane DETSC 3431 0.01 mg/kg Trichloroethylene DETSC 3431 0.01 mg/kg 1,2-dichloropropane DETSC 3431 0.01 mg/kg Dibromomethane DETSC 3431 0.01 mg/kg Dibromomethane DETSC 3431 0.01 mg/kg Bromodichloromethane DETSC 3431 0.01 mg/kg Cis-1,3-dichloropropene DETSC 3431 0.01 mg/kg Toluene DETSC 3431 0.01 mg/kg trans-1,3-dichloropropene DETSC 3431 0.01 mg/kg 1,1,2-trichloroethane DETSC 3431 0.01 mg/kg Tetrachloroethylene DETSC 3431 0.01 mg/kg Tetrachloropropene DETSC 3431 0.01 mg/kg Tetrachloroethylene DETSC 3431 0.01 mg/kg Toluene DETSC 3431 0.01 mg/kg Tetrachloroethylene DETSC 3431 0.01 mg/kg Tetrachloroethylene DETSC 3431 0.01 mg/kg Tetrachloropropane DETSC 3431 0.01 mg/kg Tetrachloropropane DETSC 3431 0.01 mg/kg Tetrachloropropane DETSC 3431 0.01 mg/kg Dibromochloromethane DETSC 3431 0.01 mg/kg DETSC 3431 0.01 mg/kg	0.01
Carbon tetrachloride  Benzene  DETSC 3431  D.01  mg/kg  1,2-dichloroethane  DETSC 3431  DE	0.01
Benzene DETSC 3431 0.01 mg/kg  1,2-dichloroethane DETSC 3431 0.01 mg/kg  Trichloroethylene DETSC 3431 0.01 mg/kg  1,2-dichloropropane DETSC 3431 0.01 mg/kg  Dibromomethane DETSC 3431 0.01 mg/kg  Bromodichloromethane DETSC 3431 0.01 mg/kg  cis-1,3-dichloropropene DETSC 3431 0.01 mg/kg  Toluene DETSC 3431 0.01 mg/kg  trans-1,3-dichloropropene DETSC 3431 0.01 mg/kg  trans-1,3-dichloropropene DETSC 3431 0.01 mg/kg  1,1,2-trichloroethane DETSC 3431 0.01 mg/kg  Tetrachloroethylene DETSC 3431 0.01 mg/kg  1,3-dichloropropane DETSC 3431 0.01 mg/kg  1,3-dichloropropane DETSC 3431 0.01 mg/kg  Dibromochloromethane DETSC 3431 0.01 mg/kg  1,2-dibromoethane DETSC 3431 0.01 mg/kg	0.01
1,2-dichloroethaneDETSC 34310.01mg/kgTrichloroethyleneDETSC 34310.01mg/kg1,2-dichloropropaneDETSC 34310.01mg/kgDibromomethaneDETSC 34310.01mg/kgBromodichloromethaneDETSC 34310.01mg/kgcis-1,3-dichloropropeneDETSC 34310.01mg/kgTolueneDETSC 34310.01mg/kgtrans-1,3-dichloropropeneDETSC 34310.01mg/kg1,1,2-trichloroethaneDETSC 34310.01mg/kgTetrachloroethyleneDETSC 34310.01mg/kg1,3-dichloropropaneDETSC 34310.01mg/kgDibromochloromethaneDETSC 34310.01mg/kg1,2-dibromoethaneDETSC 34310.01mg/kg	0.01
Trichloroethylene  1,2-dichloropropane  DETSC 3431  Dibromomethane  DETSC 3431  DETSC 3431	0.01
1,2-dichloropropane DETSC 3431 0.01 mg/kg Dibromomethane DETSC 3431 0.01 mg/kg Bromodichloromethane DETSC 3431 0.01 mg/kg cis-1,3-dichloropropene DETSC 3431 0.01 mg/kg Toluene DETSC 3431 0.01 mg/kg trans-1,3-dichloropropene DETSC 3431 0.01 mg/kg 1,1,2-trichloroethane DETSC 3431 0.01 mg/kg Tetrachloroethylene DETSC 3431 0.01 mg/kg 1,3-dichloropropane DETSC 3431 0.01 mg/kg Dibromochloromethane DETSC 3431 0.01 mg/kg 1,2-dibromoethane DETSC 3431 0.01 mg/kg	0.01
Dibromomethane  DETSC 3431  DE	0.01
Bromodichloromethane DETSC 3431 DETSC 3431 DOUT Mg/kg Cis-1,3-dichloropropene DETSC 3431 DOUT Mg/kg Toluene DETSC 3431 DOUT Mg/kg Trans-1,3-dichloropropene DETSC 3431 DOUT Mg/kg Tetrachloroethane DETSC 3431 DOUT Mg/kg Tetrachloroethylene DETSC 3431 DOUT Mg/kg Tetrachloropropane DETSC 3431 DOUT Mg/kg Dibromochloromethane DETSC 3431 DOUT Mg/kg	0.01
cis-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           Toluene         DETSC 3431         0.01         mg/kg           trans-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           1,1,2-trichloroethane         DETSC 3431         0.01         mg/kg           Tetrachloroethylene         DETSC 3431         0.01         mg/kg           1,3-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromochloromethane         DETSC 3431         0.01         mg/kg           1,2-dibromoethane         DETSC 3431         0.01         mg/kg	0.01
Toluene         DETSC 3431         0.01         mg/kg           trans-1,3-dichloropropene         DETSC 3431         0.01         mg/kg           1,1,2-trichloroethane         DETSC 3431         0.01         mg/kg           Tetrachloroethylene         DETSC 3431         0.01         mg/kg           1,3-dichloropropane         DETSC 3431         0.01         mg/kg           Dibromochloromethane         DETSC 3431         0.01         mg/kg           1,2-dibromoethane         DETSC 3431         0.01         mg/kg	0.01
trans-1,3-dichloropropene DETSC 3431 0.01 mg/kg 1,1,2-trichloroethane DETSC 3431 0.01 mg/kg Tetrachloroethylene DETSC 3431 0.01 mg/kg 1,3-dichloropropane DETSC 3431 0.01 mg/kg Dibromochloromethane DETSC 3431 0.01 mg/kg 1,2-dibromoethane DETSC 3431 0.01 mg/kg	0.01
1,1,2-trichloroethaneDETSC 34310.01mg/kgTetrachloroethyleneDETSC 34310.01mg/kg1,3-dichloropropaneDETSC 34310.01mg/kgDibromochloromethaneDETSC 34310.01mg/kg1,2-dibromoethaneDETSC 34310.01mg/kg	0.01
Tetrachloroethylene DETSC 3431 0.01 mg/kg  1,3-dichloropropane DETSC 3431 0.01 mg/kg Dibromochloromethane DETSC 3431 0.01 mg/kg  1,2-dibromoethane DETSC 3431 0.01 mg/kg	0.01
1,3-dichloropropaneDETSC 34310.01mg/kgDibromochloromethaneDETSC 34310.01mg/kg1,2-dibromoethaneDETSC 34310.01mg/kg	0.01
Dibromochloromethane DETSC 3431 0.01 mg/kg 1,2-dibromoethane DETSC 3431 0.01 mg/kg	0.01
1,2-dibromoethane DETSC 3431 0.01 mg/kg	0.01
·	0.01
Chlorobonzono DETCC 2424 0.01 mg/kg	0.01
Chlorobenzene DETSC 3431 0.01 mg/kg	0.01
1,1,1,2-tetrachloroethane DETSC 3431 0.01 mg/kg	0.01
Ethylbenzene DETSC 3431 0.01 mg/kg	0.01
m+p-Xylene DETSC 3431 0.01 mg/kg	0.01
	0.01
Styrene DETSC 3431* 0.01 mg/kg	0.01
Bromoform DETSC 3431 0.01 mg/kg	0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

		Sampi	ing rime	n/s
Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs	<u>.</u>			
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665990
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

		•	_	1.1/5
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	0.2
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

1,2,4-Trichlorobenzene			Jumpi	ing rillie	11/3
4-Chloro-3-methylphenol         DETSC 3433         0.1         mg/kg         0.2           2-Methylnaphthalene         DETSC 3433         0.1         mg/kg         0.2           Hexachlorocyclopentadiene         DETSC 3433*         0.1         mg/kg         < 0.3           2,4,6-Trichlorophenol         DETSC 3433*         0.1         mg/kg         < 0.3           2,4-5-Trichlorophenol         DETSC 3433*         0.1         mg/kg         < 0.3           2-Chloronaphthalene         DETSC 3433*         0.1         mg/kg         < 0.3           2-Nitroaniline         DETSC 3433*         0.1         mg/kg         < 0.3           3-Nitroaniline         DETSC 3433*         0.1         mg/kg         < 0.3           4-Nitrophenol         DETSC 3433*         0.1         mg/kg         < 0.3           3-Nitroaniline         DETSC 3433*         0.1         mg/kg         < 0.3           4-Nitrophenol         DETSC 3433*         0.1         mg/kg         < 0.3           10benzofuran         DETSC 3433*         0.1         mg/kg         < 0.3           2,3,4,6-Tetrachlorophenol         DETSC 3433*         0.1         mg/kg         < 0.3           4-Nitroaniline         DETSC 3433*         0.1 <th>Test</th> <th>Method</th> <th>LOD</th> <th>Units</th> <th></th>	Test	Method	LOD	Units	
2-Methylnaphthalene         DETSC 3433         0.1         mg/kg         0.2           Hexachlorocyclopentadiene         DETSC 3433*         0.1         mg/kg         < 0.3	1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
DETSC 3433*   0.1 mg/kg   < 0.1	4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol         DETSC 3433         0.1         mg/kg         < 0.1	2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.2
2,4,5-Trichlorophenol         DETSC 3433*         0.1         mg/kg         < 0.1	Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene         DETSC 3433         0.1         mg/kg         < 0.1	2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline         DETSC 3433*         0.1 mg/kg         < 0.1	2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene       DETSC 3433*       0.1       mg/kg       < 0.1	2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
3-Nitroaniline       DETSC 3433*       0.1       mg/kg       < 0.1	2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol       DETSC 3433*       0.1       mg/kg       < 0.1	2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran         DETSC 3433         0.1         mg/kg         140           2,6-Dinitrotoluene         DETSC 3433         0.1         mg/kg         < 0.1	3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene       DETSC 3433       0.1 mg/kg       < 0.1	4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol       DETSC 3433*       0.1 mg/kg       < 0.1	Dibenzofuran	DETSC 3433	0.1	mg/kg	140
Diethylphthalate         DETSC 3433         0.1 mg/kg         < 0.1           4-Chlorophenylphenylether         DETSC 3433*         0.1 mg/kg         < 0.1	2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether       DETSC 3433*       0.1 mg/kg       < 0.1	2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline       DETSC 3433*       0.1 mg/kg       < 0.1	Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol         DETSC 3433*         0.1         mg/kg         < 0.1	4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine         DETSC 3433         0.1         mg/kg         < 0.1           4-Bromophenylphenylether         DETSC 3433         0.1         mg/kg         < 0.1	4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Bromophenylphenylether         DETSC 3433         0.1 mg/kg         < 0.1	2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Hexachlorobenzene         DETSC 3433         0.1 mg/kg         < 0.1           Pentachlorophenol         DETSC 3433*         0.1 mg/kg         < 0.1	Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol         DETSC 3433*         0.1 mg/kg         < 0.1           Di-n-butylphthalate         DETSC 3433         0.1 mg/kg         < 0.1	4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-butylphthalate         DETSC 3433         0.1 mg/kg         < 0.1           Butylbenzylphthalate         DETSC 3433*         0.1 mg/kg         < 0.1	Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate         DETSC 3433*         0.1 mg/kg         < 0.1           Bis(2-ethylhexyl)phthalate         DETSC 3433         0.1 mg/kg         < 0.1	Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate         DETSC 3433         0.1 mg/kg         < 0.1           Di-n-octylphthalate         DETSC 3433         0.1 mg/kg         < 0.1	Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate         DETSC 3433         0.1 mg/kg         < 0.1           1,4-Dinitrobenzene         DETSC 3433*         0.1 mg/kg         < 0.1	Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene       DETSC 3433*       0.1 mg/kg       < 0.1	Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Dimethylphthalate         DETSC 3433         0.1 mg/kg         < 0.1           1,3-Dinitrobenzene         DETSC 3433*         0.1 mg/kg         < 0.1	Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene       DETSC 3433*       0.1 mg/kg       < 0.1	1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene       DETSC 3433*       0.1 mg/kg       < 0.1         2,3,5,6-Tetrachlorophenol       DETSC 3433*       0.1 mg/kg       < 0.1	Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol         DETSC 3433*         0.1 mg/kg         < 0.1           Azobenzene         DETSC 3433         0.1 mg/kg         < 0.1	1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene DETSC 3433 0.1 mg/kg < 0.1	1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
	2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Corborals DETCC 2422* 0.1 mg/kg	Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole DETSC 3433" U.1 mg/kg U.s	Carbazole	DETSC 3433*	0.1	mg/kg	0.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666344
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.10
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
Chloroform	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.10
Benzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.10
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.10
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Toluene	DETSC 3431	0.01	mg/kg	< 0.10
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.10
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
m+p-Xylene	DETSC 3431	0.01	mg/kg	0.27
o-Xylene	DETSC 3431	0.01	mg/kg	0.13
Styrene	DETSC 3431*	0.01	mg/kg	0.18
Bromoform	DETSC 3431	0.01	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.49
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.53
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
MTBE	DETSC 3431*	0.01	mg/kg	< 0.10
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

		Jumpi	ing rinne	11/3
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	830
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	210
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	1.0
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

		••••••		11/3
Test	Method	LOD	Units	-
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

		••	6	11/3
Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668123
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	21/04/2020
Sampling Time	n/s

	Sampling Time			n/s
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.2
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	0.9
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	0.5



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668135
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

		Jup.	ing rillie	11/3
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

				1.175
Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01
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20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668566
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

	Sampling Time			n/s
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	0.2
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	0.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668567
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668567
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668567
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

TestMethodLODUnits1,2,4-TrichlorobenzeneDETSC 34330.1mg/kg4-Chloro-3-methylphenolDETSC 34330.1mg/kg2-MethylnaphthaleneDETSC 34330.1mg/kgHexachlorocyclopentadieneDETSC 3433*0.1mg/kg2,4,6-TrichlorophenolDETSC 34330.1mg/kg2,4,5-TrichlorophenolDETSC 3433*0.1mg/kg2-ChloronaphthaleneDETSC 3433*0.1mg/kg2-NitroanilineDETSC 3433*0.1mg/kg2,4-DinitrotolueneDETSC 3433*0.1mg/kg3-NitroanilineDETSC 3433*0.1mg/kg4-NitrophenolDETSC 3433*0.1mg/kgDibenzofuranDETSC 34330.1mg/kg2,3,4,6-TetrachlorophenolDETSC 34330.1mg/kg2,3,4,6-TetrachlorophenolDETSC 34330.1mg/kgDiethylphthalateDETSC 34330.1mg/kg4-ChlorophenylphenyletherDETSC 3433*0.1mg/kg4-NitroanilineDETSC 3433*0.1mg/kg2-Methyl-4,6-DinitrophenolDETSC 3433*0.1mg/kgDiphenylamineDETSC 34330.1mg/kg4-BromophenylphenyletherDETSC 34330.1mg/kgHexachlorobenzeneDETSC 34330.1mg/kgPentachlorophenolDETSC 3433*0.1mg/kg	< 0.1 < 0.1 0.1 < 0.1 < 0.1 < 0.1 < 0.1
4-Chloro-3-methylphenolDETSC 34330.1mg/kg2-MethylnaphthaleneDETSC 34330.1mg/kgHexachlorocyclopentadieneDETSC 3433*0.1mg/kg2,4,6-TrichlorophenolDETSC 3433*0.1mg/kg2,4,5-TrichlorophenolDETSC 3433*0.1mg/kg2-ChloronaphthaleneDETSC 3433*0.1mg/kg2-NitroanilineDETSC 3433*0.1mg/kg2,4-DinitrotolueneDETSC 3433*0.1mg/kg3-NitroanilineDETSC 3433*0.1mg/kg4-NitrophenolDETSC 3433*0.1mg/kgDibenzofuranDETSC 34330.1mg/kg2,6-DinitrotolueneDETSC 34330.1mg/kg2,3,4,6-TetrachlorophenolDETSC 3433*0.1mg/kgDiethylphthalateDETSC 34330.1mg/kg4-ChlorophenylphenyletherDETSC 3433*0.1mg/kg4-NitroanilineDETSC 3433*0.1mg/kg2-Methyl-4,6-DinitrophenolDETSC 3433*0.1mg/kgDiphenylamineDETSC 34330.1mg/kg4-BromophenylphenyletherDETSC 34330.1mg/kgHexachlorobenzeneDETSC 34330.1mg/kg	< 0.1 0.1 < 0.1 < 0.1 < 0.1 < 0.1
2-Methylnaphthalene DETSC 3433 0.1 mg/kg Hexachlorocyclopentadiene DETSC 3433* 0.1 mg/kg 2,4,6-Trichlorophenol DETSC 3433* 0.1 mg/kg 2,4,5-Trichlorophenol DETSC 3433* 0.1 mg/kg 2-Chloronaphthalene DETSC 3433* 0.1 mg/kg 2-Nitroaniline DETSC 3433* 0.1 mg/kg 2-Nitroaniline DETSC 3433* 0.1 mg/kg 3-Nitroaniline DETSC 3433* 0.1 mg/kg 3-Nitroaniline DETSC 3433* 0.1 mg/kg 4-Nitrophenol DETSC 3433* 0.1 mg/kg Dibenzofuran DETSC 3433* 0.1 mg/kg 2,3,4,6-Tetrachlorophenol DETSC 3433* 0.1 mg/kg Diethylphthalate DETSC 3433* 0.1 mg/kg Diethylphthalate DETSC 3433* 0.1 mg/kg 2-Chlorophenylphenylether DETSC 3433* 0.1 mg/kg 4-Nitroaniline DETSC 3433* 0.1 mg/kg Diethylphthalate DETSC 3433* 0.1 mg/kg Diethylphthalate DETSC 3433* 0.1 mg/kg 4-Chlorophenylphenylether DETSC 3433* 0.1 mg/kg 4-Nitroaniline DETSC 3433* 0.1 mg/kg 4-Nitroaniline DETSC 3433* 0.1 mg/kg Diphenylamine DETSC 3433* 0.1 mg/kg Diphenylamine DETSC 3433 0.1 mg/kg Hexachlorobenzene DETSC 3433 0.1 mg/kg	0.1 < 0.1 < 0.1 < 0.1 < 0.1
Hexachlorocyclopentadiene  2,4,6-Trichlorophenol  DETSC 3433*  0.1 mg/kg  2,4,5-Trichlorophenol  DETSC 3433*  0.1 mg/kg  2-Chloronaphthalene  DETSC 3433*  DETSC	< 0.1 < 0.1 < 0.1 < 0.1
2,4,6-TrichlorophenolDETSC 34330.1mg/kg2,4,5-TrichlorophenolDETSC 3433*0.1mg/kg2-ChloronaphthaleneDETSC 3433*0.1mg/kg2-NitroanilineDETSC 3433*0.1mg/kg2,4-DinitrotolueneDETSC 3433*0.1mg/kg3-NitroanilineDETSC 3433*0.1mg/kg4-NitrophenolDETSC 3433*0.1mg/kgDibenzofuranDETSC 34330.1mg/kg2,6-DinitrotolueneDETSC 34330.1mg/kg2,3,4,6-TetrachlorophenolDETSC 3433*0.1mg/kgDiethylphthalateDETSC 3433*0.1mg/kg4-ChlorophenylphenyletherDETSC 3433*0.1mg/kg4-NitroanilineDETSC 3433*0.1mg/kg2-Methyl-4,6-DinitrophenolDETSC 3433*0.1mg/kgDiphenylamineDETSC 34330.1mg/kg4-BromophenylphenyletherDETSC 34330.1mg/kgHexachlorobenzeneDETSC 34330.1mg/kg	< 0.1 < 0.1 < 0.1
2,4,5-Trichlorophenol DETSC 3433* 0.1 mg/kg 2-Chloronaphthalene DETSC 3433 0.1 mg/kg 2-Nitroaniline DETSC 3433* 0.1 mg/kg 3-Nitroaniline DETSC 3433* 0.1 mg/kg 4-Nitrophenol DETSC 3433* 0.1 mg/kg Dibenzofuran DETSC 3433* 0.1 mg/kg 2,6-Dinitrotoluene DETSC 3433 0.1 mg/kg 2,3,4,6-Tetrachlorophenol DETSC 3433* 0.1 mg/kg Diethylphthalate DETSC 3433 0.1 mg/kg 4-Chlorophenylphenylether DETSC 3433 0.1 mg/kg 4-Nitroaniline DETSC 3433 0.1 mg/kg DETSC 3433 0.1 mg/kg DETSC 3433 0.1 mg/kg DETSC 3433 0.1 mg/kg 4-Chlorophenylphenylether DETSC 3433* 0.1 mg/kg 4-Nitroaniline DETSC 3433* 0.1 mg/kg Diphenylamine DETSC 3433* 0.1 mg/kg Diphenylamine DETSC 3433* 0.1 mg/kg DETSC 3433 0.1 mg/kg	< 0.1
2-Chloronaphthalene DETSC 3433* 0.1 mg/kg 2-Nitroaniline DETSC 3433* 0.1 mg/kg 2,4-Dinitrotoluene DETSC 3433* 0.1 mg/kg 3-Nitroaniline DETSC 3433* 0.1 mg/kg 4-Nitrophenol DETSC 3433* 0.1 mg/kg Dibenzofuran DETSC 3433* 0.1 mg/kg 2,6-Dinitrotoluene DETSC 3433 0.1 mg/kg 2,3,4,6-Tetrachlorophenol DETSC 3433* 0.1 mg/kg Diethylphthalate DETSC 3433* DETSC 3433 DETSC 343	< 0.1
2-Nitroaniline  2-Nitrotoluene  DETSC 3433*  0.1 mg/kg  3-Nitroaniline  DETSC 3433*  0.1 mg/kg  4-Nitrophenol  DETSC 3433*  0.1 mg/kg  Dibenzofuran  DETSC 3433*  0.1 mg/kg  Dibenzofuran  DETSC 3433  0.1 mg/kg  2,6-Dinitrotoluene  DETSC 3433  0.1 mg/kg  2,3,4,6-Tetrachlorophenol  DETSC 3433*  DIethylphthalate  DETSC 3433*  DETSC 3433*  DIethylphthalate  DETSC 3433*  DETSC 3433*  DIethylphthalate  DETSC 3433*  DETSC 3433  DETS	
2,4-Dinitrotoluene  DETSC 3433*  O.1 mg/kg  3-Nitroaniline  DETSC 3433*  O.1 mg/kg  4-Nitrophenol  DETSC 3433*  DETSC 3433*  O.1 mg/kg  Dibenzofuran  DETSC 3433  DETSC 3433  DETSC 3433  DETSC 3433  DETSC 3433  DETSC 3433  DETSC 3433*  DETSC 3433  DETSC	< 0.1
3-Nitroaniline DETSC 3433* 0.1 mg/kg  4-Nitrophenol DETSC 3433* 0.1 mg/kg  Dibenzofuran DETSC 3433 0.1 mg/kg  2,6-Dinitrotoluene DETSC 3433 0.1 mg/kg  2,3,4,6-Tetrachlorophenol DETSC 3433* 0.1 mg/kg  Diethylphthalate DETSC 3433 0.1 mg/kg  4-Chlorophenylphenylether DETSC 3433* DETSC 3433 DETSC 3434 D	
4-Nitrophenol         DETSC 3433*         0.1 mg/kg           Dibenzofuran         DETSC 3433         0.1 mg/kg           2,6-Dinitrotoluene         DETSC 3433         0.1 mg/kg           2,3,4,6-Tetrachlorophenol         DETSC 3433*         0.1 mg/kg           Diethylphthalate         DETSC 3433         0.1 mg/kg           4-Chlorophenylphenylether         DETSC 3433*         0.1 mg/kg           4-Nitroaniline         DETSC 3433*         0.1 mg/kg           2-Methyl-4,6-Dinitrophenol         DETSC 3433*         0.1 mg/kg           Diphenylamine         DETSC 3433         0.1 mg/kg           4-Bromophenylphenylether         DETSC 3433         0.1 mg/kg           Hexachlorobenzene         DETSC 3433         0.1 mg/kg	< 0.1
Dibenzofuran  DETSC 3433  O.1 mg/kg  2,6-Dinitrotoluene  DETSC 3433  O.1 mg/kg  2,3,4,6-Tetrachlorophenol  DETSC 3433*  Diethylphthalate  DETSC 3433*  DETSC 3433  DETS	< 0.1
2,6-DinitrotolueneDETSC 34330.1mg/kg2,3,4,6-TetrachlorophenolDETSC 3433*0.1mg/kgDiethylphthalateDETSC 34330.1mg/kg4-ChlorophenylphenyletherDETSC 3433*0.1mg/kg4-NitroanilineDETSC 3433*0.1mg/kg2-Methyl-4,6-DinitrophenolDETSC 3433*0.1mg/kgDiphenylamineDETSC 34330.1mg/kg4-BromophenylphenyletherDETSC 34330.1mg/kgHexachlorobenzeneDETSC 34330.1mg/kg	< 0.1
2,3,4,6-TetrachlorophenolDETSC 3433*0.1mg/kgDiethylphthalateDETSC 34330.1mg/kg4-ChlorophenylphenyletherDETSC 3433*0.1mg/kg4-NitroanilineDETSC 3433*0.1mg/kg2-Methyl-4,6-DinitrophenolDETSC 3433*0.1mg/kgDiphenylamineDETSC 34330.1mg/kg4-BromophenylphenyletherDETSC 34330.1mg/kgHexachlorobenzeneDETSC 34330.1mg/kg	0.3
Diethylphthalate DETSC 3433 D.1 mg/kg  4-Chlorophenylphenylether DETSC 3433* D.1 mg/kg  4-Nitroaniline DETSC 3433* DETSC 3433 DETSC 343	< 0.1
4-Chlorophenylphenylether  4-Chlorophenylphenylether  DETSC 3433*  0.1 mg/kg  4-Nitroaniline  DETSC 3433*  0.1 mg/kg  2-Methyl-4,6-Dinitrophenol  DETSC 3433*  0.1 mg/kg  Diphenylamine  DETSC 3433  0.1 mg/kg  4-Bromophenylphenylether  DETSC 3433  0.1 mg/kg  Hexachlorobenzene  DETSC 3433  0.1 mg/kg	< 0.1
4-Nitroaniline         DETSC 3433*         0.1 mg/kg           2-Methyl-4,6-Dinitrophenol         DETSC 3433*         0.1 mg/kg           Diphenylamine         DETSC 3433         0.1 mg/kg           4-Bromophenylphenylether         DETSC 3433         0.1 mg/kg           Hexachlorobenzene         DETSC 3433         0.1 mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol DETSC 3433* 0.1 mg/kg Diphenylamine DETSC 3433 0.1 mg/kg 4-Bromophenylphenylether DETSC 3433 0.1 mg/kg Hexachlorobenzene DETSC 3433 0.1 mg/kg	< 0.1
Diphenylamine DETSC 3433 0.1 mg/kg 4-Bromophenylphenylether DETSC 3433 0.1 mg/kg Hexachlorobenzene DETSC 3433 0.1 mg/kg	< 0.1
4-Bromophenylphenylether DETSC 3433 0.1 mg/kg Hexachlorobenzene DETSC 3433 0.1 mg/kg	< 0.1
Hexachlorobenzene DETSC 3433 0.1 mg/kg	< 0.1
5 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	< 0.1
Pentachlaronhanol DETSC 2422* 0.1 mg/kg	< 0.1
rentacino opineno Deliscistas   O.1 ing/kg	< 0.1
Di-n-butylphthalate DETSC 3433 0.1 mg/kg	< 0.1
Butylbenzylphthalate DETSC 3433* 0.1 mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate DETSC 3433 0.1 mg/kg	< 0.1
Di-n-octylphthalate DETSC 3433 0.1 mg/kg	< 0.1
1,4-Dinitrobenzene DETSC 3433* 0.1 mg/kg	< 0.1
Dimethylphthalate DETSC 3433 0.1 mg/kg	< 0.1
1,3-Dinitrobenzene DETSC 3433* 0.1 mg/kg	< 0.1
1,2-Dinitrobenzene DETSC 3433* 0.1 mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol DETSC 3433* 0.1 mg/kg	< 0.1
Azobenzene DETSC 3433 0.1 mg/kg	. 0 1
Carbazole DETSC 3433* 0.1 mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	0.02
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	1.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	0.6
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668569
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

	Sampling Time			Sampling Time	n/s
Test	Method	LOD	Units		
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1	
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1	
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1	
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1	
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1	
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1	
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1	
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1	
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1	
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1	
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1	
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1	
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1	
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1	
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1	
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1	
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1	
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1	
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1	
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	< 0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

		Sampi	ing rime	n/s
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.3
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	0.3
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

		Janipi	ilig i ililie	11/5
Test	Method	LOD	Units	-
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	< 0.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669251
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

	Sampling Time			n/s
Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	< 0.1
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	.,,5
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.10
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
Chloroform	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.10
Benzene	DETSC 3431	0.01	mg/kg	0.53
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.10
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.10
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Toluene	DETSC 3431	0.01	mg/kg	0.43
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.10
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Ethylbenzene	DETSC 3431	0.01	mg/kg	0.73
m+p-Xylene	DETSC 3431	0.01	mg/kg	1.1
o-Xylene	DETSC 3431	0.01	mg/kg	0.76
Styrene	DETSC 3431*	0.01	mg/kg	0.52
Bromoform	DETSC 3431	0.01	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	0.20
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	2.0
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	1.1
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	2.9
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	0.27
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	0.53
MTBE	DETSC 3431*	0.01	mg/kg	< 0.10
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	1.1
Aniline	DETSC 3433*	0.1	mg/kg	0.5
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	0.5
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	0.7
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	0.6
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670142
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	.,,5
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	660
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	590
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	5.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	.40
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.10
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
Chloroform	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.10
Benzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.10
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.10
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Toluene	DETSC 3431	0.01	mg/kg	< 0.10
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.10
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
m+p-Xylene	DETSC 3431	0.01	mg/kg	0.37
o-Xylene	DETSC 3431	0.01	mg/kg	0.33
Styrene	DETSC 3431*	0.01	mg/kg	0.32
Bromoform	DETSC 3431	0.01	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.49
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	0.27
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.62
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
MTBE	DETSC 3431*	0.01	mg/kg	< 0.10
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	1.1
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	0.3
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	0.5
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670143
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	75
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	82
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	3.6



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.01
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
Chloroform	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.01
Benzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.01
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.01
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
Toluene	DETSC 3431	0.01	mg/kg	< 0.01
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.01
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.01
Ethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
m+p-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
o-Xylene	DETSC 3431	0.01	mg/kg	< 0.01
Styrene	DETSC 3431*	0.01	mg/kg	0.01
Bromoform	DETSC 3431	0.01	mg/kg	< 0.01



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	-
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.01
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.01
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.01
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.01
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.01
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.01
MTBE	DETSC 3431*	0.01	mg/kg	< 0.01
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	0.3
Aniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis (2-chlorois opropyl) ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	< 0.1
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670144
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	.,,0
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	0.6
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	1.4
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	0.3



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
Sampling Date	30/04/2020
Sampling Time	n/s

		p		.,, =
Test	Method	LOD	Units	
VOCs				
Vinyl Chloride	DETSC 3431	0.01	mg/kg	< 0.10
1,1 Dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
Trans-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Cis-1,2-dichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
2,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Bromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
Chloroform	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
1,1-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Carbon tetrachloride	DETSC 3431	0.01	mg/kg	< 0.10
Benzene	DETSC 3431	0.01	mg/kg	0.13
1,2-dichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Trichloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromomethane	DETSC 3431	0.01	mg/kg	< 0.10
Bromodichloromethane	DETSC 3431	0.01	mg/kg	< 0.10
cis-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
Toluene	DETSC 3431	0.01	mg/kg	0.15
trans-1,3-dichloropropene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,2-trichloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Tetrachloroethylene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
Dibromochloromethane	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromoethane	DETSC 3431	0.01	mg/kg	< 0.10
Chlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,1,1,2-tetrachloroethane	DETSC 3431	0.01	mg/kg	< 0.10
Ethylbenzene	DETSC 3431	0.01	mg/kg	0.13
m+p-Xylene	DETSC 3431	0.01	mg/kg	0.33
o-Xylene	DETSC 3431	0.01	mg/kg	0.21
Styrene	DETSC 3431*	0.01	mg/kg	0.20
Bromoform	DETSC 3431	0.01	mg/kg	< 0.10



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
Sampling Date	30/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Isopropylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
Bromobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichloropropane	DETSC 3431	0.01	mg/kg	< 0.10
n-propylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
2-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3,5-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.37
4-chlorotoluene	DETSC 3431	0.01	mg/kg	< 0.10
Tert-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trimethylbenzene	DETSC 3431	0.01	mg/kg	0.42
sec-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
p-isopropyltoluene	DETSC 3431	0.01	mg/kg	< 0.10
1,3-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,4-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
n-butylbenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
1,2-dibromo-3-chloropropane	DETSC 3431	0.01	mg/kg	< 0.10
1,2,4-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
Hexachlorobutadiene	DETSC 3431	0.01	mg/kg	< 0.10
1,2,3-trichlorobenzene	DETSC 3431	0.01	mg/kg	< 0.10
MTBE	DETSC 3431*	0.01	mg/kg	< 0.10
SVOCs				
Phenol	DETSC 3433	0.1	mg/kg	1.4
Aniline	DETSC 3433*	0.1	mg/kg	0.2
2-Chlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
Benzyl Alcohol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylphenol	DETSC 3433	0.1	mg/kg	0.8
Bis(2-chloroisopropyl)ether	DETSC 3433	0.1	mg/kg	< 0.1
3&4-Methylphenol	DETSC 3433	0.1	mg/kg	1.2
2,4-Dimethylphenol	DETSC 3433	0.1	mg/kg	0.5
Bis-(dichloroethoxy)methane	DETSC 3433	0.1	mg/kg	< 0.1
2,4-Dichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670502
Sample ID	PRAIRIE_AUK_TP193_SO_0080
Depth	0.80
Other ID	1
Sample Type	ES
Sampling Date	30/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
1,2,4-Trichlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
4-Chloro-3-methylphenol	DETSC 3433	0.1	mg/kg	< 0.1
2-Methylnaphthalene	DETSC 3433	0.1	mg/kg	120
Hexachlorocyclopentadiene	DETSC 3433*	0.1	mg/kg	< 0.1
2,4,6-Trichlorophenol	DETSC 3433	0.1	mg/kg	< 0.1
2,4,5-Trichlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
2-Chloronaphthalene	DETSC 3433	0.1	mg/kg	< 0.1
2-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2,4-Dinitrotoluene	DETSC 3433*	0.1	mg/kg	< 0.1
3-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Dibenzofuran	DETSC 3433	0.1	mg/kg	230
2,6-Dinitrotoluene	DETSC 3433	0.1	mg/kg	< 0.1
2,3,4,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
4-Chlorophenylphenylether	DETSC 3433*	0.1	mg/kg	< 0.1
4-Nitroaniline	DETSC 3433*	0.1	mg/kg	< 0.1
2-Methyl-4,6-Dinitrophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Diphenylamine	DETSC 3433	0.1	mg/kg	< 0.1
4-Bromophenylphenylether	DETSC 3433	0.1	mg/kg	< 0.1
Hexachlorobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Pentachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Di-n-butylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
Butylbenzylphthalate	DETSC 3433*	0.1	mg/kg	< 0.1
Bis(2-ethylhexyl)phthalate	DETSC 3433	0.1	mg/kg	< 0.1
Di-n-octylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,4-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
Dimethylphthalate	DETSC 3433	0.1	mg/kg	< 0.1
1,3-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
1,2-Dinitrobenzene	DETSC 3433*	0.1	mg/kg	< 0.1
2,3,5,6-Tetrachlorophenol	DETSC 3433*	0.1	mg/kg	< 0.1
Azobenzene	DETSC 3433	0.1	mg/kg	< 0.1
Carbazole	DETSC 3433*	0.1	mg/kg	3.9



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665287	1665289	1665294
	PRAIRIE_AU	PRAIRIE_AUK_TP11	PRAIRIE_AUK_TP18
Sample ID	K_SW1	5_SO_0050	6_SO_0100
Depth	0.00	0.50	1.00
Other ID	1	9	4
Sample Type	EW	EW	EW
Sampling Date	09/04/2020	08/04/2020	07/04/2020
Sampling Time	n/s	n/s	n/s

		Junipin	sc	11/3	11/3	11/3
Test	Method	LOD	Units			
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l			
Antimony, Dissolved	DETSC 2306	0.17	ug/l			
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.6	4.3	6.7
Barium, Dissolved	DETSC 2306	0.26	ug/l			
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l			
Boron, Dissolved	DETSC 2306*	12	ug/l	370	170	370
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	0.14	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l			
Chromium, Total	DETSC 2306*	0.25	ug/l	7.9	110	6.4
Chromium, Hexavalent	DETSC 2203	7	ug/l			
Copper, Dissolved	DETSC 2306	0.4	ug/l	4.4	11	3.6
Iron, Dissolved	DETSC 2306	5.5	ug/l			
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.52	20	2.2
Magnesium, Dissolved	DETSC 2306	0.02	mg/l			
Manganese, Dissolved	DETSC 2306	0.22	ug/l	19	990	400
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	0.06	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l			
Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.1	4.7	2.9
Sodium, Dissolved	DETSC 2306	0.07	mg/l			
Vanadium, Dissolved	DETSC 2306	0.6	ug/l			
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.2	86	10
Inorganics			-			
рН	DETSC 2008		рН	6.8	10.9	7.2
Cyanide, Total	DETSC 2130	40	ug/l	< 40	71	410
Cyanide, Free	DETSC 2130	20	ug/l			
Thiocyanate	DETSC 2130	20	ug/l			
Dissolved Organic Carbon	DETSC 2085	2	mg/l	9.9	10	23
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015	0.54	5.6
Chloride	DETSC 2055	0.1	mg/l			
Nitrate as N	*	0.1	mg/l			
Nitrite as N	DETSC 2201	0.035	mg/l			
Salinity (Calculated)	DETSC 2017*	0.01	%			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665287	1665289	1665294
	PRAIRIE_AU	PRAIRIE_AUK_TP11	PRAIRIE_AUK_TP18
Sample ID	K_SW1	5_SO_0050	6_SO_0100
Depth	0.00	0.50	1.00
Other ID	1	9	4
Sample Type	EW	EW	EW
Sampling Date	09/04/2020	08/04/2020	07/04/2020
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
Silicate as SiO2	DETSC 2211*	0.1	mg/l			
Sulphate as SO4	DETSC 2055	0.1	mg/l	210	230	510
Sulphur (free)	DETSC 3049	84	ug/l			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665287	1665289	1665294
	PRAIRIE_AU	PRAIRIE_AUK_TP11	PRAIRIE_AUK_TP18
Sample ID	K_SW1	5_SO_0050	6_SO_0100
Depth	0.00	0.50	1.00
Other ID	1	9	4
Sample Type	EW	EW	EW
Sampling Date	09/04/2020	08/04/2020	07/04/2020
Sampling Time	n/s	n/s	n/s

Test	Method	LOD	Units			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	310
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	54
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	1.1
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	180
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	1200
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	1000
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	2800
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	280
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	44
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	110
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	1.6	3100
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	29	1200
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	150	240
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	180	5000
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	180	7800
EPH (C10-C40)	DETSC 3311	10	ug/l	220	1900	20000



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665287	1665289	1665294
	PRAIRIE_AU	PRAIRIE_AUK_TP11	PRAIRIE_AUK_TP18
Sample ID	K_SW1	5_SO_0050	6_SO_0100
Depth	0.00	0.50	1.00
Other ID	1	9	4
Sample Type	EW	EW	EW
Sampling Date	09/04/2020	08/04/2020	07/04/2020
Sampling Time	n/s	n/s	n/s

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Method	LOD	Units			
DETSC 3304	0.05	ug/l	0.06	0.18	690
DETSC 3304	0.01	ug/l	0.02	0.05	69
DETSC 3304	0.01	ug/l	0.03	1.3	690
DETSC 3304	0.01	ug/l	0.02	0.80	310
DETSC 3304	0.01	ug/l	0.18	2.8	210
DETSC 3304	0.01	ug/l	0.07	0.54	35
DETSC 3304	0.01	ug/l	0.50	2.3	28
DETSC 3304	0.01	ug/l	0.41	1.7	18
DETSC 3304	0.01	ug/l	0.19	0.55	3.4
DETSC 3304	0.01	ug/l	0.28	0.59	3.7
DETSC 3304	0.01	ug/l	0.44	0.83	4.5
DETSC 3304	0.01	ug/l	0.15	0.30	1.5
DETSC 3304	0.01	ug/l	0.22	0.56	2.4
DETSC 3304	0.01	ug/l	0.14	0.38	1.2
DETSC 3304	0.01	ug/l	0.05	0.11	< 1.00
DETSC 3304	0.01	ug/l	0.20	0.52	1.6
DETSC 3304	0.2	ug/l	3.0	14	2100
	·				
DETSC 2130	100	ug/l	< 100	< 100	3400
	DETSC 3304	DETSC 3304 0.05 DETSC 3304 0.01	DETSC 3304 0.05 ug/l DETSC 3304 0.01 ug/l	DETSC 3304         0.05         ug/l         0.06           DETSC 3304         0.01         ug/l         0.02           DETSC 3304         0.01         ug/l         0.03           DETSC 3304         0.01         ug/l         0.02           DETSC 3304         0.01         ug/l         0.07           DETSC 3304         0.01         ug/l         0.50           DETSC 3304         0.01         ug/l         0.41           DETSC 3304         0.01         ug/l         0.19           DETSC 3304         0.01         ug/l         0.28           DETSC 3304         0.01         ug/l         0.44           DETSC 3304         0.01         ug/l         0.15           DETSC 3304         0.01         ug/l         0.22           DETSC 3304         0.01         ug/l         0.14           DETSC 3304         0.01         ug/l         0.05           DETSC 3304         0.01         ug/l         0.20           DETSC 3304         0.01         ug/l         0.20           DETSC 3304         0.01         ug/l         0.20           DETSC 3304         0.01         ug/l         0.20	DETSC 3304   0.05   ug/l   0.06   0.18     DETSC 3304   0.01   ug/l   0.02   0.05     DETSC 3304   0.01   ug/l   0.03   1.3     DETSC 3304   0.01   ug/l   0.02   0.80     DETSC 3304   0.01   ug/l   0.18   2.8     DETSC 3304   0.01   ug/l   0.07   0.54     DETSC 3304   0.01   ug/l   0.50   2.3     DETSC 3304   0.01   ug/l   0.41   1.7     DETSC 3304   0.01   ug/l   0.19   0.55     DETSC 3304   0.01   ug/l   0.28   0.59     DETSC 3304   0.01   ug/l   0.44   0.83     DETSC 3304   0.01   ug/l   0.15   0.30     DETSC 3304   0.01   ug/l   0.15   0.30     DETSC 3304   0.01   ug/l   0.22   0.56     DETSC 3304   0.01   ug/l   0.14   0.38     DETSC 3304   0.01   ug/l   0.14   0.38     DETSC 3304   0.01   ug/l   0.05   0.11     DETSC 3304   0.01   ug/l   0.20   0.52     DETSC 3304   0.02   ug/l   3.0   14



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1671485	1671486
	PRAIRIE_AUK_BH102_	PRAIRIE_AUK_BH103_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
<b>Sampling Time</b>	n/s	n/s

		- Jup.		11/3	11/3
Test	Method	LOD	Units		
Metals					
Aluminium, Dissolved	DETSC 2306	10	ug/l	80	37
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.3	2.4
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.70	5.3
Barium, Dissolved	DETSC 2306	0.26	ug/l	1000	45
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	13	240
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	0.07
Calcium, Dissolved	DETSC 2306	0.09	mg/l	980	170
Chromium, Total	DETSC 2306*	0.25	ug/l	< 0.25	0.34
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.8	4.6
Iron, Dissolved	DETSC 2306	5.5	ug/l	17	170
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.49	0.48
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.14	15
Manganese, Dissolved	DETSC 2306	0.22	ug/l	6.5	390
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02	0.11
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	11	51
Nickel, Dissolved	DETSC 2306	0.5	ug/l	7.1	3.6
Sodium, Dissolved	DETSC 2306	0.07	mg/l	31	51
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	2.1	17
Zinc, Dissolved	DETSC 2306	1.3	ug/l	8.6	< 1.3
Inorganics		•			
рН	DETSC 2008		рН	12.5	9.2
Cyanide, Total	DETSC 2130	40	ug/l	< 40	100
Cyanide, Free	DETSC 2130	20	ug/l	< 20	86
Thiocyanate	DETSC 2130	20	ug/l	150	91
Dissolved Organic Carbon	DETSC 2085	2	mg/l	15	7.9
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	1.0	0.46
Chloride	DETSC 2055	0.1	mg/l	29	36
Nitrate as N	*	0.1	mg/l	0.29	0.29
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	0.049
Salinity (Calculated)	DETSC 2017*	0.01	%	3.3	0.5
•				•	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

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		Lab No	1671485	1671486
			PRAIRIE_AUK_BH102_	PRAIRIE_AUK_BH103_
	S	ample ID	GW_050520	GW_050520
		Depth		
		Other ID	100	100
	Sam	ple Type	EW	EW
	Samp	ling Date	05/05/2020	05/05/2020
	Sampl	ing Time	n/s	n/s
Method	LOD	Units		
DETSC 2211*	0.1	mg/l	2.0	12
DETSC 2055	0.1	mg/l	35	330
DETSC 3049	84	ug/l	< 84	< 84
	Method  DETSC 2211*  DETSC 2055	Samp   Samp   Samp   Samp     Method   LOD     DETSC 2211*   0.1   DETSC 2055   0.1	Lab No  Sample ID  Depth Other ID  Sample Type Sampling Date Sampling Time Method LOD Units  DETSC 2211* DETSC 2055 0.1 mg/l	Lab No



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

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Lab No	1671485	1671486
	PRAIRIE_AUK_BH102_	PRAIRIE_AUK_BH103_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Method	LOD	Units		
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	10	ug/l	< 10	< 10
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	10	ug/l	< 10	< 10
DETSC 3072*	10	ug/l	< 10	< 10
DETSC 3311	10	ug/l		
	DETSC 3322 DETSC 3322 DETSC 3322 DETSC 3072* DETSC 3072* DETSC 3072* DETSC 3072* DETSC 3072* DETSC 3072* DETSC 3322 DETSC 3322 DETSC 3322 DETSC 3072*	DETSC 3322	DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3072* 1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 1 ug/l DETSC 3072* 1 ug/l	DETSC 3322   O.1   ug/l   < 0.1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1671485	1671486
	PRAIRIE_AUK_BH102_	PRAIRIE_AUK_BH103_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

		Sampli	ng Time	n/s	n/s
Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	3.7	0.06
Acenaphthylene	DETSC 3304	0.01	ug/l	0.10	0.23
Acenaphthene	DETSC 3304	0.01	ug/l	4.4	0.87
Fluorene	DETSC 3304	0.01	ug/l	1.5	0.22
Phenanthrene	DETSC 3304	0.01	ug/l	1.8	0.07
Anthracene	DETSC 3304	0.01	ug/l	0.14	0.09
Fluoranthene	DETSC 3304	0.01	ug/l	0.24	0.27
Pyrene	DETSC 3304	0.01	ug/l	0.18	0.25
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.03	0.11
Chrysene	DETSC 3304	0.01	ug/l	0.03	0.11
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.03	0.24
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.01	0.06
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.02	0.12
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.02	0.21
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.04
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.02	0.20
PAH Total	DETSC 3304	0.2	ug/l	12	3.1
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1671487	1671488
	PRAIRIE_AUK_BH104_	PRAIRIE_AUK_BH105_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
<b>Sampling Time</b>	n/s	n/s

		- Jup		11/3	11/3
Test	Method	LOD	Units		
Metals					
Aluminium, Dissolved	DETSC 2306	10	ug/l	39	68
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.59	0.46
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.7	1.9
Barium, Dissolved	DETSC 2306	0.26	ug/l	87	42
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	410	310
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	99	220
Chromium, Total	DETSC 2306*	0.25	ug/l	2.9	2.6
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.7	< 0.4
Iron, Dissolved	DETSC 2306	5.5	ug/l	30	600
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.18	0.11
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	58	45
Manganese, Dissolved	DETSC 2306	0.22	ug/l	440	810
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.09	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	13	8.2
Nickel, Dissolved	DETSC 2306	0.5	ug/l	3.7	1.9
Sodium, Dissolved	DETSC 2306	0.07	mg/l	110	130
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.9	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	16	< 1.3
Inorganics					
рН	DETSC 2008		рН	8.2	7.9
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 40	< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l	2.2	12
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.17	0.030
Chloride	DETSC 2055	0.1	mg/l	85	51
Nitrate as N	*	0.1	mg/l	0.32	0.31
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	0.6	0.8



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-

08118, 20 - 08189, 20 - 08381, 20 - 09141, 20 -

Our Ref 09144,20-09146,20-09147,20-09149 Client Ref 4251

		Lab No	1671487	1671488
			PRAIRIE_AUK_BH104_	PRAIRIE_AUK_BH105_
		Sample ID	GW_050520	GW_050520
		Depth		
		Other ID	100	100
		Sample Type	EW	EW
		Sampling Date	05/05/2020	05/05/2020
		Sampling Time	n/s	n/s
t	Method	LOD Units		_

Test	Method	LOD	Units		
Silicate as SiO2	DETSC 2211*	0.1	mg/l	7.1	16
Sulphate as SO4	DETSC 2055	0.1	mg/l	310	640
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1671487	1671488
	PRAIRIE_AUK_BH104_	PRAIRIE_AUK_BH105_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
<b>Sampling Time</b>	n/s	n/s

Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	14	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	16	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	1.3	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	31	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	31	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l		



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1671487	1671488
	PRAIRIE_AUK_BH104_	PRAIRIE_AUK_BH105_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	4.3	0.08
Acenaphthylene	DETSC 3304	0.01	ug/l	1.1	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	22	0.10
Fluorene	DETSC 3304	0.01	ug/l	23	0.10
Phenanthrene	DETSC 3304	0.01	ug/l	44	0.21
Anthracene	DETSC 3304	0.01	ug/l	6.2	0.03
Fluoranthene	DETSC 3304	0.01	ug/l	4.5	0.04
Pyrene	DETSC 3304	0.01	ug/l	2.6	0.03
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.35	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.61	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.40	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.10	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.22	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.32	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.05	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.30	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	110	0.65
Phenols	<u>.</u>				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1671489	1671490
	PRAIRIE_AUK_BH107_	PRAIRIE_AUK_BH109_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
<b>Sampling Time</b>	n/s	n/s

Antimony, Dissolved DETSC 2306 0.17 ug/l 0.53 11 Arsenic, Dissolved DETSC 2306 0.16 ug/l 0.65 55 Barium, Dissolved DETSC 2306 0.26 ug/l 666 138 Beryllium, Dissolved DETSC 2306* 0.1 ug/l <0.1 <0.1 <0.0 Boron, Dissolved DETSC 2306* 0.1 ug/l <0.1 <0.0 Boron, Dissolved DETSC 2306* 0.1 ug/l <0.1 <0.0 Boron, Dissolved DETSC 2306* 0.20 ug/l 0.08 <0.0 Calcium, Dissolved DETSC 2306 0.09 mg/l 340 340 35 Chromium, Total DETSC 2306* 0.25 ug/l 41 11 Chromium, Hexavalent DETSC 2306 0.25 ug/l 41 11 Chromium, Hexavalent DETSC 2306 0.4 ug/l 0.7.0 <7 Copper, Dissolved DETSC 2306 0.9 ug/l 0.7.0 <7 Copper, Dissolved DETSC 2306 0.9 ug/l 0.00 0.0 Iron, Dissolved DETSC 2306 0.9 ug/l 0.00 0.0 Iron, Dissolved DETSC 2306 0.9 ug/l 0.00 0.0 Magnesium, Dissolved DETSC 2306 0.00 ug/l 0.00 0.0 Magnesium, Dissolved DETSC 2306 0.02 ug/l 0.00 0.0 Mangnese, Dissolved DETSC 2306 0.02 ug/l 0.00 0.0 Molybdenum, Dissolved DETSC 2306 0.02 ug/l 0.00 0.0 Molybdenum, Dissolved DETSC 2306 0.01 ug/l 0.00 0.0 Molybdenum, Dissolved DETSC 2306 0.01 ug/l 0.00 0.0 Molybdenum, Dissolved DETSC 2306 0.00 ug/l 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.					11/3	11/3
Aluminium, Dissolved DETSC 2306	Test	Method	LOD	Units		
Antimony, Dissolved         DETSC 2306         0.17         ug/l         0.53         1           Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.65         5           Barium, Dissolved         DETSC 2306*         0.26         ug/l         66         18           Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         < 0.1	Metals					
Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.65         5           Barium, Dissolved         DETSC 2306*         0.26         ug/l         66         18           Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         < 0.1	Aluminium, Dissolved	DETSC 2306	10	ug/l	33	260
Arsenic, Dissolved         DETSC 2306         0.16         ug/l         0.65         5           Barium, Dissolved         DETSC 2306*         0.26         ug/l         66         18           Beryllium, Dissolved         DETSC 2306*         0.1         ug/l         < 0.1	Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.53	1.2
Beryllium, Dissolved	Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.65	5.1
Boron, Dissolved	Barium, Dissolved	DETSC 2306	0.26	ug/l	66	180
Cadmium, Dissolved         DETSC 2306         0.03         ug/l         0.08         < 0.0           Calcium, Dissolved         DETSC 2306         0.09         mg/l         340         33           Chromium, Total         DETSC 2306*         0.25         ug/l         41         13           Chromium, Hexavalent         DETSC 2306*         0.25         ug/l         < 7.0	Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Calcium, Dissolved         DETSC 2306         0.09         mg/l         340         33           Chromium, Total         DETSC 2306*         0.25         ug/l         41         11           Chromium, Hexavalent         DETSC 2306*         0.25         ug/l         <7.0	Boron, Dissolved	DETSC 2306*	12	ug/l	150	86
Chromium, Total         DETSC 2306*         0.25         ug/l         41         11           Chromium, Hexavalent         DETSC 2203         7         ug/l         <7.0	Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.08	< 0.03
Chromium, Hexavalent         DETSC 2203         7         ug/l         <7.0         <7           Copper, Dissolved         DETSC 2306         0.4         ug/l         1.7         <0	Calcium, Dissolved	DETSC 2306	0.09	mg/l	340	38
Copper, Dissolved         DETSC 2306         0.4         ug/l         1.7         < 0           Iron, Dissolved         DETSC 2306         5.5         ug/l         60         16           Lead, Dissolved         DETSC 2306         0.09         ug/l         0.20         0.3           Magnesium, Dissolved         DETSC 2306         0.02         mg/l         88         1           Manganese, Dissolved         DETSC 2306         0.02         ug/l         290         8           Mercury, Dissolved         DETSC 2306         0.01         ug/l         <0.01	Chromium, Total	DETSC 2306*	0.25	ug/l	41	110
Iron, Dissolved	Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Lead, Dissolved         DETSC 2306         0.09         ug/l         0.20         0.1           Magnesium, Dissolved         DETSC 2306         0.02         mg/l         88         1           Manganese, Dissolved         DETSC 2306         0.22         ug/l         290         8           Mercury, Dissolved         DETSC 2306         0.01         ug/l         < 0.01	Copper, Dissolved	DETSC 2306	0.4	ug/l	1.7	< 0.4
Magnesium, Dissolved         DETSC 2306         0.02         mg/l         88         1           Manganese, Dissolved         DETSC 2306         0.22         ug/l         290         8           Mercury, Dissolved         DETSC 2306         0.01         ug/l         <0.01	Iron, Dissolved	DETSC 2306	5.5	ug/l	60	160
Manganese, Dissolved         DETSC 2306         0.22         ug/l         290         8           Mercury, Dissolved         DETSC 2306         0.01         ug/l         < 0.01	Lead, Dissolved	DETSC 2306	0.09	ug/l	0.20	0.15
Mercury, Dissolved         DETSC 2306         0.01         ug/l         < 0.01         0.3           Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         2.8         2           Nickel, Dissolved         DETSC 2306         0.5         ug/l         4.5         1           Sodium, Dissolved         DETSC 2306         0.07         mg/l         290         9           Vanadium, Dissolved         DETSC 2306         0.6         ug/l         < 0.6	Magnesium, Dissolved	DETSC 2306	0.02	mg/l	88	17
Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         2.8         2.8           Nickel, Dissolved         DETSC 2306         0.5         ug/l         4.5         1           Sodium, Dissolved         DETSC 2306         0.07         mg/l         290         9           Vanadium, Dissolved         DETSC 2306         0.6         ug/l         < 0.6	Manganese, Dissolved	DETSC 2306	0.22	ug/l	290	85
Nickel, Dissolved         DETSC 2306         0.5         ug/l         4.5         1           Sodium, Dissolved         DETSC 2306         0.07         mg/l         290         9           Vanadium, Dissolved         DETSC 2306         0.6         ug/l         <0.6	Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	0.33
Sodium, Dissolved         DETSC 2306         0.07         mg/l         290         9           Vanadium, Dissolved         DETSC 2306         0.6         ug/l         < 0.6	Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.8	23
Vanadium, Dissolved         DETSC 2306         0.6         ug/l         < 0.6         1           Zinc, Dissolved         DETSC 2306         1.3         ug/l         3.7         < 1	Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.5	1.2
Zinc, Dissolved         DETSC 2306         1.3         ug/l         3.7         < 1           Inorganics           pH         DETSC 2008         pH         7.6         7           Cyanide, Total         DETSC 2130         40         ug/l         < 40	Sodium, Dissolved	DETSC 2306	0.07	mg/l	290	99
DETSC 2008   DETSC 2008   DETSC 2008   DETSC 2008   DETSC 2130   A0   Ug/l   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40   < 40	Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6	1.2
pH         DETSC 2008         pH         7.6         7           Cyanide, Total         DETSC 2130         40         ug/l         < 40	Zinc, Dissolved	DETSC 2306	1.3	ug/l	3.7	< 1.3
Cyanide, Total         DETSC 2130         40         ug/l         < 40         < 4           Cyanide, Free         DETSC 2130         20         ug/l         < 20	Inorganics					
Cyanide, Free         DETSC 2130         20         ug/l         < 20         < 2           Thiocyanate         DETSC 2130         20         ug/l         < 40	рН	DETSC 2008		рН	7.6	7.9
Thiocyanate         DETSC 2130         20         ug/l         < 40         13           Dissolved Organic Carbon         DETSC 2085         2         mg/l         4.0         1           Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         < 0.015	Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Dissolved Organic Carbon         DETSC 2085         2         mg/l         4.0         1           Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         < 0.015	Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         < 0.015         0.4           Chloride         DETSC 2055         0.1         mg/l         130         8           Nitrate as N         *         0.1         mg/l         0.32         0.2           Nitrite as N         DETSC 2201         0.035         mg/l         < 0.035	Thiocyanate	DETSC 2130	20	ug/l	< 40	130
Chloride         DETSC 2055         0.1 mg/l         130         8           Nitrate as N         *         0.1 mg/l         0.32         0.2           Nitrite as N         DETSC 2201         0.035         mg/l         < 0.035	Dissolved Organic Carbon	DETSC 2085	2	mg/l	4.0	12
Nitrate as N         *         0.1         mg/l         0.32         0.2           Nitrite as N         DETSC 2201         0.035         mg/l         < 0.035	Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015	0.45
Nitrite as N DETSC 2201 0.035 mg/l < 0.035 < 0.03	Chloride	DETSC 2055	0.1	mg/l	130	83
5	Nitrate as N	*	0.1	mg/l	0.32	0.26
Salinity (Calculated) DETSC 2017* 0.01 % 1.4 0	Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
	Salinity (Calculated)	DETSC 2017*	0.01	%	1.4	0.4



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

contract ritle Traine Site Ground	in conganion v				
			Lab No	1671489	1671490
				PRAIRIE_AUK_BH107_	PRAIRIE_AUK_BH109_
		S	ample ID	GW_050520	GW_050520
	Depth				
	Other ID			100	100
	Sample Type			EW	EW
		Samp	ling Date	05/05/2020	05/05/2020
		Sampl	ing Time	n/s	n/s
Test	Method	LOD	Units		
Silicate as SiO2	DETSC 2211*	0.1	mg/l	10	8.1
Sulphate as SO4	DETSC 2055	0.1	mg/l	840	54
Sulphur (free)	DETSC 3049	84	ug/l	< 84	460



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671489	1671490
	PRAIRIE_AUK_BH107_	PRAIRIE_AUK_BH109_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	20
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	160
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	210
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	13
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	330
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	1200
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	230
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	2200
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	130
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	41
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	1200
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	4600
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	1100
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	140
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	7200
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	9400
EPH (C10-C40)	DETSC 3311	10	ug/l		



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Lab No	1671489	1671490
	PRAIRIE_AUK_BH107_	PRAIRIE_AUK_BH109_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

		Sampling Time			n/s
Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	4900
Acenaphthylene	DETSC 3304	0.01	ug/l	0.02	19
Acenaphthene	DETSC 3304	0.01	ug/l	0.48	1600
Fluorene	DETSC 3304	0.01	ug/l	0.01	540
Phenanthrene	DETSC 3304	0.01	ug/l	0.02	630
Anthracene	DETSC 3304	0.01	ug/l	0.01	55
Fluoranthene	DETSC 3304	0.01	ug/l	0.01	35
Pyrene	DETSC 3304	0.01	ug/l	0.02	21
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	6.4
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	5.9
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	5.8
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	2.6
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	2.8
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	2.6
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 1.00
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	2.6
PAH Total	DETSC 3304	0.2	ug/l	0.62	7800
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



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Lab No	1671899	1671900
	PRAIRIE_AUK_BH101S	PRAIRIE_AUK_BH101D
Sample ID	_GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Metals					
Aluminium, Dissolved	DETSC 2306	10	ug/l	710	110
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.76	0.76
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.4	2.3
Barium, Dissolved	DETSC 2306	0.26	ug/l	68	69
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	440	390
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	270	260
Chromium, Total	DETSC 2306*	0.25	ug/l	9.4	11
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.8	2.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	780	380
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.1	0.26
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	53	50
Manganese, Dissolved	DETSC 2306	0.22	ug/l	720	590
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02	0.02
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	30	33
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.1	3.7
Sodium, Dissolved	DETSC 2306	0.07	mg/l	320	310
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	2.4	1.3
Zinc, Dissolved	DETSC 2306	1.3	ug/l	6.7	3.9
Inorganics					
рН	DETSC 2008		рН	7.4	7.5
Cyanide, Total	DETSC 2130	40	ug/l	54	64
Cyanide, Free	DETSC 2130	20	ug/l	23	27
Thiocyanate	DETSC 2130	20	ug/l	120	130
Dissolved Organic Carbon	DETSC 2085	2	mg/l	6.6	6.8
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.80	0.82
Chloride	DETSC 2055	0.1	mg/l	240	230
Nitrate as N	*	0.1	mg/l	1.1	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	1.4	1.3



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DETSC 3049

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Sulphur (free)

Contract Title Prairie Site Ground Investigation Works

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			Lab No	1671899	1671900
					PRAIRIE_AUK_BH101D
		Sample ID			_GW_060520
			Depth		
		Other ID			100
		Sam	ple Type	EW	EW
		Sampl	ing Date	06/05/2020	06/05/2020
		Sampl	ing Time	n/s	n/s
Test	Method	LOD	Units		
Silicate as SiO2	DETSC 2211*	0.1	mg/l	10	9.6
Sulphate as SO4	DETSC 2055	0.1	mg/l	920	820

84

ug/l

< 84

< 84



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671899	1671900
	PRAIRIE_AUK_BH101S	PRAIRIE_AUK_BH101D
Sample ID	_GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Method	LOD	Units		
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	1	ug/l	< 1.0	< 1.0
DETSC 3072*	10	ug/l	< 10	< 10
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3322	0.1	ug/l	< 0.1	< 0.1
DETSC 3072*	1	ug/l	6.4	< 1.0
DETSC 3072*	1	ug/l	24	< 1.0
DETSC 3072*	1	ug/l	8.5	< 1.0
DETSC 3072*	1	ug/l	1.1	< 1.0
DETSC 3072*	10	ug/l	40	< 10
DETSC 3072*	10	ug/l	40	< 10
DETSC 3311	10	ug/l		
	DETSC 3322 DETSC 3322 DETSC 3072* DETSC 3322 DETSC 3322 DETSC 3072*	DETSC 3322 0.1 DETSC 3322 0.1 DETSC 3322 0.1 DETSC 3072* 1 DETSC 3072* 10 DETSC 3322 0.1 DETSC 3322 0.1 DETSC 3322 0.1 DETSC 3322 0.1 DETSC 3072* 1 DETSC 3072* 10 DETSC 3072* 10	DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3072* 1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3322 0.1 ug/l DETSC 3072* 1 ug/l	DETSC 3322



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1671899	1671900
	PRAIRIE_AUK_BH101S	PRAIRIE_AUK_BH101D
Sample ID	_GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	1.4	0.53
Acenaphthylene	DETSC 3304	0.01	ug/l	0.08	0.03
Acenaphthene	DETSC 3304	0.01	ug/l	3.5	1.3
Fluorene	DETSC 3304	0.01	ug/l	2.0	0.80
Phenanthrene	DETSC 3304	0.01	ug/l	2.7	1.0
Anthracene	DETSC 3304	0.01	ug/l	0.40	0.14
Fluoranthene	DETSC 3304	0.01	ug/l	0.46	0.17
Pyrene	DETSC 3304	0.01	ug/l	0.30	0.12
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.07	0.03
Chrysene	DETSC 3304	0.01	ug/l	0.09	0.02
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.09	0.03
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.02	0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.05	0.02
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.06	0.03
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.06	0.03
PAH Total	DETSC 3304	0.2	ug/l	11	4.3
Phenols	·			-	
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671901	1671902
	PRAIRIE_AUK_BH106_	PRAIRIE_AUK_BH108S
Sample ID	GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Metals					
Aluminium, Dissolved	DETSC 2306	10	ug/l	470	140
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.3	0.28
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	3.7	0.40
Barium, Dissolved	DETSC 2306	0.26	ug/l	110	46
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	140	230
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	140	940
Chromium, Total	DETSC 2306*	0.25	ug/l	57	26
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.2	0.9
Iron, Dissolved	DETSC 2306	5.5	ug/l	310	74
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.0	0.18
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	19	93
Manganese, Dissolved	DETSC 2306	0.22	ug/l	160	620
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.13	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	16	3.9
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.8	2.3
Sodium, Dissolved	DETSC 2306	0.07	mg/l	61	71
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	11	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	5.5	4.9
Inorganics					
рН	DETSC 2008		рН	8.5	7.6
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	46	< 40
Dissolved Organic Carbon	DETSC 2085	2	mg/l	24	< 2.0
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.98	0.17
Chloride	DETSC 2055	0.1	mg/l	28	41
Nitrate as N	*	0.1	mg/l	< 0.10	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	0.5	1.3



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Client Ref 4251

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		Lab No	1671901	1671902
			PRAIRIE_AUK_BH106_	PRAIRIE_AUK_BH108S
		Sample ID	GW_060520	_GW_060520
		Depth		
		Other ID	100	100
		Sample Type	EW	EW
		Sampling Date	06/05/2020	06/05/2020
		Sampling Time	n/s	n/s
it	Method	LOD Units	-	

Test	Method	LOD	Units		
Silicate as SiO2	DETSC 2211*	0.1	mg/l	11	9.1
Sulphate as SO4	DETSC 2055	0.1	mg/l	270	1300
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84



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Lab No	1671901	1671902
	PRAIRIE_AUK_BH106_	PRAIRIE_AUK_BH108S
Sample ID	GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l		



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Lab No	1671901	1671902
	PRAIRIE_AUK_BH106_	PRAIRIE_AUK_BH108S
Sample ID	GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	0.57	0.10
Acenaphthylene	DETSC 3304	0.01	ug/l	0.07	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	1.0	0.28
Fluorene	DETSC 3304	0.01	ug/l	0.85	0.21
Phenanthrene	DETSC 3304	0.01	ug/l	1.0	0.32
Anthracene	DETSC 3304	0.01	ug/l	0.09	0.04
Fluoranthene	DETSC 3304	0.01	ug/l	0.13	0.05
Pyrene	DETSC 3304	0.01	ug/l	0.09	0.03
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.02	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.04	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.04	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.02	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.02	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.04	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.05	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	4.1	1.1
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671903	1671904
	PRAIRIE_AUK_BH108D	PRAIRIE_AUK_BH110_
Sample ID	_GW_060520	GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Metals					
Aluminium, Dissolved	DETSC 2306	10	ug/l	170	52
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.29	0.69
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.40	1.2
Barium, Dissolved	DETSC 2306	0.26	ug/l	46	58
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	230	520
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	930	790
Chromium, Total	DETSC 2306*	0.25	ug/l	30	4.5
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.8	3.1
Iron, Dissolved	DETSC 2306	5.5	ug/l	73	40
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.09	0.44
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	90	84
Manganese, Dissolved	DETSC 2306	0.22	ug/l	590	180
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	0.04
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	3.8	17
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.2	2.6
Sodium, Dissolved	DETSC 2306	0.07	mg/l	70	220
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6	0.9
Zinc, Dissolved	DETSC 2306	1.3	ug/l	5.8	8.7
Inorganics	•				
рН	DETSC 2008		рН	7.5	7.6
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 40	94
Dissolved Organic Carbon	DETSC 2085	2	mg/l	< 2.0	< 2.0
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.18	0.32
Chloride	DETSC 2055	0.1	mg/l	35	81
Nitrate as N	*	0.1	mg/l	< 0.10	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	1.3	1.5



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		Lab No	1671903	1671904
			PRAIRIE_AUK_BH108D	PRAIRIE_AUK_BH110_
		Sample ID	_GW_060520	GW_060520
		Depth		
		Other ID	100	100
		Sample Type	EW	EW
		Sampling Date	06/05/2020	06/05/2020
		Sampling Time	n/s	n/s
est	Method	LOD Units		

Test	Method	LOD	Units		
Silicate as SiO2	DETSC 2211*	0.1	mg/l	9.0	9.4
Sulphate as SO4	DETSC 2055	0.1	mg/l	1100	1500
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671903	1671904
	PRAIRIE_AUK_BH108D	PRAIRIE_AUK_BH110_
Sample ID	_GW_060520	GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l		



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671903	1671904
	PRAIRIE_AUK_BH108D	PRAIRIE_AUK_BH110_
Sample ID	_GW_060520	GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
<b>Sampling Time</b>	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	0.10	0.06
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	0.03
Acenaphthene	DETSC 3304	0.01	ug/l	0.19	0.46
Fluorene	DETSC 3304	0.01	ug/l	0.14	0.27
Phenanthrene	DETSC 3304	0.01	ug/l	0.20	0.31
Anthracene	DETSC 3304	0.01	ug/l	0.03	0.04
Fluoranthene	DETSC 3304	0.01	ug/l	0.04	0.06
Pyrene	DETSC 3304	0.01	ug/l	0.03	0.04
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.01
Chrysene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.02	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.02	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.03	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	0.85	1.3
Phenols	<u> </u>				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671485	1671486
	PRAIRIE_AUK_BH102_	PRAIRIE_AUK_BH103_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1



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Lab No	1671485	1671486
	PRAIRIE_AUK_BH102_	PRAIRIE_AUK_BH103_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1



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Lab No	1671487	1671488
	PRAIRIE_AUK_BH104_	PRAIRIE_AUK_BH105_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1



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Lab No	1671487	1671488
	PRAIRIE_AUK_BH104_	PRAIRIE_AUK_BH105_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671489	1671490
	PRAIRIE_AUK_BH107_	PRAIRIE_AUK_BH109_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

		Jumpi	ing inne	11/3	11/3
Test	Method	LOD	Units		
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	7
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	48
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671489	1671490
	PRAIRIE_AUK_BH107_	PRAIRIE_AUK_BH109_
Sample ID	GW_050520	GW_050520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	05/05/2020	05/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	11
m+p-Xylene	DETSC 3432	2	ug/l	< 2	77
o-Xylene	DETSC 3432	1	ug/l	< 1	30
Styrene	DETSC 3432	1	ug/l	< 1	4
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	2
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	14
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	34
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671899	1671900
	PRAIRIE_AUK_BH101S	PRAIRIE_AUK_BH101D
Sample ID	_GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671899	1671900
	PRAIRIE_AUK_BH101S	PRAIRIE_AUK_BH101D
Sample ID	_GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	64	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671901	1671902
	PRAIRIE_AUK_BH106_	PRAIRIE_AUK_BH108S
Sample ID	GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

		Juinpii	ing rillie	11/3	11/3
Test	Method	LOD	Units		
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671901	1671902
	PRAIRIE_AUK_BH106_	PRAIRIE_AUK_BH108S
Sample ID	GW_060520	_GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671903	1671904
	PRAIRIE_AUK_BH108D	PRAIRIE_AUK_BH110_
Sample ID	_GW_060520	GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
Sampling Date	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	< 1	< 1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Lab No	1671903	1671904
	PRAIRIE_AUK_BH108D	PRAIRIE_AUK_BH110_
Sample ID	_GW_060520	GW_060520
Depth		
Other ID	100	100
Sample Type	EW	EW
<b>Sampling Date</b>	06/05/2020	06/05/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665143
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			Υ
Leachate 2:1 250g Non-WAC	DETSC 1009*			
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.32
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.88
Barium, Dissolved	DETSC 2306	0.26	ug/l	7.9
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	47
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.42
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	21
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.45
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	2.1
Manganese, Dissolved	DETSC 2306	0.22	ug/l	52
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.5
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	1.6
Inorganics			=	
рН	DETSC 2008		рН	8.2
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	1.6
Chloride	DETSC 2055	0.1	mg/l	6.5
Sulphate as SO4	DETSC 2055	0.1	mg/l	11



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665143
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	_
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	110
Aromatic C16-C21	DETSC 3072*	1	ug/l	22
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	130
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	130
EPH (C10-C40)	DETSC 3311	10	ug/l	9300



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665143
Sample ID	PRAIRIE_AUK_TP175_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	890
Acenaphthylene	DETSC 3304	0.01	ug/l	86
Acenaphthene	DETSC 3304	0.01	ug/l	910
Fluorene	DETSC 3304	0.01	ug/l	380
Phenanthrene	DETSC 3304	0.01	ug/l	360
Anthracene	DETSC 3304	0.01	ug/l	57
Fluoranthene	DETSC 3304	0.01	ug/l	66
Pyrene	DETSC 3304	0.01	ug/l	41
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	24
Chrysene	DETSC 3304	0.01	ug/l	20
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	27
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	9.7
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	19
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	15
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	3.0
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	9.5
PAH Total	DETSC 3304	0.2	ug/l	2900
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

N/04b0d

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665582
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.55
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.8
Barium, Dissolved	DETSC 2306	0.26	ug/l	27
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	75
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	43
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	< 5.5
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.72
Manganese, Dissolved	DETSC 2306	0.22	ug/l	1.8
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	7.3
Nickel, Dissolved	DETSC 2306	0.5	ug/l	3.9
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	22
Zinc, Dissolved	DETSC 2306	1.3	ug/l	< 1.3
Inorganics				
рН	DETSC 2008		рН	10.4
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015
Chloride	DETSC 2055	0.1	mg/l	10
Sulphate as SO4	DETSC 2055	0.1	mg/l	72



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665582
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	10
Aromatic C12-C16	DETSC 3072*	1	ug/l	260
Aromatic C16-C21	DETSC 3072*	1	ug/l	65
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	340
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	340
EPH (C10-C40)	DETSC 3311	10	ug/l	66



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665582
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	ES
Sampling Date	06/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.17
Acenaphthylene	DETSC 3304	0.01	ug/l	0.11
Acenaphthene	DETSC 3304	0.01	ug/l	0.12
Fluorene	DETSC 3304	0.01	ug/l	0.06
Phenanthrene	DETSC 3304	0.01	ug/l	0.13
Anthracene	DETSC 3304	0.01	ug/l	0.09
Fluoranthene	DETSC 3304	0.01	ug/l	0.40
Pyrene	DETSC 3304	0.01	ug/l	0.35
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.24
Chrysene	DETSC 3304	0.01	ug/l	0.31
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.65
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.23
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.36
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.33
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.05
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.27
PAH Total	DETSC 3304	0.2	ug/l	3.9
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665595
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETSC 1009*				
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y	
Metals					
Antimony, Dissolved	DETSC 2306	0.17	ug/l	2.9	
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	5.7	
Barium, Dissolved	DETSC 2306	0.26	ug/l	2.3	
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	
Boron, Dissolved	DETSC 2306*	12	ug/l	63	
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25	
Chromium, Total	DETSC 2306*	0.25	ug/l		
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.2	
Iron, Dissolved	DETSC 2306	5.5	ug/l	52	
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.85	
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.34	
Manganese, Dissolved	DETSC 2306	0.22	ug/l	10	
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	5.2	
Nickel, Dissolved	DETSC 2306	0.5	ug/l	0.6	
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	21	
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.3	
Inorganics					
рН	DETSC 2008		рН	8.5	
Cyanide, Total	DETSC 2130	40	ug/l	< 40	
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.029	
Chloride	DETSC 2055	0.1	mg/l	6.5	
Sulphate as SO4	DETSC 2055	0.1	mg/l	6.7	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665595
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

		•	~	•
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 10.0
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 10.0
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 10.0
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	30
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 10.0
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 10.0
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 10.0
Aromatic C10-C12	DETSC 3072*	1	ug/l	3000
Aromatic C12-C16	DETSC 3072*	1	ug/l	410
Aromatic C16-C21	DETSC 3072*	1	ug/l	180
Aromatic C21-C35	DETSC 3072*	1	ug/l	51
Aromatic C5-C35	DETSC 3072*	10	ug/l	3700
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	3700
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665595
Sample ID	PRAIRIE_AUK_TP114_SO_0090
Depth	0.90
Other ID	6
Sample Type	ES
Sampling Date	07/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	10000
Acenaphthylene	DETSC 3304	0.01	ug/l	390
Acenaphthene	DETSC 3304	0.01	ug/l	30
Fluorene	DETSC 3304	0.01	ug/l	88
Phenanthrene	DETSC 3304	0.01	ug/l	200
Anthracene	DETSC 3304	0.01	ug/l	32
Fluoranthene	DETSC 3304	0.01	ug/l	45
Pyrene	DETSC 3304	0.01	ug/l	34
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	9.6
Chrysene	DETSC 3304	0.01	ug/l	8.8
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	12
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	4.6
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	8.6
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	5.7
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	5.6
PAH Total	DETSC 3304	0.2	ug/l	11000
Phenols		•		
Phenol - Monohydric	DETSC 2130	100	ug/l	2600



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665614
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.18
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.9
Barium, Dissolved	DETSC 2306	0.26	ug/l	70
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	91
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	80
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	14
Manganese, Dissolved	DETSC 2306	0.22	ug/l	890
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.0
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.6
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	5.3
Inorganics				
рН	DETSC 2008		рН	7.1
Cyanide, Total	DETSC 2130	40	ug/l	67
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.20
Chloride	DETSC 2055	0.1	mg/l	4.5
Sulphate as SO4	DETSC 2055	0.1	mg/l	37



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665614
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

		•	~	•
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 1.0
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 1.0
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 1.0
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 1.0
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 1.0
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 1.0
Aromatic C10-C12	DETSC 3072*	1	ug/l	480
Aromatic C12-C16	DETSC 3072*	1	ug/l	370
Aromatic C16-C21	DETSC 3072*	1	ug/l	18
Aromatic C21-C35	DETSC 3072*	1	ug/l	13
Aromatic C5-C35	DETSC 3072*	10	ug/l	880
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	880
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665614
Sample ID	PRAIRIE_AUK_TP179_SO_0140
Depth	1.40
Other ID	4
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	2300
Acenaphthylene	DETSC 3304	0.01	ug/l	32
Acenaphthene	DETSC 3304	0.01	ug/l	490
Fluorene	DETSC 3304	0.01	ug/l	78
Phenanthrene	DETSC 3304	0.01	ug/l	16
Anthracene	DETSC 3304	0.01	ug/l	1.2
Fluoranthene	DETSC 3304	0.01	ug/l	1.2
Pyrene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 1.00
Chrysene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 1.00
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 1.00
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 1.00
PAH Total	DETSC 3304	0.2	ug/l	2900
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

N/04b0d

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665615
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	< 0.17
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.89
Barium, Dissolved	DETSC 2306	0.26	ug/l	6.0
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	100
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.79
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.7
Iron, Dissolved	DETSC 2306	5.5	ug/l	1700
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.2
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.9
Manganese, Dissolved	DETSC 2306	0.22	ug/l	28
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.3
Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.1
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.3
Zinc, Dissolved	DETSC 2306	1.3	ug/l	3.3
Inorganics				
рН	DETSC 2008		рН	7.5
Cyanide, Total	DETSC 2130	40	ug/l	41
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	1.2
Chloride	DETSC 2055	0.1	mg/l	2.1
Sulphate as SO4	DETSC 2055	0.1	mg/l	180



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665615
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665615
Sample ID	PRAIRIE_AUK_TP179_SO_0200
Depth	2.00
Other ID	7
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	50
Acenaphthylene	DETSC 3304	0.01	ug/l	3.4
Acenaphthene	DETSC 3304	0.01	ug/l	47
Fluorene	DETSC 3304	0.01	ug/l	7.5
Phenanthrene	DETSC 3304	0.01	ug/l	2.1
Anthracene	DETSC 3304	0.01	ug/l	0.51
Fluoranthene	DETSC 3304	0.01	ug/l	0.41
Pyrene	DETSC 3304	0.01	ug/l	0.25
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.10
Chrysene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.10
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.10
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.10
PAH Total	DETSC 3304	0.2	ug/l	110
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665616
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.47
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	4.2
Barium, Dissolved	DETSC 2306	0.26	ug/l	5.6
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	21
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.93
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	5.6
Iron, Dissolved	DETSC 2306	5.5	ug/l	94
Lead, Dissolved	DETSC 2306	0.09	ug/l	4.2
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.7
Manganese, Dissolved	DETSC 2306	0.22	ug/l	6.2
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.2
Nickel, Dissolved	DETSC 2306	0.5	ug/l	0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	2.4
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.0
Inorganics	<u>.</u>			
рН	DETSC 2008		рН	8.3
Cyanide, Total	DETSC 2130	40	ug/l	46
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.022
Chloride	DETSC 2055	0.1	mg/l	5.7
Sulphate as SO4	DETSC 2055	0.1	mg/l	27



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665616
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665616
Sample ID	PRAIRIE_AUK_TP181_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
<b>Sampling Date</b>	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	1.7
Acenaphthylene	DETSC 3304	0.01	ug/l	9.0
Acenaphthene	DETSC 3304	0.01	ug/l	3.3
Fluorene	DETSC 3304	0.01	ug/l	1.9
Phenanthrene	DETSC 3304	0.01	ug/l	4.2
Anthracene	DETSC 3304	0.01	ug/l	3.3
Fluoranthene	DETSC 3304	0.01	ug/l	4.3
Pyrene	DETSC 3304	0.01	ug/l	4.4
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	2.1
Chrysene	DETSC 3304	0.01	ug/l	3.9
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	8.1
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	2.8
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	4.4
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	7.1
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	1.7
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	8.0
PAH Total	DETSC 3304	0.2	ug/l	70
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665617
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.33
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	3.6
Barium, Dissolved	DETSC 2306	0.26	ug/l	6.5
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	73
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.57
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	< 0.4
Iron, Dissolved	DETSC 2306	5.5	ug/l	480
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	3.3
Manganese, Dissolved	DETSC 2306	0.22	ug/l	86
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.7
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	< 1.3
Inorganics				
рН	DETSC 2008		рН	7.6
Cyanide, Total	DETSC 2130	40	ug/l	1100
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.071
Chloride	DETSC 2055	0.1	mg/l	3.0
Sulphate as SO4	DETSC 2055	0.1	mg/l	18



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665617
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 1.0
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 1.0
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	820
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	820
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 1.0
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 1.0
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 1.0
Aromatic C10-C12	DETSC 3072*	1	ug/l	3400
Aromatic C12-C16	DETSC 3072*	1	ug/l	3500
Aromatic C16-C21	DETSC 3072*	1	ug/l	610
Aromatic C21-C35	DETSC 3072*	1	ug/l	180
Aromatic C5-C35	DETSC 3072*	10	ug/l	7700
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	8500
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665617
Sample ID	PRAIRIE_AUK_TP182_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	09/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	11000
Acenaphthylene	DETSC 3304	0.01	ug/l	190
Acenaphthene	DETSC 3304	0.01	ug/l	1100
Fluorene	DETSC 3304	0.01	ug/l	290
Phenanthrene	DETSC 3304	0.01	ug/l	170
Anthracene	DETSC 3304	0.01	ug/l	35
Fluoranthene	DETSC 3304	0.01	ug/l	24
Pyrene	DETSC 3304	0.01	ug/l	14
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	2.8
Chrysene	DETSC 3304	0.01	ug/l	3.1
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	2.4
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	1.1
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	1.3
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 1.00
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 1.00
PAH Total	DETSC 3304	0.2	ug/l	13000
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1665996
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	2.2
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	3.9
Barium, Dissolved	DETSC 2306	0.26	ug/l	26
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	170
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	1.1
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	4.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	50
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.26
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	4.6
Manganese, Dissolved	DETSC 2306	0.22	ug/l	7.6
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	7.9
Nickel, Dissolved	DETSC 2306	0.5	ug/l	0.7
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	26
Zinc, Dissolved	DETSC 2306	1.3	ug/l	< 1.3
Inorganics				
рН	DETSC 2008		рН	8.7
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015
Chloride	DETSC 2055	0.1	mg/l	3.0
Sulphate as SO4	DETSC 2055	0.1	mg/l	55



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665996
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665996
Sample ID	PRAIRIE_AUK_TP145_SO_0160
Depth	1.60
Other ID	4
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

		Jumpii		11/3
Test	Method	LOD	Units	_
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.78
Acenaphthylene	DETSC 3304	0.01	ug/l	0.16
Acenaphthene	DETSC 3304	0.01	ug/l	0.40
Fluorene	DETSC 3304	0.01	ug/l	0.26
Phenanthrene	DETSC 3304	0.01	ug/l	0.95
Anthracene	DETSC 3304	0.01	ug/l	0.31
Fluoranthene	DETSC 3304	0.01	ug/l	2.2
Pyrene	DETSC 3304	0.01	ug/l	2.0
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.94
Chrysene	DETSC 3304	0.01	ug/l	1.8
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	3.7
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	1.3
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	2.2
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	2.2
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.33
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	2.9
PAH Total	DETSC 3304	0.2	ug/l	22
Phenols	·			
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665997
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.33
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.6
Barium, Dissolved	DETSC 2306	0.26	ug/l	32
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	50
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.6
Iron, Dissolved	DETSC 2306	5.5	ug/l	860
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	4.5
Manganese, Dissolved	DETSC 2306	0.22	ug/l	400
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.5
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.1
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.8
Inorganics				
рН	DETSC 2008		рН	8.1
Cyanide, Total	DETSC 2130	40	ug/l	2200
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015
Chloride	DETSC 2055	0.1	mg/l	2.6
Sulphate as SO4	DETSC 2055	0.1	mg/l	64



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665997
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1665997
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	ES
Sampling Date	14/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	3.2
Acenaphthylene	DETSC 3304	0.01	ug/l	30
Acenaphthene	DETSC 3304	0.01	ug/l	650
Fluorene	DETSC 3304	0.01	ug/l	120
Phenanthrene	DETSC 3304	0.01	ug/l	5.7
Anthracene	DETSC 3304	0.01	ug/l	11
Fluoranthene	DETSC 3304	0.01	ug/l	11
Pyrene	DETSC 3304	0.01	ug/l	6.7
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	1.4
Chrysene	DETSC 3304	0.01	ug/l	1.5
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	1.6
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 1.00
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 1.00
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 1.00
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 1.00
PAH Total	DETSC 3304	0.2	ug/l	840
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666349
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.25
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.0
Barium, Dissolved	DETSC 2306	0.26	ug/l	2.8
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	< 12
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.4
Iron, Dissolved	DETSC 2306	5.5	ug/l	14
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.21
Manganese, Dissolved	DETSC 2306	0.22	ug/l	0.85
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	< 1.1
Nickel, Dissolved	DETSC 2306	0.5	ug/l	0.7
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	5.4
Zinc, Dissolved	DETSC 2306	1.3	ug/l	< 1.3
Inorganics	•			
рН	DETSC 2008		рН	10.4
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	< 0.015
Chloride	DETSC 2055	0.1	mg/l	1.8
Sulphate as SO4	DETSC 2055	0.1	mg/l	18



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666349
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	13
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	87
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	100
Aromatic C5-C7	DETSC 3322	0.1	ug/l	6.6
Aromatic C7-C8	DETSC 3322	0.1	ug/l	6.7
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	13
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	110
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

N/04b0d

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1666349
Sample ID	PRAIRIE_AUK_TP136_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	15/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.07
Acenaphthylene	DETSC 3304	0.01	ug/l	0.14
Acenaphthene	DETSC 3304	0.01	ug/l	0.21
Fluorene	DETSC 3304	0.01	ug/l	0.09
Phenanthrene	DETSC 3304	0.01	ug/l	0.17
Anthracene	DETSC 3304	0.01	ug/l	0.14
Fluoranthene	DETSC 3304	0.01	ug/l	2.7
Pyrene	DETSC 3304	0.01	ug/l	2.6
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	1.3
Chrysene	DETSC 3304	0.01	ug/l	2.2
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	2.8
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.99
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	1.7
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	1.6
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.32
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	1.5
PAH Total	DETSC 3304	0.2	ug/l	18
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667239
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.58
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	5.9
Barium, Dissolved	DETSC 2306	0.26	ug/l	61
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	76
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	5.8
Iron, Dissolved	DETSC 2306	5.5	ug/l	160
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.57
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	3.6
Manganese, Dissolved	DETSC 2306	0.22	ug/l	98
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.9
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	2.2
Zinc, Dissolved	DETSC 2306	1.3	ug/l	7.2
Inorganics		•		
рН	DETSC 2008		рН	7.3
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.36
Chloride	DETSC 2055	0.1	mg/l	15
Sulphate as SO4	DETSC 2055	0.1	mg/l	1.7



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1667239
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	19
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	260
Aliphatic C10-C12	DETSC 3072*	1	ug/l	7.1
Aliphatic C12-C16	DETSC 3072*	1	ug/l	340
Aliphatic C16-C21	DETSC 3072*	1	ug/l	54
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	680
Aromatic C5-C7	DETSC 3322	0.1	ug/l	4.5
Aromatic C7-C8	DETSC 3322	0.1	ug/l	15
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	3100
Aromatic C12-C16	DETSC 3072*	1	ug/l	13000
Aromatic C16-C21	DETSC 3072*	1	ug/l	95
Aromatic C21-C35	DETSC 3072*	1	ug/l	4.2
Aromatic C5-C35	DETSC 3072*	10	ug/l	16000
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	17000
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

N/04b0d

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1667239
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	ES
Sampling Date	17/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	230
Acenaphthylene	DETSC 3304	0.01	ug/l	2.6
Acenaphthene	DETSC 3304	0.01	ug/l	160
Fluorene	DETSC 3304	0.01	ug/l	30
Phenanthrene	DETSC 3304	0.01	ug/l	0.75
Anthracene	DETSC 3304	0.01	ug/l	0.20
Fluoranthene	DETSC 3304	0.01	ug/l	0.05
Pyrene	DETSC 3304	0.01	ug/l	0.04
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.02
Chrysene	DETSC 3304	0.01	ug/l	0.04
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.04
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.02
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.04
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.04
PAH Total	DETSC 3304	0.2	ug/l	420
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668136
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.70
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.47
Barium, Dissolved	DETSC 2306	0.26	ug/l	36
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	15
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	8.1
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	28
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.14
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.2
Manganese, Dissolved	DETSC 2306	0.22	ug/l	160
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	< 1.1
Nickel, Dissolved	DETSC 2306	0.5	ug/l	3.7
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	15
Inorganics				
рН	DETSC 2008		рН	10.7
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.14
Chloride	DETSC 2055	0.1	mg/l	4.3
Sulphate as SO4	DETSC 2055	0.1	mg/l	31



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668136
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	1.7
Aliphatic C16-C21	DETSC 3072*	1	ug/l	2.4
Aliphatic C21-C35	DETSC 3072*	1	ug/l	15
Aliphatic C5-C35	DETSC 3072*	10	ug/l	19
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	1.2
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	18
Aromatic C21-C35	DETSC 3072*	1	ug/l	81
Aromatic C5-C35	DETSC 3072*	10	ug/l	100
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	120
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668136
Sample ID	PRAIRIE_AUK_TP110_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.32
Acenaphthylene	DETSC 3304	0.01	ug/l	0.34
Acenaphthene	DETSC 3304	0.01	ug/l	0.52
Fluorene	DETSC 3304	0.01	ug/l	0.19
Phenanthrene	DETSC 3304	0.01	ug/l	1.2
Anthracene	DETSC 3304	0.01	ug/l	0.63
Fluoranthene	DETSC 3304	0.01	ug/l	9.9
Pyrene	DETSC 3304	0.01	ug/l	9.1
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	5.5
Chrysene	DETSC 3304	0.01	ug/l	6.7
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	13
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	4.3
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	8.5
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	4.0
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	1.3
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	5.0
PAH Total	DETSC 3304	0.2	ug/l	71
Phenols	•	•		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668137
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

		Jampii		11/3
Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.80
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.52
Barium, Dissolved	DETSC 2306	0.26	ug/l	40
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	16
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	36
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.16
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.4
Manganese, Dissolved	DETSC 2306	0.22	ug/l	180
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	< 1.1
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.2
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	15
Inorganics				
рН	DETSC 2008		рН	8.4
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.20
Chloride	DETSC 2055	0.1	mg/l	5.8
Sulphate as SO4	DETSC 2055	0.1	mg/l	33



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668137
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

				11/3
Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	4.3
Aliphatic C12-C16	DETSC 3072*	1	ug/l	25
Aliphatic C16-C21	DETSC 3072*	1	ug/l	29
Aliphatic C21-C35	DETSC 3072*	1	ug/l	17
Aliphatic C5-C35	DETSC 3072*	10	ug/l	75
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	5.7
Aromatic C16-C21	DETSC 3072*	1	ug/l	18
Aromatic C21-C35	DETSC 3072*	1	ug/l	20
Aromatic C5-C35	DETSC 3072*	10	ug/l	45
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	120
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668137
Sample ID	PRAIRIE_AUK_TP170_SO_0100
Depth	1.00
Other ID	4
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	0.03
Acenaphthene	DETSC 3304	0.01	ug/l	0.02
Fluorene	DETSC 3304	0.01	ug/l	0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.07
Anthracene	DETSC 3304	0.01	ug/l	0.09
Fluoranthene	DETSC 3304	0.01	ug/l	0.28
Pyrene	DETSC 3304	0.01	ug/l	0.26
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.12
Chrysene	DETSC 3304	0.01	ug/l	0.14
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.19
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.07
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.11
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.17
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.04
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.15
PAH Total	DETSC 3304	0.2	ug/l	1.8
Phenols		•		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668573
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.43
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.7
Barium, Dissolved	DETSC 2306	0.26	ug/l	11
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	46
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	1.7
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	4.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	31
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.41
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.7
Manganese, Dissolved	DETSC 2306	0.22	ug/l	2.4
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.17
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	6.6
Nickel, Dissolved	DETSC 2306	0.5	ug/l	0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	15
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.5
Inorganics		•		
рН	DETSC 2008		рН	8.4
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.033
Chloride	DETSC 2055	0.1	mg/l	0.73
Sulphate as SO4	DETSC 2055	0.1	mg/l	29



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668573
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	
EPH (C10-C40)	DETSC 3311	10	ug/l		



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668573
Sample ID	PRAIRIE_AUK_TP140_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.30
Acenaphthylene	DETSC 3304	0.01	ug/l	0.23
Acenaphthene	DETSC 3304	0.01	ug/l	0.11
Fluorene	DETSC 3304	0.01	ug/l	0.11
Phenanthrene	DETSC 3304	0.01	ug/l	1.2
Anthracene	DETSC 3304	0.01	ug/l	0.38
Fluoranthene	DETSC 3304	0.01	ug/l	3.5
Pyrene	DETSC 3304	0.01	ug/l	3.1
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	1.6
Chrysene	DETSC 3304	0.01	ug/l	2.4
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	4.4
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	1.9
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	2.9
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	4.0
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.69
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	3.8
PAH Total	DETSC 3304	0.2	ug/l	31
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668574
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETSC 1009*				
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ	
Metals					
Antimony, Dissolved	DETSC 2306	0.17	ug/l	14	
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	8.1	
Barium, Dissolved	DETSC 2306	0.26	ug/l	20	
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	
Boron, Dissolved	DETSC 2306*	12	ug/l	180	
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25	
Chromium, Total	DETSC 2306*	0.25	ug/l		
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.7	
Iron, Dissolved	DETSC 2306	5.5	ug/l	8.7	
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.30	
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	3.4	
Manganese, Dissolved	DETSC 2306	0.22	ug/l	47	
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.27	
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	51	
Nickel, Dissolved	DETSC 2306	0.5	ug/l	11	
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.9	
Zinc, Dissolved	DETSC 2306	1.3	ug/l	4.3	
Inorganics					
рН	DETSC 2008		рН	8.2	
Cyanide, Total	DETSC 2130	40	ug/l	< 40	
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.91	
Chloride	DETSC 2055	0.1	mg/l	1.4	
Sulphate as SO4	DETSC 2055	0.1	mg/l	25	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668574
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	4.1
Aliphatic C12-C16	DETSC 3072*	1	ug/l	9.3
Aliphatic C16-C21	DETSC 3072*	1	ug/l	83
Aliphatic C21-C35	DETSC 3072*	1	ug/l	350
Aliphatic C5-C35	DETSC 3072*	10	ug/l	440
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	1.1
Aromatic C12-C16	DETSC 3072*	1	ug/l	4.9
Aromatic C16-C21	DETSC 3072*	1	ug/l	79
Aromatic C21-C35	DETSC 3072*	1	ug/l	390
Aromatic C5-C35	DETSC 3072*	10	ug/l	480
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	920
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668574
Sample ID	PRAIRIE_AUK_TP141_SO_0200
Depth	2.00
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	2.5
Acenaphthylene	DETSC 3304	0.01	ug/l	0.14
Acenaphthene	DETSC 3304	0.01	ug/l	0.54
Fluorene	DETSC 3304	0.01	ug/l	0.51
Phenanthrene	DETSC 3304	0.01	ug/l	1.4
Anthracene	DETSC 3304	0.01	ug/l	0.23
Fluoranthene	DETSC 3304	0.01	ug/l	1.4
Pyrene	DETSC 3304	0.01	ug/l	1.0
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.40
Chrysene	DETSC 3304	0.01	ug/l	0.61
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.50
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.20
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.31
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.33
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.35
PAH Total	DETSC 3304	0.2	ug/l	10
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668575
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	18
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	41
Barium, Dissolved	DETSC 2306	0.26	ug/l	2.9
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	17
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.04
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.44
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	30
Iron, Dissolved	DETSC 2306	5.5	ug/l	240
Lead, Dissolved	DETSC 2306	0.09	ug/l	16
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.15
Manganese, Dissolved	DETSC 2306	0.22	ug/l	3.1
Mercury, Dissolved	DETSC 2306	0.01	ug/l	1.2
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	77
Nickel, Dissolved	DETSC 2306	0.5	ug/l	18
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.6
Zinc, Dissolved	DETSC 2306	1.3	ug/l	6.0
Inorganics				
рН	DETSC 2008		рН	10.0
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	3.2
Chloride	DETSC 2055	0.1	mg/l	1.5
Sulphate as SO4	DETSC 2055	0.1	mg/l	2.2



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668575
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	1.2
Aliphatic C12-C16	DETSC 3072*	1	ug/l	8.3
Aliphatic C16-C21	DETSC 3072*	1	ug/l	130
Aliphatic C21-C35	DETSC 3072*	1	ug/l	1000
Aliphatic C5-C35	DETSC 3072*	10	ug/l	1200
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	1.4
Aromatic C12-C16	DETSC 3072*	1	ug/l	12
Aromatic C16-C21	DETSC 3072*	1	ug/l	100
Aromatic C21-C35	DETSC 3072*	1	ug/l	670
Aromatic C5-C35	DETSC 3072*	10	ug/l	790
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	1900
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668575
Sample ID	PRAIRIE_AUK_TP142_SO_0150
Depth	1.50
Other ID	4
Sample Type	ES
Sampling Date	23/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.29
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.10
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.10
Fluorene	DETSC 3304	0.01	ug/l	0.11
Phenanthrene	DETSC 3304	0.01	ug/l	0.24
Anthracene	DETSC 3304	0.01	ug/l	< 0.10
Fluoranthene	DETSC 3304	0.01	ug/l	< 0.10
Pyrene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.10
Chrysene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.10
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.10
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.10
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.10
PAH Total	DETSC 3304	0.2	ug/l	< 1.60
Phenols		•		
Phenol - Monohydric	DETSC 2130	100	ug/l	400



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668870
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.8
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	3.1
Barium, Dissolved	DETSC 2306	0.26	ug/l	38
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	60
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.91
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	6.4
Iron, Dissolved	DETSC 2306	5.5	ug/l	47
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.86
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	2.0
Manganese, Dissolved	DETSC 2306	0.22	ug/l	12
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.05
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	4.4
Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.2
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	5.4
Zinc, Dissolved	DETSC 2306	1.3	ug/l	3.8
Inorganics	•			
рН	DETSC 2008		рН	7.2
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.17
Chloride	DETSC 2055	0.1	mg/l	1.6
Sulphate as SO4	DETSC 2055	0.1	mg/l	58



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668870
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	5.4
Aliphatic C21-C35	DETSC 3072*	1	ug/l	47
Aliphatic C5-C35	DETSC 3072*	10	ug/l	53
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	1.2
Aromatic C12-C16	DETSC 3072*	1	ug/l	1.7
Aromatic C16-C21	DETSC 3072*	1	ug/l	14
Aromatic C21-C35	DETSC 3072*	1	ug/l	66
Aromatic C5-C35	DETSC 3072*	10	ug/l	83
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	140
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1668870
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	ES
Sampling Date	24/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	1.9
Acenaphthylene	DETSC 3304	0.01	ug/l	2.7
Acenaphthene	DETSC 3304	0.01	ug/l	0.93
Fluorene	DETSC 3304	0.01	ug/l	1.1
Phenanthrene	DETSC 3304	0.01	ug/l	16
Anthracene	DETSC 3304	0.01	ug/l	3.1
Fluoranthene	DETSC 3304	0.01	ug/l	36
Pyrene	DETSC 3304	0.01	ug/l	33
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	19
Chrysene	DETSC 3304	0.01	ug/l	20
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	35
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	11
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	21
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	22
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	10
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	20
PAH Total	DETSC 3304	0.2	ug/l	250
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669252
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals	<u>.</u>	•		
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.57
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.1
Barium, Dissolved	DETSC 2306	0.26	ug/l	17
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	14
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	2.0
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.6
Iron, Dissolved	DETSC 2306	5.5	ug/l	34
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.1
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	1.1
Manganese, Dissolved	DETSC 2306	0.22	ug/l	7.9
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.3
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.0
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.9
Inorganics	•	•		
рН	DETSC 2008		рН	10.7
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.039
Chloride	DETSC 2055	0.1	mg/l	7.7
Sulphate as SO4	DETSC 2055	0.1	mg/l	33



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669252
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1669252
Sample ID	PRAIRIE_AUK_TP112_SO_0210
Depth	2.10
Other ID	7
Sample Type	ES
Sampling Date	22/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.25
Acenaphthylene	DETSC 3304	0.01	ug/l	0.23
Acenaphthene	DETSC 3304	0.01	ug/l	0.05
Fluorene	DETSC 3304	0.01	ug/l	0.11
Phenanthrene	DETSC 3304	0.01	ug/l	5.7
Anthracene	DETSC 3304	0.01	ug/l	0.82
Fluoranthene	DETSC 3304	0.01	ug/l	2.5
Pyrene	DETSC 3304	0.01	ug/l	1.1
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.26
Chrysene	DETSC 3304	0.01	ug/l	0.32
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.30
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.16
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.14
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.22
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.04
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.18
PAH Total	DETSC 3304	0.2	ug/l	12
Phenols		•		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670145
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.98
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.1
Barium, Dissolved	DETSC 2306	0.26	ug/l	47
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	150
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.11
Chromium, Dissolved	DETSC 2306	0.25	ug/l	
Chromium, Total	DETSC 2306*	0.25	ug/l	0.32
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.6
Iron, Dissolved	DETSC 2306	5.5	ug/l	< 5.5
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.20
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	24
Manganese, Dissolved	DETSC 2306	0.22	ug/l	30
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.1
Nickel, Dissolved	DETSC 2306	0.5	ug/l	6.3
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	0.8
Zinc, Dissolved	DETSC 2306	1.3	ug/l	33
Inorganics	<b>'</b>			
рН	DETSC 2008		рН	7.7
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.097
Chloride	DETSC 2055	0.1	mg/l	4.0
Sulphate as SO4	DETSC 2055	0.1	mg/l	400



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670145
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1670145
Sample ID	PRAIRIE_AUK_TP201_SO_0360
Depth	3.60
Other ID	1
Sample Type	ES
Sampling Date	28/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.28
Acenaphthylene	DETSC 3304	0.01	ug/l	0.02
Acenaphthene	DETSC 3304	0.01	ug/l	0.12
Fluorene	DETSC 3304	0.01	ug/l	0.03
Phenanthrene	DETSC 3304	0.01	ug/l	0.05
Anthracene	DETSC 3304	0.01	ug/l	0.04
Fluoranthene	DETSC 3304	0.01	ug/l	0.05
Pyrene	DETSC 3304	0.01	ug/l	0.04
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.02
Chrysene	DETSC 3304	0.01	ug/l	0.02
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.03
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.02
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.02
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.02
PAH Total	DETSC 3304	0.2	ug/l	0.75
Phenols		·		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675436
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	2.8
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	4.7
Barium, Dissolved	DETSC 2306	0.26	ug/l	20
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	51
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	1.6
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	22
Iron, Dissolved	DETSC 2306	5.5	ug/l	31
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.20
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.22
Manganese, Dissolved	DETSC 2306	0.22	ug/l	1.6
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	3.4
Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.2
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	48
Zinc, Dissolved	DETSC 2306	1.3	ug/l	< 1.3
Inorganics				
рН	DETSC 2008		рН	10.7
Cyanide, Total	DETSC 2130	40	ug/l	44
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.13
Chloride	DETSC 2055	0.1	mg/l	1.9
Sulphate as SO4	DETSC 2055	0.1	mg/l	31



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675436
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675436
Sample ID	PRAIRIE_AUK_TP123_SO_0060
Depth	0.60
Other ID	3
Sample Type	ES
Sampling Date	08/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.30
Acenaphthylene	DETSC 3304	0.01	ug/l	0.58
Acenaphthene	DETSC 3304	0.01	ug/l	0.65
Fluorene	DETSC 3304	0.01	ug/l	0.28
Phenanthrene	DETSC 3304	0.01	ug/l	0.49
Anthracene	DETSC 3304	0.01	ug/l	0.21
Fluoranthene	DETSC 3304	0.01	ug/l	0.74
Pyrene	DETSC 3304	0.01	ug/l	0.50
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.35
Chrysene	DETSC 3304	0.01	ug/l	0.38
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.71
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.29
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.44
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.59
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	0.12
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.58
PAH Total	DETSC 3304	0.2	ug/l	7.2
Phenols		•		
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675439
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.6
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.4
Barium, Dissolved	DETSC 2306	0.26	ug/l	32
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	110
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	2.0
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	3.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	9.6
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	0.29
Manganese, Dissolved	DETSC 2306	0.22	ug/l	0.90
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.03
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.8
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	78
Zinc, Dissolved	DETSC 2306	1.3	ug/l	< 1.3
Inorganics				
рН	DETSC 2008		рН	10.2
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.058
Chloride	DETSC 2055	0.1	mg/l	1.4
Sulphate as SO4	DETSC 2055	0.1	mg/l	37



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675439
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675439
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	0.63
Acenaphthylene	DETSC 3304	0.01	ug/l	0.43
Acenaphthene	DETSC 3304	0.01	ug/l	0.42
Fluorene	DETSC 3304	0.01	ug/l	0.21
Phenanthrene	DETSC 3304	0.01	ug/l	1.9
Anthracene	DETSC 3304	0.01	ug/l	0.89
Fluoranthene	DETSC 3304	0.01	ug/l	16
Pyrene	DETSC 3304	0.01	ug/l	18
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	9.4
Chrysene	DETSC 3304	0.01	ug/l	12
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	20
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	11
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	14
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	16
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	3.8
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	16
PAH Total	DETSC 3304	0.2	ug/l	140
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675441
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Y
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.46
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.5
Barium, Dissolved	DETSC 2306	0.26	ug/l	18
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	51
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.65
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.8
Iron, Dissolved	DETSC 2306	5.5	ug/l	15
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.14
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	2.4
Manganese, Dissolved	DETSC 2306	0.22	ug/l	7.9
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.5
Nickel, Dissolved	DETSC 2306	0.5	ug/l	< 0.5
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	27
Zinc, Dissolved	DETSC 2306	1.3	ug/l	10
Inorganics				
рН	DETSC 2008		рН	8.6
Cyanide, Total	DETSC 2130	40	ug/l	< 40
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.16
Chloride	DETSC 2055	0.1	mg/l	1.3
Sulphate as SO4	DETSC 2055	0.1	mg/l	36



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

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Client Ref 4251

Lab No	1675441
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	1.9
Aromatic C21-C35	DETSC 3072*	1	ug/l	6.4
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675441
Sample ID	PRAIRIE_AUK_TP103_SO_0100
Depth	1.00
Other ID	3
Sample Type	ES
Sampling Date	20/04/2020
Sampling Time	n/s

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Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	4.6
Acenaphthylene	DETSC 3304	0.01	ug/l	3.2
Acenaphthene	DETSC 3304	0.01	ug/l	< 1.00
Fluorene	DETSC 3304	0.01	ug/l	1.1
Phenanthrene	DETSC 3304	0.01	ug/l	4.4
Anthracene	DETSC 3304	0.01	ug/l	4.8
Fluoranthene	DETSC 3304	0.01	ug/l	83
Pyrene	DETSC 3304	0.01	ug/l	95
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	70
Chrysene	DETSC 3304	0.01	ug/l	76
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	210
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	57
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	130
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	210
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	28
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	400
PAH Total	DETSC 3304	0.2	ug/l	1400
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675442
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Preparation				
BS EN 12457 10:1	DETSC 1009*			
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ
Metals				
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.71
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	1.5
Barium, Dissolved	DETSC 2306	0.26	ug/l	26
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	150
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03
Chromium, Dissolved	DETSC 2306	0.25	ug/l	< 0.25
Chromium, Total	DETSC 2306*	0.25	ug/l	
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.2
Iron, Dissolved	DETSC 2306	5.5	ug/l	150
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	5.6
Manganese, Dissolved	DETSC 2306	0.22	ug/l	330
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	2.7
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.1
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.1
Zinc, Dissolved	DETSC 2306	1.3	ug/l	4.5
Inorganics				
рН	DETSC 2008		рН	8.5
Cyanide, Total	DETSC 2130	40	ug/l	320
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.078
Chloride	DETSC 2055	0.1	mg/l	2.5
Sulphate as SO4	DETSC 2055	0.1	mg/l	28



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675442
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	22
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	22
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	1.1
Aromatic C12-C16	DETSC 3072*	1	ug/l	25
Aromatic C16-C21	DETSC 3072*	1	ug/l	4.1
Aromatic C21-C35	DETSC 3072*	1	ug/l	1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	31
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	53
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675442
Sample ID	PRAIRIE_AUK_TP194A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
PAHs				
Naphthalene	DETSC 3304	0.05	ug/l	57
Acenaphthylene	DETSC 3304	0.01	ug/l	200
Acenaphthene	DETSC 3304	0.01	ug/l	430
Fluorene	DETSC 3304	0.01	ug/l	200
Phenanthrene	DETSC 3304	0.01	ug/l	180
Anthracene	DETSC 3304	0.01	ug/l	53
Fluoranthene	DETSC 3304	0.01	ug/l	82
Pyrene	DETSC 3304	0.01	ug/l	48
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	22
Chrysene	DETSC 3304	0.01	ug/l	19
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	24
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	10
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	19
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	15
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	3.7
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	12
PAH Total	DETSC 3304	0.2	ug/l	1400
Phenols				
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675443
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

	Jumping Time				
Test	Method	LOD	Units		
Preparation					
BS EN 12457 10:1	DETSC 1009*				
Leachate 2:1 250g Non-WAC	DETSC 1009*			Υ	
Metals					
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.66	
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.98	
Barium, Dissolved	DETSC 2306	0.26	ug/l	27	
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	0.3	
Boron, Dissolved	DETSC 2306*	12	ug/l	75	
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.10	
Chromium, Dissolved	DETSC 2306	0.25	ug/l	0.93	
Chromium, Total	DETSC 2306*	0.25	ug/l		
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.0	
Iron, Dissolved	DETSC 2306	5.5	ug/l	410	
Lead, Dissolved	DETSC 2306	0.09	ug/l	1.1	
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	4.8	
Manganese, Dissolved	DETSC 2306	0.22	ug/l	580	
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.04	
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	6.1	
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.6	
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.4	
Zinc, Dissolved	DETSC 2306	1.3	ug/l	1.7	
Inorganics					
рН	DETSC 2008		рН	6.9	
Cyanide, Total	DETSC 2130	40	ug/l	1000	
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.063	
Chloride	DETSC 2055	0.1	mg/l	2.2	
Sulphate as SO4	DETSC 2055	0.1	mg/l	44	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675443
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

Test	Method	LOD	Units	
Petroleum Hydrocarbons				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	12
Aromatic C16-C21	DETSC 3072*	1	ug/l	1.6
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	15
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	15
EPH (C10-C40)	DETSC 3311	10	ug/l	



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-

Our Ref 09144,20-09146,20-09147,20-09149

Client Ref 4251

Lab No	1675443
Sample ID	PRAIRIE_AUK_TP196A_SO_0140
Depth	1.40
Other ID	1
Sample Type	ES
Sampling Date	29/04/2020
Sampling Time	n/s

				1	
Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	34	
Acenaphthylene	DETSC 3304	0.01	ug/l	170	
Acenaphthene	DETSC 3304	0.01	ug/l	760	
Fluorene	DETSC 3304	0.01	ug/l	270	
Phenanthrene	DETSC 3304	0.01	ug/l	66	
Anthracene	DETSC 3304	0.01	ug/l	66	
Fluoranthene	DETSC 3304	0.01	ug/l	92	
Pyrene	DETSC 3304	0.01	ug/l	56	
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	18	
Chrysene	DETSC 3304	0.01	ug/l	18	
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	27	
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	11	
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	18	
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	17	
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	4.4	
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	15	
PAH Total	DETSC 3304	0.2	ug/l	1700	
Phenols		•			
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	



# **Summary of Asbestos Analysis Soil Samples**

20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-0

Our Ref 09149 Client Ref 4251

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
1663605	PRAIRIE_AUK_TP132_SO_0130 4	SOIL	NAD	none	Joanne Luscombe
	1.30				
1663606	PRAIRIE_AUK_TP131_SO_0180 5 1.80	SOIL	NAD	none	Joanne Luscombe
1663734	PRAIRIE_AUK_TP101_SO_0100 5	SOIL	Chrysotile	Chrysotile present as fibre bundles	Joanne Luscombe
1003734	1.00	3012	em ysothe	emysothe present as hore bundles	Journie Euscombe
1663735	PRAIRIE_AUK_TP101_SO_0220 9	SOIL	NAD	none	Joanne Luscombe
	2.20				
1663736	PRAIRIE_AUK_TP104_SO_0150 5	SOIL	NAD	none	Joanne Luscombe
	1.50				
1663737	PRAIRIE_AUK_TP105_SO_0250 11	SOIL	NAD	none	Joanne Luscombe
	2.50				
1663978	PRAIRIE_AUK_BH104_SO_0550 1	SOIL	NAD	none	Joanne Luscombe
1665122	5.50	COII	Amasita	Amorita procent in bundles	Loo Korridgo
1665133	PRAIRIE_AUK_TP172_SO_0080 3 0.80	SOIL	Amosite	Amosite present in bundles	Lee Kerridge
1665134	PRAIRIE_AUK_TP175_SO_0080 3	SOIL	NAD	none	Lee Kerridge
1003131	0.80	3012	11.15	none	Lee Kerriage
1665135	PRAIRIE_AUK_TP175_SO_0180 6	SOIL	NAD	none	Lee Kerridge
	1.80				
1665136	PRAIRIE_AUK_TP178_SO_0080 3	SOIL	NAD	none	Lee Kerridge
	0.80				
1665137	PRAIRIE_AUK_BH106_SO_0550 1	SOIL	NAD	none	Lee Kerridge
	5.50				
1665138	PRAIRIE_AUK_TP107_SO_0180 6	SOIL	NAD	none	Lee Kerridge
1665130	1.80 PRAIRIE_AUK_TP107_SO_0080 11	SOIL	NAD	nana	Loo Korridgo
1665139	0.80	SUIL	NAD	none	Lee Kerridge
1665140	PRAIRIE_AUK_TP108_SO_0100 5	SOIL	Amosite	Amosite present in bundles	Lee Kerridge
10001.0	1.00	55.2	7	, and site present in surfaces	zee kerriage
1665141	PRAIRIE_AUK_TP108_SO_0200 8	SOIL	Amosite	Amosite present in bundles	Lee Kerridge
	2.00			·	_
1665142	PRAIRIE_AUK_TP113_SO_0130 5	SOIL	Chrysotile	Chrysotile present in bundles	Lee Kerridge
	1.30				
1665286	PRAIRIE_AUK_BH103_SO_0250 1	SOIL	NAD	none	Lee Kerridge
4665300	2.50	cou	NAD		Lee Keedelee
1665288	PRAIRIE_AUK_TP115_SO_0190 6 1.90	SOIL	NAD	none	Lee Kerridge
1665290	PRAIRIE_AUK_TP122_SO_0100 3	SOIL	Chrysotile	Chrysotile present in microscopic	Lee Kerridge
1003230	1.00	3012	cm ysothe	cement fragments	Lee Kerriage
1665291	PRAIRIE AUK TP123 SO 0060 3	SOIL	NAD	none	Lee Kerridge
	0.60				
1665292	PRAIRIE_AUK_TP185_SO_0430 5	SOIL	NAD	none	Lee Kerridge
	4.30				
1665293	PRAIRIE_AUK_TP186_SO_0050 3	SOIL	NAD	none	Lee Kerridge
	0.50				
1665295	PRAIRIE_AUK_TP188_SO_0100 3	SOIL	NAD	none	Lee Kerridge
1665450	1.00 PRARIE_AUK_TP121_SO_0150 4	SOIL	NAD	none	D Wilkinson
1003430	1.50	JUIL	INAU	none	אוואוואסוו
1665451	PRARIE_AUK_TP138_SO_0120 3	SOIL	Chrysotile	Chrysotile present in microscopic	D Wilkinson
	1.20		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	loose fibrous asbestos debris	
	1 '	1	I		



# **Summary of Asbestos Analysis Soil Samples**

20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-0

Our Ref 09149 Client Ref 4251

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
1665452	PRARIE_AUK_TP149_SO_0130 3 1.30	SOIL	Chrysotile	Chrysotile present as fibre bundles	D Wilkinson
1665453	PRARIE_AUK_TP168_SO_0005 1 0.05	SOIL	Chrysotile	Chrysotile present as fibre bundles	D Wilkinson
1665454	PRARIE_AUK_TP173_SO_0090 3 0.90	SOIL	Chrysotile	Chrysotile present as fibre bundles	D Wilkinson
1665455	PRARIE_AUK_SURFACE1_SO_0000	SOIL	NAD	none	D Wilkinson
1665588	PRAIRIE_AUK_TP114_SO_0090 6 0.90	SOIL	NAD	none	Lee Kerridge
1665589	PRAIRIE_AUK_TP124_SO_0150 5 1.50	SOIL	Chrysotile	Chrysotile present in bundles	Lee Kerridge
1665590	PRAIRIE_AUK_TP174_SO_0080 3 0.80	SOIL	NAD	none	Lee Kerridge
1665591	PRAIRIE_AUK_TP174_SO_0160 6 1.60	SOIL	NAD	none	Lee Kerridge
1665592	PRAIRIE_AUK_TP176_SO_0090 3 0.90	SOIL	NAD	none	Lee Kerridge
1665593	PRAIRIE_AUK_TP177_SO_0060 2 0.60	SOIL	NAD	none	Lee Kerridge
1665594	PRAIRIE_AUK_TP189_SO_0300 7 3.00	SOIL	NAD	none	Lee Kerridge
1665610	PRAIRIE_AUK_TP179_SO_0140 4 1.40	SOIL	U/S	U/S	U/S
1665611	PRAIRIE_AUK_TP179_SO_0200 7 2.00	SOIL	NAD	none	D Wilkinson
1665612	PRAIRIE_AUK_TP181_SO_0060 3 0.60	SOIL	NAD	none	D Wilkinson
1665613	PRAIRIE_AUK_TP182_SO_0090 3 0.90	SOIL	U/S	U/S	U/S
1665990	PRAIRIE_AUK_TP145_SO_0160 4 1.60	SOIL	NAD	none	Joanne Luscombe
1665991	PRAIRIE_AUK_TP146C_SO_0130 5	SOIL	NAD	none	Joanne Luscombe
1665992	PRAIRIE_AUK_TP156A_SO_0030 2 0.30	SOIL	Chrysotile	Bundles of Chrysotile fibres	Joanne Luscombe
1665993	PRAIRIE_AUK_TP162_SO_0170 3A 1.70	SOIL	NAD	none	Joanne Luscombe
1665994	PRAIRIE_AUK_TP180_SO_0030 3 0.30	SOIL	NAD	none	Joanne Luscombe
1665995	PRAIRIE_AUK_TP163_SO_0120 3 1.20	SOIL	Chrysotile	Bundles of Chrysotile fibres	Joanne Luscombe
1666343	PRAIRIE_AUK_TP135_SO_0130 5 1.30	SOIL	Chrysotile Amosite	Amosite and Chrysotile present in Loose Fibrous Asbestos Debris	Lee Kerridge
1666344	PRAIRIE_AUK_TP136_SO_0080 3 0.80	SOIL	NAD	none Pibrous Aspestos Debris	Lee Kerridge
1666345	PRAIRIE_AUK_TP136_SO_0290 10 2.90	SOIL	NAD	none	Lee Kerridge
1666346	PRAIRIE_AUK_TP165_SO_0100 3 1.00	SOIL	NAD	none	Lee Kerridge
1666347	PRAIRIE_AUK_TP167_SO_0250 6 2.50	SOIL	NAD	none	Lee Kerridge



# **Summary of Asbestos Analysis Soil Samples**

20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-0

Our Ref 09149 Client Ref 4251

Lab No	Sample ID	Material Type	Result	Comment*	Analyst
1666348	PRAIRIE_AUK_TP169_SO_0150 3	SOIL	Chrysotile	Chrysotile present in bundles	Lee Kerridge
	1.50				
1666610	PRAIRIE_AUK_BH108_SO_0250 1	SOIL	NAD	none	Lee Kerridge
	2.50				
1666611	PRAIRIE_AUK_TP139B_SO_0030 3	SOIL	Chrysotile	Chrysotile present in bundles	Lee Kerridge
1666612	0.30	SOU			
1666612	PRAIRIE_AUK_TP139B_SO_0330 6	SOIL	NAD	none	Lee Kerridge
1666613	3.30 PRAIRIE_AUK_TP148A_SO_0140 5	SOIL	NAD	none	Lee Kerridge
1000013	1.40	SOIL	NAD	none	Lee Kerriuge
1666614	PRAIRIE_AUK_TP150_SO_0150 3	SOIL	Amosite Chrysotile	Amosite and Chrysotile present in	Lee Kerridge
100001	1.50	55.2	, and site on your	Loose Fibrous Asbestos Debris	zee nemage
1666615	PRAIRIE_AUK_TP159_SO_0060 3	SOIL	Amosite Chrysotile	Amosite and Chrysotile present in	Lee Kerridge
	0.60		,	Loose Fibrous Asbestos Debris	
1666616	PRAIRIE_AUK_TP190A_SO_0110 3	SOIL	Amosite Chrysotile	Amosite and Chrysotile present in	Lee Kerridge
	1.10			Loose Fibrous Asbestos Debris	
1667231	PRAIRIE_AUK_BH105_SO_0300 1	SOIL	NAD	none	Joanne Luscombe
	3.00				
1667232	PRAIRIE_AUK_TP126_SO_0260 5	SOIL	NAD	none	Joanne Luscombe
	2.60				
1667233	PRAIRIE_AUK_TP128_SO_0090 3	SOIL	Chrysotile	small bundles of Chrysotile present	Joanne Luscombe
1667224	0.90	COIL	NAD		laanaa lusaanaha
1667234	PRAIRIE_AUK_TP129_SO_0210 4A	SOIL	NAD	none	Joanne Luscombe
1667235	2.10 PRAIRIE_AUK_TP130_SO_0100 4A	SOIL	NAD	none	Joanne Luscombe
100/235	1.00	JOIL	NAD	Hone	Joanne Luscombe
1667236	PRAIRIE_AUK_TP147_SO_0150 4	SOIL	Amosite	Amosite present as fibre bundles	Joanne Luscombe
	1.50			F	
1667237	PRAIRIE_AUK_TP158_SO_0130 3	SOIL	NAD	none	Joanne Luscombe
	1.30				
1667238	PRAIRIE_AUK_TP157_SO_0080 2	SOIL	Amosite	Amosite present as fibre bundles	Joanne Luscombe
	0.80				
1667501	PRAIRIE_AUK_TP120A_SO_0100 3	SOIL	Chrysotile	Chrysotile bundles present	Lee Kerridge
	1.00				
1667502	PRAIRIE_AUK_TP134_SO_0100 3	SOIL	NAD	none	Lee Kerridge
1667503	1.00 PRAIRIE_AUK_TP134_SO_0200 6	SOIL	NAD		l a a Manuida a
100/503	2.00	SOIL	NAD	none	Lee Kerridge
1667504	PRAIRIE_AUK_TP161_SO_0100 3	SOIL	NAD	none	Lee Kerridge
1007301	1.00	3012	10.15	none	Lee Kerriage
1667505	PRAIRIE AUK TP166 SO 0045 3	SOIL	Amosite	Amosite present in bundles	Lee Kerridge
	0.45			•	
1667506	PRAIRIE_AUK_TP166_SO_0120 8	SOIL	NAD	none	Lee Kerridge
	1.20				
1667507	PRAIRIE_AUK_TP171_SO_0075 3	SOIL	NAD	none	Lee Kerridge
	0.75				
1667508	PRAIRIE_AUK_TP187_SO_0070 3	SOIL	NAD	none	Lee Kerridge
1000111	0.70				
1668118	PRAIRIE_AUK_BH110_SO_0300 1	SOIL	NAD	none	Lee Kerridge
1660110	3.00	SOII	NAD	none	Loo Korridas
1668119	PRAIRIE_AUK_TP102_SO_0100 4	SOIL	NAD	none	Lee Kerridge
	1.00				



# **Summary of Asbestos Analysis Soil Samples**

20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-0

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Lab No	Sample ID	Material Type	Result	Comment*	Analyst
1668120	PRAIRIE_AUK_TP102_SO_0300 11 3.00	SOIL	Chrysotile	Chrysotile present in bundles	Lee Kerridge
1668121	PRAIRIE_AUK_TP103_SO_0100 3 1.00	SOIL	NAD	none	Lee Kerridge
1668122	PRAIRIE_AUK_TP109_SO_0100 3 1.00	SOIL	NAD	none	Lee Kerridge
1668123	PRAIRIE_AUK_TP110_SO_0100 3 1.00	SOIL	NAD	none	Lee Kerridge
1668124	PRAIRIE_AUK_TP110_SO_0200 7 2.00	SOIL	NAD	none	Lee Kerridge
1668125	PRAIRIE_AUK_TP111_SO_0150 4 1.50	SOIL	Chrysotile Amosite	Amosite and Chrysotile present in Loose Fibrous Asbestos Debris	Lee Kerridge
1668126	PRAIRIE_AUK_TP112_SO_0150 4 1.50	SOIL	NAD	none	Lee Kerridge
1668127	PRAIRIE_AUK_TP119_SO_0150 3 1.50	SOIL	NAD	none	Lee Kerridge
1668128	PRAIRIE_AUK_TP119_SO_0250 7 2.50	SOIL	NAD	none	Lee Kerridge
1668129	PRAIRIE_AUK_TP133_SO_0050 2 0.50	SOIL	NAD	none	Lee Kerridge
1668130	PRAIRIE_AUK_TP152_SO_0200 6 2.00	SOIL	Chrysotile	Chrysotile present in bundles	Lee Kerridge
1668131	PRAIRIE_AUK_TP153_SO_0110 4 1.10	SOIL	NAD	none	Lee Kerridge
1668132	PRAIRIE_AUK_TP154_SO_0085 3 0.85	SOIL	NAD	none	Lee Kerridge
1668133	PRAIRIE_AUK_TP155_SO_0070 3 0.70	SOIL	NAD	none	Lee Kerridge
1668134	PRAIRIE_AUK_TP160_SO_0075 4 0.75	SOIL	NAD	none	Lee Kerridge
1668135	PRAIRIE_AUK_TP170_SO_0100 4 1.00	SOIL	NAD	none	Lee Kerridge
1668557	PRAIRIE_AUK_TP164_SO_0070 3 0.70	SOIL	NAD	none	Lee Kerridge
1668558	PRAIRIE_AUK_TP164_SO_0130 5 1.30	SOIL	NAD	none	Lee Kerridge
1668559	PRAIRIE_AUK_TP184_SO_0030 2 0.30	SOIL	Amosite	Amosite present in bundles	Lee Kerridge
1668560	PRAIRIE_AUK_TP106_SO_0100 3 1.00	SOIL	NAD	none	Keith Wilson
1668561	PRAIRIE_AUK_TP116_SO_0130 3 1.30	SOIL	Chrysotile	Bundle of Chrysotile fibres	Keith Wilson
1668562	PRAIRIE_AUK_TP117_SO_0300 8 3.00	SOIL	Chrysotile	Bundle of Chrysotile fibres	Keith Wilson
1668563	PRAIRIE_AUK_TP118_SO_0120 3 1.20	SOIL	NAD	none	Keith Wilson
1668564	PRAIRIE_AUK_TP127_SO_0030 3 0.30	SOIL	NAD	none	Keith Wilson
1668565	PRAIRIE_AUK_TP127A_SO_0280 3 2.80	SOIL	NAD	none	Keith Wilson
1668566	PRAIRIE_AUK_TP140_SO_0100 3 1.00	SOIL	NAD	none	Keith Wilson



# **Summary of Asbestos Analysis Soil Samples**

20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-0

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Contract Title Prairie Site Ground Investigation Works

Lab No	Sample ID	<b>Material Type</b>	Result	Comment*	Analyst
1668567	PRAIRIE_AUK_TP141_SO_0200 4 2.00	SOIL	U/S	U/S	U/S
1668568	PRAIRIE_AUK_TP142_SO_0090 3 0.90	SOIL	U/S	U/S	U/S
1668569	PRAIRIE_AUK_TP142_SO_0150 4 1.50	SOIL	U/S	U/S	U/S
1668570	PRAIRIE_AUK_TP143_SO_0080 3 0.80	SOIL	NAD	none	Keith Wilson
1668571	PRAIRIE_AUK_TP143_SO_0160 6 1.60	SOIL	NAD	none	Keith Wilson
1668572	PRAIRIE_AUK_TP151_SO_0120 5 1.20	SOIL	NAD	none	Keith Wilson
1668657	PRAIRIE_AUK_TP139_SO_0110 4 1.10	SOIL	NAD	none	Keith Wilson
1668869	PRAIRIE_AUK_TP144_SO_0080 3 0.80	SOIL	Chrysotile	Bundles of Chrysotile fibres	Keith Wilson
1669251	PRAIRIE_AUK_TP112_SO_0210 7 2.10	SOIL	NAD	none	Lee Kerridge
1670142	PRAIRIE_AUK_TP194A_SO_0140 1 1.40	SOIL	NAD	none	Keith Wilson
1670143	PRAIRIE_AUK_TP196A_SO_0140 1 1.40	SOIL	NAD	none	Keith Wilson
1670144	PRAIRIE_AUK_TP201_SO_0360 1 3.60	SOIL	NAD	none	Joanne Luscombe
1670502	PRAIRIE_AUK_TP193_SO_0080 1 0.80	SOIL	NAD	none	Keith Wilson
1675450	PRAIRIE_AUK_BH101_SO_0300 1 3.00	SOIL	NAD	none	Keith Wilson
1675451	PRAIRIE_AUK_BH107_SO_0300 1 3.00	SOIL	NAD	none	Keith Wilson

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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Contract Title Prairie Site Ground Investigation Worl	ks		
		Lab No	1663734
		Sample ID	PRAIRIE_AUK_TP101_SO_0100
		Depth	1.00
		Other ID	5
	Saı	mple Type	SOIL
	Sam	pling Date	01/04/2020
	Samı	oling Time	
Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na

Breakdown of Gravimetric Analysis (a)		
Mass of Sample	g	853.49
ACMs present*	type	
Mass of ACM in sample	g	
% ACM by mass	%	
% asbestos in ACM	%	
% asbestos in sample	%	
Breakdown of Detailed Gravimetric Analysis (b)	•	
% Amphibole bundles in sample	Mass %	na
% Chrysotile bundles in sample	Mass %	0.001
Prophylogen of DCOM Applysis (a)	<del> </del>	

Breakdown of Feore Analysis (c)				
% Amphibole fibres in sample	Mass %	na		
% Chrysotile fibres in sample	Mass %	na		
Breakdown of Potentially Respirable Fibre Analysis (d)				

Amphibole fibres	Fibres/g	na
Chrysotile fibres	Fibres/g	na

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



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

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Contract Title Prairie Site Ground Investigation Works

Lab No	1665589
Sample ID	PRAIRIE_AUK_TP124_SO_0150
Depth	1.50
Other ID	5
Sample Type	SOIL
Sampling Date	08/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.002
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.002
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)		•	
Mass of Sample		g	918.67
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	0.002
Breakdown of PCOM Analysis (c)		•	
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

\* Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

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Toct

Contract Title Prairie Site Ground Investigation Works

Lab No	1665133
Sample ID	PRAIRIE_AUK_TP172_SO_0800
Depth	0.80
Other ID	3
Sample Type	SOIL
Sampling Date	06/04/2020
Sampling Time	
nod Units	

rest	ivietnoa	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•		
Mass of Sample		g	782.89
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)	•	,	
% Amphibole bundles in sample		Mass %	0.001
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)	•		
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)	•		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

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<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

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Lab No	1665140
Sample ID	PRAIRIE_AUK_TP108_SO_0100
Depth	1.00
Other ID	5
Sample Type	SOIL
Sampling Date	06/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)		•	
Mass of Sample		g	1098.85
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	0.001
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)	<u>.</u>		
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Anal	ysis (d)	•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Toct

Contract Title Prairie Site Ground Investigation Works

Lab No	1665141
Sample ID	PRAIRIE_AUK_TP108_SO_0200
Depth	2.00
Other ID	8
Sample Type	SOIL
Sampling Date	06/04/2020
Sampling Time	

rest	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.002
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.002
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	761.41
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)	•		
% Amphibole bundles in sample		Mass %	0.002
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)	•		
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

Method

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665142
Sample ID	PRAIRIE_AUK_TP113_SO_0130
Depth	1.30
Other ID	5
Sample Type	SOIL
Sampling Date	06/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.005
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.005
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•	·	
Mass of Sample		g	715.05
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)	•	·	
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	0.005
Breakdown of PCOM Analysis (c)	·		
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665290
Sample ID	PRAIRIE_AUK_TP122_SO_0100
Depth	1.00
Other ID	3
Sample Type	SOIL
Sampling Date	08/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.002
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.002
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	<u>.</u>		
Mass of Sample		g	1153.64
ACMs present*		type	Cement
Mass of ACM in sample		g	0.13
% ACM by mass		%	0.01
% asbestos in ACM		%	15
% asbestos in sample		%	0.002
Breakdown of Detailed Gravimetric Analysis (b)	•		
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)	<u>.</u>		
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis	s (d)		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

1665451
0_0120
1.20
3
SOIL
04/2020

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.020
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.020
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•		
Mass of Sample		g	1191.05
ACMs present*		type	LFAD
Mass of ACM in sample		g	0.29
% ACM by mass		%	0.02
% asbestos in ACM		%	85.00
% asbestos in sample		%	0.020
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665452
Sample ID	PRARIE_AUK_TP149_SO_0130
Depth	1.30
Other ID	3
Sample Type	SOIL
Sampling Date	09/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	965.87
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665453
Sample ID	PRARIE_AUK_TP168_SO_0005
Depth	0.05
Other ID	1
Sample Type	SOIL
Sampling Date	09/04/2020
Sampling Time	
thod Units	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	1101.46
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)	·		
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analy	sis (d)		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665454
Sample ID	PRARIE_AUK_TP173_SO_0090
Depth	0.90
Other ID	3
Sample Type	SOIL
Sampling Date	09/04/2020
Sampling Time	
nod Units	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	952.28
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analy	/sis (d)		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665992
Sample ID	PRAIRIE_AUK_TP156A_SO_0030
Depth	0.30
Other ID	2
Sample Type	SOIL
Sampling Date	14/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	795.26
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1665995
Sample ID	PRAIRIE_AUK_TP163_SO_0120
Depth	1.20
Other ID	3
Sample Type	SOIL
Sampling Date	14/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)		•	
Mass of Sample		g	483.48
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)		•	
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)		•	
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1666343
Sample ID	PRAIRIE_AUK_TP135_SO_0130
Depth	1.30
Other ID	5
Sample Type	SOIL
Sampling Date	15/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.001
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	1011.94
ACMs present*		type	LFAD
Mass of ACM in sample		g	0.01
% ACM by mass		%	0.00
% asbestos in ACM		%	85.00
% asbestos in sample		%	0.001
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1666348
Sample ID	PRAIRIE_AUK_TP169_SO_0150
Depth	1.50
Other ID	3
Sample Type	SOIL
Sampling Date	15/04/2020
Sampling Time	
hod Units	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	1335.01
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1666611
Sample ID	PRAIRIE_AUK_TP139B_SO_0030
Depth	0.30
Other ID	3
Sample Type	SOIL
Sampling Date	16/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•		
Mass of Sample		g	780.11
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)	•		
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		,	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1666614
Sample ID	PRAIRIE_AUK_TP150_SO_0150
Depth	1.50
Other ID	3
Sample Type	SOIL
Sampling Date	16/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.009
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.009
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	932.90
ACMs present*		type	LFAD
Mass of ACM in sample		g	0.10
% ACM by mass		%	0.01
% asbestos in ACM		%	85
% asbestos in sample		%	0.009
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1666615
Sample ID	PRAIRIE_AUK_TP159_SO_0060
Depth	0.60
Other ID	3
Sample Type	SOIL
Sampling Date	16/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.002
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.002
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	695.59
ACMs present*		type	LFAD
Mass of ACM in sample		g	0.01
% ACM by mass		%	0.00
% asbestos in ACM		%	85
% asbestos in sample		%	0.002
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analys	sis (d)		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1666616
Sample ID	PRAIRIE_AUK_TP190A_SO_0110
Depth	1.10
Other ID	3
Sample Type	SOIL
Sampling Date	16/04/2020
Sampling Time	
hod Units	

ss %     0.003       ss %     0.003       ss %     na       ss %     na       res/g     na
ss % na
ss % na
res/g na
g 1052.76
type LFAD
g 0.04
% 0.00
% 85
% 0.003
ss % na
ss % na
ss % na
ss % na
res/g na
res/g na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Toct

Lab No	1667233
Sample ID	PRAIRIE_AUK_TP128_SO_0090
Depth	0.90
Other ID	3
Sample Type	SOIL
Sampling Date	17/04/2020
Sampling Time	
Method Units	

rest	ivietnoa	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	649.46
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1667236
Sample ID	PRAIRIE_AUK_TP147_SO_0150
Depth	1.50
Other ID	4
Sample Type	SOIL
Sampling Date	17/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	1033.16
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	<0.001
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Toct

Contract Title Prairie Site Ground Investigation Works

Lab No	1667238
Sample ID	PRAIRIE_AUK_TP157_SO_0080
Depth	0.80
Other ID	2
Sample Type	SOIL
Sampling Date	17/04/2020
Sampling Time	

Hnite

rest	ivietnoa	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•		
Mass of Sample		g	999.70
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	<0.001
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

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<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1667501
Sample ID	PRAIRIE_AUK_TP120A_SO_0100
Depth	1.00
Other ID	3
Sample Type	SOIL
Sampling Date	20/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)		•	
Mass of Sample		g	925.95
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)		•	
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	0.001
Breakdown of PCOM Analysis (c)		•	
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1667505
Sample ID	PRAIRIE_AUK_TP166_SO_0045
Depth	0.45
Other ID	3
Sample Type	SOIL
Sampling Date	20/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	·		
Mass of Sample		g	1405.15
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)	·		
% Amphibole bundles in sample		Mass %	0.001
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)	·		
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Anal	ysis (d)	<u> </u>	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1668120
Sample ID	PRAIRIE_AUK_TP102_SO_0300
Depth	3.00
Other ID	11
Sample Type	SOIL
Sampling Date	21/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	709.21
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analy	ysis (d)		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Cheff Rej 4251			
Contract Title Prairie Site Ground Investigation Works			
		Lab No	1668125
		Sample ID	PRAIRIE_AUK_TP111_SO_0150
		Depth	1.50
		Other ID	4
	Sai	mple Type	SOIL
	Sam	pling Date	22/04/2020
		oling Time	
Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.002
Gravimetric Quantification (a)	DETSC 1102	Mass %	0.002
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	na
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	825.28
ACMs present*		type	LFAD
Mass of ACM in sample		g	0.02
% ACM by mass		%	0.00
% asbestos in ACM		%	85
% asbestos in sample		%	0.002
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)			
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

\* Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1668130
Sample ID	PRAIRIE_AUK_TP152_SO_0200
Depth	2.00
Other ID	6
Sample Type	SOIL
Sampling Date	22/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.002
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.002
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•	•	
Mass of Sample		g	1135.68
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)		•	
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	0.002
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Ana	lysis (d)	•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1668559
Sample ID	PRAIRIE_AUK_TP184_SO_0030
Depth	0.30
Other ID	2
Sample Type	SOIL
Sampling Date	16/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)	•		
Mass of Sample		g	1256.23
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	<0.001
% Chrysotile bundles in sample		Mass %	na
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis	(d)		
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1668561
Sample ID	PRAIRIE_AUK_TP116_SO_0130
Depth	1.30
Other ID	3
Sample Type	SOIL
Sampling Date	23/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	942.18
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

Lab No	1668562
Sample ID	PRAIRIE_AUK_TP117_SO_0300
Depth	3.00
Other ID	8
Sample Type	SOIL
Sampling Date	23/04/2020
Sampling Time	

Test	Method	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	< 0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	<0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	883.57
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	<0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-

Our Ref 09146,20-09147,20-09149

Client Ref 4251

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Contract Title Prairie Site Ground Investigation Works

Lab No	1668869
Sample ID	PRAIRIE_AUK_TP144_SO_0080
Depth	0.80
Other ID	3
Sample Type	SOIL
Sampling Date	24/04/2020
Sampling Time	

Hnite

rest	ivietnoa	Units	
Total Mass% Asbestos (a+b+c)	DETSC 1102	Mass %	0.001
Gravimetric Quantification (a)	DETSC 1102	Mass %	na
Detailed Gravimetric Quantification (b)	DETSC 1102	Mass %	0.001
Quantification by PCOM (c)	DETSC 1102	Mass %	na
Potentially Respirable Fibres (d)	DETSC 1102	Fibres/g	na
Breakdown of Gravimetric Analysis (a)			
Mass of Sample		g	1140.96
ACMs present*		type	
Mass of ACM in sample		g	
% ACM by mass		%	
% asbestos in ACM		%	
% asbestos in sample		%	
Breakdown of Detailed Gravimetric Analysis (b)			
% Amphibole bundles in sample		Mass %	na
% Chrysotile bundles in sample		Mass %	0.001
Breakdown of PCOM Analysis (c)			
% Amphibole fibres in sample		Mass %	na
% Chrysotile fibres in sample		Mass %	na
Breakdown of Potentially Respirable Fibre Analysis (d)		•	
Amphibole fibres		Fibres/g	na
Chrysotile fibres		Fibres/g	na

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<sup>\*</sup> Denotes test or material description outside of UKAS accreditation. % asbestos in Asbestos Containing Materials (ACMs) is determined by by reference to HSG 264.

Recommended sample size for quantification is approximately 1kg # denotes deviating sample



#### **Information in Support of the Analytical Results**

20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149

Client Ref 4251

**Contract** Prairie Site Ground Investigation Works

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

		Date		Holding time exceeded for	Inappropriate container for
Lab No	Sample ID	Sampled	Containers Received	tests	tests
1663605	PRAIRIE AUK TP132 SO 0	02/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	130 1.30 SOIL		,		
1663606	PRAIRIE_AUK_TP131_SO_0	02/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	180 1.80 SOIL				
1663734	PRAIRIE_AUK_TP101_SO_0	01/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL				
1663735	PRAIRIE_AUK_TP101_SO_0	01/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	220 2.20 SOIL				
1663736	PRAIRIE_AUK_TP104_SO_0	01/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
4660707	150 1.50 SOIL	04/04/00			
1663737	PRAIRIE_AUK_TP105_SO_0	01/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1663978	250 2.50 SOIL	03/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1003978	PRAIRIE_AUK_BH104_SO_0 550 5.50 SOIL	03/04/20	GJ 250ffil X2, GJ 60ffil X2, P1 1L X2		
1665133	PRAIRIE_AUK_TP172_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1005155	080 0.80 SOIL	00/04/20	GJ 2301111 X2, GJ 001111 X2, F 1 1E X2		
1665134	PRAIRIE_AUK_TP175_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	080 0.80 SOIL				
1665135	PRAIRIE_AUK_TP175_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	180 1.80 SOIL		,		
1665136	PRAIRIE_AUK_TP178_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	080 0.80 SOIL				
1665137	PRAIRIE_AUK_BH106_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	550 5.50 SOIL				
1665138	PRAIRIE_AUK_TP107_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	180 1.80 SOIL				
1665139	PRAIRIE_AUK_TP107_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1665140	080 0.80 SOIL	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1003140	PRAIRIE_AUK_TP108_SO_0 100 1.00 SOIL	06/04/20	GJ 2301111 X2, GJ 601111 X2, P1 1L X2		
1665141	PRAIRIE_AUK_TP108_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1003111	200 2.00 SOIL	00,04,20	3, 230111 X2, 33 00111 X2, 1 1 12 X2		
1665142	PRAIRIE AUK TP113 SO 0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	130 1.30 SOIL	, ,	,		
1665143	PRAIRIE_AUK_TP175_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	080 0.80 LEACHATE				
1665286	PRAIRIE_AUK_BH103_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	250 2.50 SOIL				
1665287	PRAIRIE_AUK_SW1 0.00	09/04/20	PB 1L		
	WATER				
1665288	PRAIRIE_AUK_TP115_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
4665000	190 1.90 SOIL	00/01/05	DD 41		
1665289	PRAIRIE_AUK_TP115_SO_0	08/04/20	PB 1L		
	050 0.50 WATER				



#### **Information in Support of the Analytical Results**

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Contract Prairie Site Ground Investigation Works

		Date		Holding time exceeded for	Inappropriate container for
Lab No	Sample ID	Sampled	Containers Received	tests	tests
1665290	PRAIRIE_AUK_TP122_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL	, ,	,		
1665291	PRAIRIE_AUK_TP123_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	060 0.60 SOIL				
1665292	PRAIRIE_AUK_TP185_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	430 4.30 SOIL				
1665293	PRAIRIE_AUK_TP186_SO_0	07/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	050 0.50 SOIL				
1665294	PRAIRIE_AUK_TP186_SO_0	07/04/20	PB 1L x2		
	100 1.00 WATER				
1665295	PRAIRIE_AUK_TP188_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL				
1665450	PRARIE_AUK_TP121_SO_01	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	50 1.50 SOIL	/ /			
1665451	PRARIE_AUK_TP138_SO_01	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
4.665.452	20 1.20 SOIL	00/04/20	CL250 L 2 CL50 L 2 DT4L 2		
1665452	PRARIE_AUK_TP149_SO_01	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1005452	30 1.30 SOIL PRARIE AUK TP168 SO 00	00/04/20	CL2F0mly2 CLC0mly2 DT 11 y2		
1665453		09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1665454	05 0.05 SOIL PRARIE_AUK_TP173_SO_00	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1003434	90 0.90 SOIL	03/04/20	GJ 2301111 X2, GJ 001111 X2, F1 1E X2		
1665455	PRARIE_AUK_SURFACE1_S	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1005455	O 0000 SOIL	03/04/20	G 250111 X2, G 001111 X2, 1 1 12 X2		
1665582	PRAIRIE_AUK_TP108_SO_0	06/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	200 2.00 LEACHATE		, ,		
1665588	PRAIRIE_AUK_TP114_SO_0	07/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	090 0.90 SOIL				
1665589	PRAIRIE_AUK_TP124_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	150 1.50 SOIL				
1665590	PRAIRIE_AUK_TP174_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	080 0.80 SOIL				
1665591	PRAIRIE_AUK_TP174_SO_0	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	160 1.60 SOIL				
1665592	PRAIRIE_AUK_TP176_SO_0	07/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	090 0.90 SOIL				
1665593	PRAIRIE_AUK_TP177_SO_0	07/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	060 0.60 SOIL	07/04/00			
1665594	PRAIRIE_AUK_TP189_SO_0	07/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1005505	300 3.00 SOIL	07/04/20	CL2F0ml v2 CLC0ml v2 DT 11 v2		
1665595	PRAIRIE_AUK_TP114_SO_0	07/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1665610	DRAIDIE ALIK TRIZO SO O	00/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1002010	PRAIRIE_AUK_TP179_SO_0 140 1.40 SOIL	09/04/20	03 2301111 XZ, GJ 001111 XZ, F1 1L XZ		
1665611	PRAIRIE_AUK_TP179_SO_0	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1003011	200 2.00 SOIL	05,04,20	3, 230111 AZ, 3, 001111 AZ, F 1 1L AZ		
1665612	PRAIRIE_AUK_TP181_SO_0	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	060 0.60 SOIL	, -, -0	, 22 20		
1665613	PRAIRIE AUK TP182 SO 0	09/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	090 0.90 SOIL				



#### **Information in Support of the Analytical Results**

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20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-0761700, 20-07617

Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149 Client Ref 4251

1666616	PRAIRIE_AUK_TP190A_SO_	16/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2	
	0110 1.10 SOIL			



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149

Client Ref 4251

	Date		Holding time exceeded for Inappropriate contained		
Lab No	Sample ID	Sampled	<b>Containers Received</b>	tests	tests
1667231	PRAIRIE_AUK_BH105_SO_0	16/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	300 3.00 SOIL				
1667232	PRAIRIE_AUK_TP126_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	260 2.60 SOIL				
1667233	PRAIRIE_AUK_TP128_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	090 0.90 SOIL				
1667234	PRAIRIE_AUK_TP129_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	210 2.10 SOIL				
1667235	PRAIRIE_AUK_TP130_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL				
1667236	PRAIRIE_AUK_TP147_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	150 1.50 SOIL				
1667237	PRAIRIE_AUK_TP158_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	130 1.30 SOIL				
1667238	PRAIRIE_AUK_TP157_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	080 0.80 SOIL				
1667239	PRAIRIE_AUK_TP128_SO_0	17/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	090 0.90 LEACHATE				
1667501	PRAIRIE_AUK_TP120A_SO_	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	0100 1.00 SOIL	' '	,		
1667502	PRAIRIE_AUK_TP134_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL		, ,		
1667503	PRAIRIE_AUK_TP134_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	200 2.00 SOIL		, ,		
1667504	PRAIRIE_AUK_TP161_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL		, ,		
1667505	PRAIRIE_AUK_TP166_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	045 0.45 SOIL		, ,		
1667506	PRAIRIE_AUK_TP166_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	120 1.20 SOIL		, ,		
1667507	PRAIRIE_AUK_TP171_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	075 0.75 SOIL		, ,		
1667508	PRAIRIE_AUK_TP187_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	070 0.70 SOIL		, ,		
1668118	PRAIRIE_AUK_BH110_SO_0	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	300 3.00 SOIL				
1668119	PRAIRIE_AUK_TP102_SO_0	21/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL	,,			
1668120	PRAIRIE_AUK_TP102_SO_0	21/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1000120	300 3.00 SOIL	22,01,20	35 250 m A2, 35 30 m A2, 1 12 A2		
1668121	PRAIRIE_AUK_TP103_SO_0	21/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL	,,			
1668122	PRAIRIE_AUK_TP109_SO_0	21/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL	, , ,,	, 55 55 12, 11 22, 12		
1668123	PRAIRIE_AUK_TP110_SO_0	21/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
	100 1.00 SOIL	, 5-1, 2-0			
1668124	PRAIRIE_AUK_TP110_SO_0	21/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1000124	200 2.00 SOIL	21,04,20	33 233111 AZ, G3 001111 AZ, 1 1 1E AZ		
1668125	PRAIRIE_AUK_TP111_SO_0	22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1000123	150 1.50 SOIL	22/04/20	33 230111 AZ, GJ 001111 AZ, FT 1L AZ		
	130 1.30 30IL	Į.	I	I	I



20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-0761700, 20-07617

Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149 Client Ref 4251

1668126	PRAIRIE_AUK_TP112_SO_0	22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2
	150 1.50 SOIL		



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149 Client Ref 4251

		Date		Holding time exceeded for	Inappropriate container for	
150 1.50 SOIL   150	Lab No	Sample ID	Sampled	<b>Containers Received</b>	tests	tests
150 1.05 SOIL   150	1668127	PRAIRIE AUK TP119 SO 0	22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1568128   PRARIE, AUK, TP119 SO, 0   27/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   2   2   2   2   2   2   2   2   2			, , , ,	, ,		
250.2.5.05.0L 250.0.5.0L 250.0.5.	1668128		22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668130   PRAIRIE_AUK_TP135_SO_0   22/04/20   Gi 250mi x2, Gi 60mi x2, PT1L x2   200 200 501   10 100 50ll   10			, , , ,	, ,		
OSO D. OS DOIL	1668129		22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1688130   PRAIRIE_AUK_TP152_SO_0   22/04/20   Gi 250ml x2, Gi 60ml x2, PT 1L x2			' '	,		
200 2.00 SOIL	1668130		22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668131   PRAIRIE_AUK_PT953_SO_0   22/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2			' '	,		
10 1.10 501L   20/04/20   31 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   32 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   20/04/20   30 250ml x2, G1 60ml x2, PT 11 x2   30 250ml x2, G1 60ml x2, PT 11 x2   30 250ml x2, G1 60ml x2, PT 11 x2   30 250ml x2, G1 60ml x2, PT 11 x2   30 250ml x2, G1 60ml x2, PT 11 x2   30 25	1668131		22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668132   PRAIRIE_AUK_TP154_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2			, , , ,	, ,		
1668133   PRAIRE_AUK_TP15_SO_0   21/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   CJ 250ml x2, GJ 250ml x2, GJ 60ml x2, PT 1L x2   CJ 250ml x2, GJ 250ml x2, GJ 60ml x2, PT 1L x2   CJ 250ml x2, GJ 250ml x2, G	1668132	<b>-</b>	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668133						
1668134   PRAIRE_AUK_TP16_50_0   21/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   CJ 250ml x2, GJ 250ml x2, GJ 60ml x2, PT 1L x2   CJ 250ml x2, GJ 250ml x2, GJ 60ml x2, PT 1L x2   CJ 250ml x2, GJ 250ml x2, G	1668133		21/04/20	GI 250ml x2. GI 60ml x2. PT 11 x2		
1668134   PRAIRE_AUK_TP160_SO_0   21/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   D10.100 SOIL   1668135   PRAIRE_AUK_TP170_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   D10.100 SOIL   1668136   PRAIRE_AUK_TP110_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   D10.100 LOC LEACHATE   1668137   PRAIRE_AUK_TP110_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   D10.100 LOC LEACHATE   1668557   PRAIRE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   D10.100 LOC LEACHATE   1668557   PRAIRE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   D10.100 LOC LEACHATE   D10.100 LEA	1000100		21,01,20	65 250 m A2, 65 00 m A2, 1 1 12 A2		
1668135   PRAIRIE_AUK_TP170_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   100 1.00 50ll   1668136   PRAIRIE_AUK_TP110_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   100 1.00 1.00 1.00 1.00 1.00 1.00 1.0	1668134		21/04/20	GJ 250ml x2. GJ 60ml x2. PT 1L x2		
1668135   PRAIRIE_AUK_TP170_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2			,,			
100 1.00 SOIL   100 1.00 SOIL   100 1.00 SOIL   100 1.00 LEACHATE   1688557   PRAIRIE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   100 1.00 SOIL   100 1.00 LEACHATE   100 1.00 SOIL   1068558   PRAIRIE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   160 1.00	1668135		20/04/20	GI 250ml x2. GI 60ml x2. PT 11 x2		
1668136   PRAIRIE_AUK_TP110_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   100 1.00 LEACHATE   1668137   PRAIRIE_AUK_TP160_SO_0   20/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   100 1.00 LEACHATE   1668557   PRAIRIE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668558   PRAIRIE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668559   PRAIRIE_AUK_TP164_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668559   PRAIRIE_AUK_TP184_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668560   PRAIRIE_AUK_TP106_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668561   PRAIRIE_AUK_TP116_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668562   PRAIRIE_AUK_TP116_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668563   PRAIRIE_AUK_TP117_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668563   PRAIRIE_AUK_TP118_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668564   PRAIRIE_AUK_TP118_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668564   PRAIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668565   PRAIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668566   PRAIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668566   PRAIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668566   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668566   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668567   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668568   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668568   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668568   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668568   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668569   PRAIRIE_AUK_TP143_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668569   PRAIRIE_AUK_TP143_SO_0   2	1000133		20,04,20	G5 250111 X2, G5 00111 X2, 1 1 12 X2		
100 1.00 LEACHATE	1668136		20/04/20	GI 250ml x2 GI 60ml x2 PT 11 x2		
1668137   PRAIRIE_AUK_TP170_SO_0	1000130		20,04,20	G5 2301111 X2, G5 001111 X2, 1 1 12 X2		
100 1.00 LEACHATE	1668137		20/04/20	GL250ml v2 GL60ml v2 PT 1L v2		
1668557 PRAIRIE_AUK_TP164_SO_0 070 0.70 SOIL 1668558 PRAIRIE_AUK_TP164_SO_0 130 1.30 SOIL 1668559 PRAIRIE_AUK_TP184_SO_0 030 0.30 SOIL 1668560 PRAIRIE_AUK_TP160_SO_0 1668561 PRAIRIE_AUK_TP165_O 300 3.00 SOIL 1668562 PRAIRIE_AUK_TP116_SO_0 300 3.00 SOIL 1668563 PRAIRIE_AUK_TP116_SO_0 300 3.00 SOIL 1668564 PRAIRIE_AUK_TP116_SO_0 300 3.00 SOIL 1668565 PRAIRIE_AUK_TP116_SO_0 300 3.00 SOIL 1668566 PRAIRIE_AUK_TP116_SO_0 123/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 120 1.20 SOIL 1668565 PRAIRIE_AUK_TP117_SO_0 300 3.00 SOIL 1668566 PRAIRIE_AUK_TP127A_SO_ 0280 2.80 SOIL 1668567 PRAIRIE_AUK_TP141_SO_0 100 1.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 223/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.00 SOIL 1668567 PRAIRIE_AUK_TP127A_SO_ 0280 2.80 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 223/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.00 SOIL 1668567 PRAIRIE_AUK_TP141_SO_0 223/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 223/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 220 2.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 200 0.90 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 200 0.90 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL 1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.00 SOIL	1000137		20,04,20	GJ 2301111 X2, GJ 001111 X2, 1 1 12 X2		
1668558   PARIRIE_AUK_TP184_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668559   PARIRIE_AUK_TP184_SO_0   16/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668559   PARIRIE_AUK_TP184_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   100 1.00 SOIL   1668561   PARIRIE_AUK_TP116_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   1668562   PARIRIE_AUK_TP116_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   1668563   PARIRIE_AUK_TP117_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   1668564   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   1668565   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668566   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668566   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668566   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 SOIL   1668568   PARIRIE_AUK_TP143_SO_0   23/04/20   GJ 250	1668557		16/04/20	GI 250ml x2 GI 60ml x2 PT 11 x2		
1668558 PRAIRIE_AUK_TP164_SO_0 16/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 030 0.30 SOIL 1608550 PRAIRIE_AUK_TP164_SO_0 100 1.00 SOIL 1608560 PRAIRIE_AUK_TP165_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.00 SOIL 1608561 PRAIRIE_AUK_TP116_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 130 1.30 SOIL 1608562 PRAIRIE_AUK_TP117_SO_0 300 3.00 SOIL 1608563 PRAIRIE_AUK_TP118_SO_0 120 1.20 SOIL 1608564 PRAIRIE_AUK_TP118_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 120 1.20 SOIL 1608565 PRAIRIE_AUK_TP17_SO_0 030 0.30 SOIL 1608565 PRAIRIE_AUK_TP17_SO_0 030 SOIL 1608565 PRAIRIE_AUK_TP17_SO_0 030 SOIL 1608566 PRAIRIE_AUK_TP17_SO_0 030 SOIL 1608560 PRAIRIE_AUK_TP17_SO_0 030 SOIL 1608560 PRAIRIE_AUK_TP17_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2	1000337		10,04,20	G5 2301111 X2, G5 001111 X2, 1 1 12 X2		
130 1.30 SOIL	1668558		16/04/20	GL250ml v2 GL60ml v2 PT 1L v2		
1668559   PRAIRIE_AUK_TP184_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1608561   PRAIRIE_AUK_TP106_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   23/04/20   23/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   23/04/20   23/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   23/04/20   23/04/20   23/04/20   23/04/20   23/04/20   23/04/20   23/04/20   23/04/20   23/04/20   23/04	1000330		10,04,20	GJ 2301111 X2, GJ 001111 X2, 1 1 12 X2		
1668560   PRAIRIE_AUK_TP116_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 1.00 SOIL   1668561   PRAIRIE_AUK_TP116_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   130 1.30 SOIL   1668562   PRAIRIE_AUK_TP117_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   1668563   PRAIRIE_AUK_TP118_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   1668564   PRAIRIE_AUK_TP118_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   1668565   PRAIRIE_AUK_TP127_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.20 SOIL   1668566   PRAIRIE_AUK_TP147_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 1.00 SOIL   1668566   PRAIRIE_AUK_TP140_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 1.00 1.00 SOIL   1668567   PRAIRIE_AUK_TP141_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668568   PRAIRIE_AUK_TP141_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668568   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668569   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668560   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668560   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668560   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   1668570   PRAIRIE_AUK_TP143_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   120 0.200 SOIL   120 0.200 S	1668559		16/04/20	GL250ml v2 GL60ml v2 PT 1L v2		
1668560   PRAIRIE_AUK_TP106_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2	1000333		10,04,20	G5 2301111 X2, G5 001111 X2, 1 1 12 X2		
100 1.00 SOIL  1668561 PRAIRIE_AUK_TP116_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL  1668562 PRAIRIE_AUK_TP117_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL  1668563 PRAIRIE_AUK_TP118_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 120 1.20 SOIL  1668564 PRAIRIE_AUK_TP127_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 030 0.30 SOIL  1668565 PRAIRIE_AUK_TP127A_SO_ 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 030 0.30 SOIL  1668566 PRAIRIE_AUK_TP127A_SO_ 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 0280 2.80 SOIL  1668566 PRAIRIE_AUK_TP140_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.00 SOIL  1668567 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 2.00 SOIL  1668568 PRAIRIE_AUK_TP141_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 2.00 SOIL  1668569 PRAIRIE_AUK_TP142_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 100 1.50 SOIL  1668569 PRAIRIE_AUK_TP142_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 150 1.50 SOIL  1668570 PRAIRIE_AUK_TP143_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2 150 1.50 SOIL	1668560		23/04/20	GI 250ml x2 GI 60ml x2 PT 11 x2		
1668561       PRAIRIE_AUK_TP116_SO_0 130 1.30 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP117_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP118_SO_0 120 1.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP127_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP127A_SO_0 300 0.30 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP127A_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP140_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP140_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP142_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP142_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP142_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP142_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP142_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP143_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 300 3.00 SOIL       9RAIRIE_AUK_TP143_SO_0 300 3.00 SOIL	1000500		23,04,20	G5 250111 X2, G5 00111 X2, 1 1 12 X2		
130 1.30 SOIL	1668561		23/04/20	GI 250ml x2 GI 60ml x2 PT 11 x2		
1668562       PRAIRIE_AUK_TP117_SO_0 300 3.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 2 2 3.00 4.00 300 3.00 SOIL       23/04/20 6J 250ml x2, GJ 60ml x2, PT 1L x2 3.00 5.01 20 1.20 SOIL       23/04/20 6J 250ml x2, GJ 60ml x2, PT 1L x2 3.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00	1000301		23,04,20	G5 250111 X2, G5 00111 X2, 1 1 12 X2		
300 3.00 SOIL	1668562		23/04/20	GI 250ml x2. GI 60ml x2. PT 11 x2		
1668563       PRAIRIE_AUK_TP118_SO_0 123/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2	1000001		23,01,20	65 250 m A2, 65 00 m A2, 1 1 12 A2		
120 1.20 SOIL	1668563		23/04/20	GI 250ml x2. GI 60ml x2. PT 11 x2		
1668564       PRAIRIE_AUK_TP127_SO_0 030 0.30 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 030 0.30 SOIL       9 PRAIRIE_AUK_TP127A_SO_0 23/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 0280 2.80 SOIL       9 PRAIRIE_AUK_TP140_SO_0 100 1.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1L x2 100 1.00 SOIL       9 PRAIRIE_AUK_TP141_SO_0 200 23/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1L x2 1.00 1.00 SOIL       9 PRAIRIE_AUK_TP141_SO_0 200 23/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1.00 1.00 SOIL       9 PRAIRIE_AUK_TP142_SO_0 200 23/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1.00 SOIL       9 PRAIRIE_AUK_TP142_SO_0 200 23/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1.00 SOIL       9 PRAIRIE_AUK_TP142_SO_0 200 23/04/20       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1.00 SOIL       9 PRAIRIE_AUK_TP143_SO_0 200 23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1.00 SOIL       9 PRAIRIE_AUK_TP143_SO_0 200 23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 1.00 SOIL       9 PRAIRIE_AUK_TP143_SO_0 200 23/04/20       9 PRAIRIE_AU	2000000		23,01,20	65 250 m A2, 65 00 m A2, 1 1 12 A2		
1668565   PRAIRIE_AUK_TP127A_SO_   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2	1668564		23/04/20	GI 250ml x2. GI 60ml x2. PT 11 x2		
1668565       PRAIRIE_AUK_TP127A_SO_ 0280 2.80 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2       9         1668566       PRAIRIE_AUK_TP140_SO_0 100 1.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2       9         1668567       PRAIRIE_AUK_TP141_SO_0 200 2.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2       9         1668568       PRAIRIE_AUK_TP142_SO_0 200 0.90 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.90 SOIL       9         1668569       PRAIRIE_AUK_TP142_SO_0 150 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 200 0.90 SOIL       9         1668570       PRAIRIE_AUK_TP143_SO_0 23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2 0.90 0.90 SOIL       9						
0280 2.80 SOIL	1668565		23/04/20	GI 250ml x2. GI 60ml x2. PT 11 x2		
1668566       PRAIRIE_AUK_TP140_SO_0 100 1.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2       9 FT 1L x2	1000000		23,01,20	65 250 m A2, 65 00 m A2, 1 1 12 A2		
100 1.00 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   200 2.00 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   200 2.00 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   200 0.90 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   200 0.90 SOIL   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   20/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   20/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   20/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   20/04/20   23/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   20/04/20   23/04/20   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   20/04/20   23/04/20	1668566		23/04/20	GJ 250ml x2. GJ 60ml x2. PT 1L x2		
1668567       PRAIRIE_AUK_TP141_SO_0 200 2.00 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2       98 25			-,,	, 11 32		
200 2.00 SOIL	1668567		23/04/20	GJ 250ml x2, GJ 60ml x2. PT 1L x2		
1668568       PRAIRIE_AUK_TP142_SO_0 090 0.90 SOIL       23/04/20       GJ 250ml x2, GJ 60ml x2, PT 1L x2       97 1L x2       98 23/04/20       98 250ml x2, GJ 60ml x2, PT 1L x2       98			,,			
090 0.90 SOIL   1668569   PRAIRIE_AUK_TP142_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   150 1.50 SOIL   GJ 250ml x2, GJ 60ml x2, PT 1L x2   1668570   PRAIRIE_AUK_TP143_SO_0   23/04/20   GJ 250ml x2, GJ 60ml x2, PT 1L x2   GJ 60ml x2, PT 1L	1668568		23/04/20	GJ 250ml x2. GJ 60ml x2. PT 11 x2		
1668569     PRAIRIE_AUK_TP142_SO_0 150 1.50 SOIL     23/04/20     GJ 250ml x2, GJ 60ml x2, PT 1L x2     SOIL       1668570     PRAIRIE_AUK_TP143_SO_0 PRAIRIE_AUK_TP143_SO_0     23/04/20     GJ 250ml x2, GJ 60ml x2, PT 1L x2     SOIL			, , ,	, 55 55 55 55 55 55 55 55 55 55 55 55 55		
150 1.50 SOIL     150 1.50 SOIL       1668570     PRAIRIE_AUK_TP143_SO_0     23/04/20     GJ 250ml x2, GJ 60ml x2, PT 1L x2	1668569		23/04/20	GJ 250ml x2. GJ 60ml x2. PT 11 x2		
1668570 PRAIRIE_AUK_TP143_SO_0 23/04/20 GJ 250ml x2, GJ 60ml x2, PT 1L x2			-,,	,,		
	1668570		23/04/20	GJ 250ml x2, GJ 60ml x2. PT 1L x2		
				, , , , , , , , , , , , , , , , , , , ,		



20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-0761700, 20-07617

Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149 Client Ref 4251

1668571	PRAIRIE_AUK_TP143_SO_0	23/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2
	160 1.60 SOIL		



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149 Client Ref 4251

	Date			Holding time exceeded for Inappropriate container for	
Lab No	Sample ID	Sampled	<b>Containers Received</b>	tests	tests
1668572	PRAIRIE_AUK_TP151_SO_0 120 1.20 SOIL	23/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668573	PRAIRIE_AUK_TP140_SO_0 100 1.00 LEACHATE	23/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668574	PRAIRIE_AUK_TP141_SO_0 200 2.00 LEACHATE	23/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668575	PRAIRIE_AUK_TP142_SO_0	23/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668657	PRAIRIE_AUK_TP139_SO_0	16/04/20	No containers logged		
1668869	PRAIRIE_AUK_TP144_SO_0	24/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1668870	080 0.80 SOIL  PRAIRIE_AUK_TP144_SO_0 080 0.80 LEACHATE	24/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1669251	PRAIRIE_AUK_TP112_SO_0 210 2.10 SOIL	22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1669252	PRAIRIE_AUK_TP112_SO_0 210 2.10 LEACHATE	22/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1670142	PRAIRIE_AUK_TP194A_SO_ 0140 1.40 SOIL	29/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1670143	PRAIRIE_AUK_TP196A_SO_ 0140 1.40 SOIL	29/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1670144	PRAIRIE_AUK_TP201_SO_0 360 3.60 SOIL	28/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1670145	PRAIRIE_AUK_TP201_SO_0 360 3.60 LEACHATE	28/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1670502	PRAIRIE_AUK_TP193_SO_0 080 0.80 SOIL	30/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1671485	PRAIRIE_AUK_BH102_GW_ 050520 WATER	05/05/20	GB 1L x3, GV, PB 1L		
1671486	PRAIRIE_AUK_BH103_GW_ 050520 WATER	05/05/20	GB 1L x3, GV, PB 1L		
1671487	PRAIRIE_AUK_BH104_GW_ 050520 WATER	05/05/20	GB 1L x3, GV, PB 1L		
1671488	PRAIRIE_AUK_BH105_GW_ 050520 WATER	05/05/20	GB 1L x3, GV, PB 1L		
1671489	PRAIRIE_AUK_BH107_GW_ 050520 WATER	05/05/20	GB 1L x3, GV, PB 1L		
1671490	PRAIRIE_AUK_BH109_GW_ 050520 WATER	05/05/20	GB 1L x3, GV, PB 1L		
1671899	PRAIRIE_AUK_BH101S_GW _060520 WATER	06/05/20	GB 1L x2, GV, PB 1L		
1671900	PRAIRIE_AUK_BH101D_GW _060520 WATER	06/05/20	GB 1L x2, GV, PB 1L		



20-07033, 20-07070, 20-07108, 20-07266, 20-07289, 20-07308, 20-07410, 20-07470, 20-07526, 20-07617, 20-07658, 20-07617, 20-0

Our Ref 07758,20-07838,20-07839,20-07890,20-08118,20-08189,20-08381,20-09141,20-09144,20-09146,20-09147,20-09149 Client Ref 4251

**Contract** Prairie Site Ground Investigation Works

		Date		Holding time exceeded for	Inappropriate container for
Lab No	Sample ID	Sampled	<b>Containers Received</b>	tests	tests
1671901	PRAIRIE_AUK_BH106_GW_ 060520 WATER	06/05/20	GB 1L x2, GV, PB 1L		
1671902	PRAIRIE_AUK_BH108S_GW _060520 WATER	06/05/20	GB 1L x2, GV, PB 1L		
1671903	PRAIRIE_AUK_BH108D_GW _060520 WATER	06/05/20	GB 1L x2, GV, PB 1L		
1671904	PRAIRIE_AUK_BH110_GW_ 060520 WATER	06/05/20	GB 1L x2, GV, PB 1L		
1675436	PRAIRIE_AUK_TP123_SO_0 060 0.60 LEACHATE	08/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1675439	PRAIRIE_AUK_TP120A_SO_ 0100 1.00 LEACHATE	20/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1675441	PRAIRIE_AUK_TP103_SO_0 100 1.00 LEACHATE	20/04/20	No containers logged		
1675442	PRAIRIE_AUK_TP194A_SO_ 0140 1.40 LEACHATE	29/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1675443	PRAIRIE_AUK_TP196A_SO_ 0140 1.40 LEACHATE	29/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1675450	PRAIRIE_AUK_BH101_SO_0 300 3.00 SOIL	27/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		
1675451	PRAIRIE_AUK_BH107_SO_0 300 3.00 SOIL	24/04/20	GJ 250ml x2, GJ 60ml x2, PT 1L x2		

Key: G-Glass P-Plastic J-Jar T-Tub B-Bottle V-Vial

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.



20-07033,20-07070,20-07108,20-07266,20-07289,20-07308,20-07410,20-07470,20-07526,20-07617,20-07658,20-

 $\textit{Our Ref} \quad 07758, 20-07838, 20-07839, 20-07890, 20-08118, 20-08189, 20-08381, 20-09141, 20-09144, 20-09146, 20-09147, 20-09149, 20-0$ 

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 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



#### **Appendix A - Details of Analysis**

			Limit of	Sample			
Method	Parameter	Units	Detection	Preparation	Sub-Contracted	UKAS	MCERTS
DETSC 2002	Organic matter	%	0.1	Air Dried	No	Yes	Yes
DETSC 2003	Loss on ignition	%	0.01	Air Dried	No	Yes	Yes
DETSC 2008	рН	pH Units	1	Air Dried	No	Yes	Yes
DETSC 2024	Sulphide	mg/kg	10	Air Dried	No	Yes	Yes
DETSC 2076	Sulphate Aqueous Extract as SO4	mg/l	10	Air Dried	No	Yes	Yes
DETSC 2084	Total Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2084	Total Organic Carbon	%	0.5	Air Dried	No	Yes	Yes
DETSC 2119	Ammoniacal Nitrogen as N	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide free	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Cyanide total	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC 2130	Phenol - Monohydric	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC 2130	Thiocyanate	mg/kg	0.6	Air Dried	No	Yes	Yes
DETSC 2321	Total Sulphate as SO4	%	0.01	Air Dried	No	Yes	Yes
DETSC 2325	Mercury	mg/kg	0.05	Air Dried	No	Yes	Yes
DETSC 3049	Sulphur (free)	mg/kg	0.75	Air Dried	No	Yes	Yes
DETSC2123	Boron (water soluble)	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Arsenic	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Barium	mg/kg	1.5	Air Dried	No	Yes	Yes
DETSC2301	Beryllium	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Cadmium Available	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cadmium	mg/kg	0.1	Air Dried	No	Yes	Yes
DETSC2301	Cobalt	mg/kg	0.7	Air Dried	No	Yes	Yes
DETSC2301	Chromium	mg/kg	0.15	Air Dried	No	Yes	Yes
DETSC2301	Copper	mg/kg	0.2	Air Dried	No	Yes	Yes
DETSC2301	Manganese	mg/kg	20	Air Dried	No	Yes	Yes
DETSC2301	Molybdenum	mg/kg	0.4	Air Dried	No	Yes	Yes
DETSC2301	Nickel	mg/kg	1	Air Dried	No	Yes	Yes
DETSC2301	Lead	mg/kg	0.3	Air Dried	No	Yes	Yes
DETSC2301	Selenium	mg/kg	0.5	Air Dried	No	Yes	Yes
DETSC2301	Zinc	mg/kg	1	Air Dried	No	Yes	Yes
DETSC 3072	Ali/Aro C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	1.2	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C12-C16	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	1.5	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aliphatic C21-C35	mg/kg	3.4	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	0.9	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C12	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C10-C35	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16	mg/kg	0.5	As Received	No	Yes	Yes
DETSC 3072	Aromatic C12-C16 Aromatic C16-C21	mg/kg	10	As Received	No	Yes	Yes
DETSC 3072 DETSC 3072	Aromatic C16-C21 Aromatic C16-C21	mg/kg	0.6	As Received	No	Yes	Yes
DETSC 3072	Aromatic C21-C25	mg/kg mg/kg	10 1.4	As Received As Received	No No	Yes Yes	Yes Yes
DETSC 3072	Aromatic C21-C35			As Received		Yes	
DETS 062	Benzene	mg/kg mg/kg	1.4 0.01	As Received	No No	Yes	Yes Yes
DETS 062			0.01				
DETS 062 DETS 062	Ethylbenzene Toluene	mg/kg mg/kg	0.01	As Received As Received	No No	Yes Yes	Yes Yes
DETS 062 DETS 062	Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 062 DETS 062	m+p Xylene	mg/kg mg/kg	0.01	As Received	No No	Yes	Yes
DETS 062 DETS 062	o Xylene	mg/kg	0.01	As Received	No	Yes	Yes
DETS 002 DETSC 3311	C10-C24 Diesel Range Organics (DRO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311 DETSC 3311	C24-C40 Lube Oil Range Organics (LORO)	mg/kg	10	As Received	No	Yes	Yes
DETSC 3311 DETSC 3311	EPH (C10-C40)	mg/kg	10	As Received	No	Yes	Yes
DE 13C 3311	LI II (CIO-C <del>1</del> 0)	1118/ VB	10	AS NECEIVED	INO	163	163

Limit of

Sample



#### **Appendix A - Details of Analysis**

			Limit of	Sample			
Method	Parameter	Units	Detection	Preparation	<b>Sub-Contracted</b>	UKAS	<b>MCERTS</b>
DETSC 3303	Acenaphthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Acenaphthylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(a)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(b)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(k)fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Benzo(g,h,i)perylene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Dibenzo(a,h)anthracene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Fluoranthene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Indeno(1,2,3-c,d)pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Naphthalene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Phenanthrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3303	Pyrene	mg/kg	0.03	As Received	No	Yes	Yes
DETSC 3401	PCB 28 + PCB 31	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 52	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 101	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 118	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 153	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 138	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB 180	mg/kg	0.01	As Received	No	Yes	Yes
DETSC 3401	PCB Total	mg/kg	0.01	As Received	No	Yes	Yes

Method details are shown only for those determinands listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS. No Recovery Factors are used in the determination of results. Results reported assume 100% recovery. Full method statements are available on request.



Certificate Number 20-12223-1

20-Jul-20

Client Allied Exploration & Geotechnics Limited

Unit 25

Stella Gill Industrial Estate

Pelton Fell DH2 2RG

Our Reference 20-12223-1

Client Reference 4251

Order No (not supplied)

Contract Title Prairie Site Ground Investigation Works

Description 12 Water samples.

Date Received 06-Jul-20

Date Started 06-Jul-20

Date Completed 20-Jul-20

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

#### Notes This report supersedes 20-12223, 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





Our Ref 20-12223-1 Client Ref 4251

Contract Title Prairie Site Grot	and investigation v	VOIKS	Lab No	1694889	1694890
				PRAIRIE_AUK_BH101S_G	PRAIRIE_AUK_BH101D_G
		Sa	mple ID	W_010720	W_010720
			Depth	1.69-10.00	1.64-16.50
			Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	01/07/2020	01/07/2020
		Sampl	ing Time	n/s	n/s
Test	Method	LOD	Units		
Metals					
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	6.9	3.1
Boron, Dissolved	DETSC 2306*	12	ug/l	570	430
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	80	110
Chromium, Total	DETSC 2306*	0.25	ug/l	0.51	0.31
Copper, Dissolved	DETSC 2306	0.4	ug/l	< 0.4	0.4
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.21	< 0.09
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.03	0.02
Nickel, Dissolved	DETSC 2306	0.5	ug/l	4.6	3.3
Sodium, Dissolved	DETSC 2306	0.07	mg/l	210	270
Zinc, Dissolved	DETSC 2306	1.3	ug/l	31	270
Inorganics	<u>'</u>	l l			
pH	DETSC 2008		рН	8.4	7.9
Cyanide, Total	DETSC 2130	40	ug/l	1400	1300
Cyanide, Free	DETSC 2130	20	ug/l	53	50
Thiocyanate	DETSC 2130	20	ug/l	280	340
Dissolved Organic Carbon	DETSC 2085	2	mg/l	8.9	9.0
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.95	1.1
Chloride	DETSC 2055	0.1	mg/l	200	210
Nitrate as N	*	0.1	mg/l	< 0.10	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	0.9	1.2
Sulphate as SO4	DETSC 2055	0.1	mg/l	430	590
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84
Petroleum Hydrocarbons	•				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	1.2	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	1.7	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	6.8	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	9.6	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	19	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
<u> </u>			. 0, .		



Contract Title Pra	airie Site Ground Investigation W	/orks			
			Lab No	1694889	1694890
				PRAIRIE_AUK_BH101S_G	PRAIRIE_AUK_BH101D_G
		Sa	mple ID	W_010720	W_010720
			Depth	1.69-10.00	1.64-16.50
		(	Other ID	300	300
		Samı	ole Type	EW	EW
		Sampli	ing Date	01/07/2020	01/07/2020
		Sampli	ng Time	n/s	n/s
Test	Method	LOD	Units		
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	19	< 10



Client Ref 4251					
Contract Title Prairie Site	Ground Investigation V	Vorks			
			Lab No	1694889	1694890
				PRAIRIE_AUK_BH101S_G	PRAIRIE_AUK_BH101D_G
		Sa	ample ID	W_010720	W_010720
			Depth	1.69-10.00	1.64-16.50
			Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	01/07/2020	01/07/2020
		Sampl	ing Time	n/s	n/s
Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	2.2	0.16
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	1.4	0.11
Fluorene	DETSC 3304	0.01	ug/l	0.05	0.05
Phenanthrene	DETSC 3304	0.01	ug/l	0.09	0.07
Anthracene	DETSC 3304	0.01	ug/l	0.04	0.03
Fluoranthene	DETSC 3304	0.01	ug/l	0.05	0.05
Pyrene	DETSC 3304	0.01	ug/l	0.06	0.05
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.03
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	0.02
PAH Total	DETSC 3304	0.2	ug/l	3.9	0.66
Phenols	·	·			
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



Our Ref 20-12223-1 Client Ref 4251

OTRS		
Lab No	1694891	1694892
	PRAIRIE_AUK_BH102_GW	PRAIRIE_AUK_BH103_GW
Sample ID	_020720	_010720
Depth	0.90-7.20	1.92-8.50
Other ID	300	300
Sample Type	EW	EW
<b>Sampling Date</b>	02/07/2020	01/07/2020
<b>Sampling Time</b>	n/s	n/s
LOD Units		

Test  Metals  Arsenic, Dissolved  Boron, Dissolved  Cadmium, Dissolved  Calcium, Dissolved  Chromium, Total  Copper, Dissolved  Lead, Dissolved  Mercury, Dissolved  Nickel, Dissolved  Sodium, Dissolved  Zinc, Dissolved  Inorganics	DETSC 2306 DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306* DETSC 2306	0.16 12 0.03 0.09 0.25 0.4 0.09	ug/l ug/l ug/l ug/l mg/l ug/l	0.74 62 0.12 210 0.97	1.2 310 0.04
Arsenic, Dissolved Boron, Dissolved Cadmium, Dissolved Calcium, Dissolved Chromium, Total Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306	12 0.03 0.09 0.25 0.4 0.09	ug/l ug/l mg/l ug/l ug/l	62 0.12 210	310 0.04
Boron, Dissolved Cadmium, Dissolved Calcium, Dissolved Chromium, Total Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306	12 0.03 0.09 0.25 0.4 0.09	ug/l ug/l mg/l ug/l ug/l	62 0.12 210	310 0.04
Cadmium, Dissolved Calcium, Dissolved Chromium, Total Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306 DETSC 2306* DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306	0.03 0.09 0.25 0.4 0.09	ug/l mg/l ug/l ug/l	0.12 210	0.04
Calcium, Dissolved Chromium, Total Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306  DETSC 2306*  DETSC 2306  DETSC 2306  DETSC 2306  DETSC 2306  DETSC 2306	0.09 0.25 0.4 0.09	mg/l ug/l ug/l	210	
Chromium, Total Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306* DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306	0.25 0.4 0.09	ug/l ug/l		× 0.00
Copper, Dissolved Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306 DETSC 2306 DETSC 2306 DETSC 2306	0.4 0.09	ug/l	0.97	< 0.09
Lead, Dissolved Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306 DETSC 2306 DETSC 2306	0.09		3.37	1.9
Mercury, Dissolved Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306 DETSC 2306			1.6	1.8
Nickel, Dissolved Sodium, Dissolved Zinc, Dissolved Inorganics	DETSC 2306	0.01	ug/l	< 0.09	< 0.09
Sodium, Dissolved Zinc, Dissolved Inorganics		0.01	ug/l	0.17	0.13
Zinc, Dissolved Inorganics	DETCC 220C	0.5	ug/l	8.3	0.6
Inorganics	DETSC 2306	0.07	mg/l	550	530
<u> </u>	DETSC 2306	1.3	ug/l	2.8	4.9
рН	DETSC 2008		рН	12.4	9.2
Cyanide, Total	DETSC 2130	40	ug/l	< 40	250
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	160	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	13	7.3
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.86	0.35
Chloride	DETSC 2055	0.1	mg/l	45	59
Nitrate as N	*	0.1	mg/l	< 0.10	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	2.9	0.5
Sulphate as SO4	DETSC 2055	0.1	mg/l	130	310
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0



CHETTE NEJ	7231					
Contract Title	Prairie Site Grour	nd Investigation V	Vorks			
				Lab No	1694891	1694892
					PRAIRIE_AUK_BH102_GW	PRAIRIE_AUK_BH103_GW
			Sa	mple ID	_020720	_010720
				Depth	0.90-7.20	1.92-8.50
			(	Other ID	300	300
			Samı	ole Type	EW	EW
			Sampli	ing Date	02/07/2020	01/07/2020
			Sampli	ng Time	n/s	n/s
Test		Method	LOD	Units		
Aromatic C21-C3	35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	5	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Tota	al	DETSC 3072*	10	ug/l	< 10	< 10



Our Ref 20-12223-1 Client Ref 4251

Lab No	1694891	1694892
	PRAIRIE_AUK_BH102_GW	PRAIRIE_AUK_BH103_GW
Sample ID	_020720	_010720
Depth	0.90-7.20	1.92-8.50
Other ID	300	300
Sample Type	EW	EW
Sampling Date	02/07/2020	01/07/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	2.3	0.06
Acenaphthylene	DETSC 3304	0.01	ug/l	0.14	0.14
Acenaphthene	DETSC 3304	0.01	ug/l	8.0	0.35
Fluorene	DETSC 3304	0.01	ug/l	3.6	0.12
Phenanthrene	DETSC 3304	0.01	ug/l	4.8	0.08
Anthracene	DETSC 3304	0.01	ug/l	0.39	0.04
Fluoranthene	DETSC 3304	0.01	ug/l	0.42	0.21
Pyrene	DETSC 3304	0.01	ug/l	0.31	0.24
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.02	0.11
Chrysene	DETSC 3304	0.01	ug/l	0.02	0.12
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.15
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.06
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.10
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.08
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	0.09
PAH Total	DETSC 3304	0.2	ug/l	20	2.0
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



Our Ref 20-12223-1 Client Ref 4251

Contract Title Prairie Site Gro	varia irrestigation v	VOIKS	Lab No	1694893	1694894
				PRAIRIE_AUK_BH104_GW	PRAIRIE_AUK_BH105_GW
		Sa	mple ID	020720	
			Depth	6.21-18.50	4.51-11.00
			Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	02/07/2020	02/07/2020
			ing Time	n/s	n/s
Test	Method	LOD	Units		
Metals					
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.81	2.1
Boron, Dissolved	DETSC 2306*	12	ug/l	240	290
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	29	190
Chromium, Total	DETSC 2306*	0.25	ug/l	0.88	0.56
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.0	< 0.4
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09	0.11
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.06	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	5.2	1.5
Sodium, Dissolved	DETSC 2306	0.07	mg/l	230	170
Zinc, Dissolved	DETSC 2306	1.3	ug/l	11	31
Inorganics			- 0,		
pH	DETSC 2008		рН	8.0	7.7
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	5.1	4.1
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.13	0.21
Chloride	DETSC 2055	0.1	mg/l	67	97
Nitrate as N	*	0.1	mg/l	1.2	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	0.14	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	1.0	1.0
Sulphate as SO4	DETSC 2055	0.1	mg/l	750	620
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84
Petroleum Hydrocarbons			- 0,		
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/I ug/I	< 1.0	
Aromatic C10-C21	DL13C 3072	1	ug/I	< 1.0	\ 1.0



Contract Title Prairie Site Ground	Investigation V	Vorks			
			Lab No	1694893	1694894
				PRAIRIE_AUK_BH104_GW	PRAIRIE_AUK_BH105_GW
		Sa	ample ID	_020720	_020720
			Depth	6.21-18.50	4.51-11.00
		(	Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	02/07/2020	02/07/2020
		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	< 10



Client Ref 4251					
Contract Title Prairie Site Gr	ound Investigation V	Vorks			
			Lab No	1694893	1694894
				PRAIRIE_AUK_BH104_GW	PRAIRIE_AUK_BH105_GW
		Sa	mple ID	_020720	_020720
			Depth	6.21-18.50	4.51-11.00
		(	Other ID	300	300
		Samı	ple Type	EW	EW
		Sampli	ing Date	02/07/2020	02/07/2020
		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	0.06
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	0.03
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.02	0.03
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.01	0.01
Pyrene	DETSC 3304	0.01	ug/l	0.02	0.02
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	0.21
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



1694896

1694895

# **Summary of Chemical Analysis Water Samples**

Our Ref 20-12223-1 Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

			Lab No	1694895	1694896
				PRAIRIE_AUK_BH106_GW	PRAIRIE_AUK_BH107_GW
		Sa	mple ID	_020720	_020720
			Depth	3.28-10.00	3.12-8.00
		(	Other ID	300	300
		Samı	ple Type	EW	EW
		Sampli	ing Date	02/07/2020	02/07/2020
		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
Metals					
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	3.7	0.50
Boron, Dissolved	DETSC 2306*	12	ug/l	95	100
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	0.06
Calcium, Dissolved	DETSC 2306	0.09	mg/l	230	260
Chromium, Total	DETSC 2306*	0.25	ug/l	1.1	0.43
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.3	0.6
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.17	0.10
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.13	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.8	3.4
Sodium, Dissolved	DETSC 2306	0.07	mg/l	52	220
Zinc, Dissolved	DETSC 2306	1.3	ug/l	5.8	24
Inorganics					
рН	DETSC 2008		рН	8.7	7.5
Cyanide, Total	DETSC 2130	40	ug/l	< 40	110
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	25	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	15	3.4
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	1.4	0.14
Chloride	DETSC 2055	0.1	mg/l	59	89
Nitrate as N	*	0.1	mg/l	< 0.10	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	0.8	1.3
Sulphate as SO4	DETSC 2055	0.1	mg/l	680	770
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	13
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	45
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	60
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
1	<del></del>				

ug/l

< 1.0

Lab No

< 1.0

Aromatic C16-C21

DETSC 3072\*



Contract Title Prairie Site Gro	ound Investigation V	Vorks			
			Lab No	1694895	1694896
				PRAIRIE_AUK_BH106_GW	PRAIRIE_AUK_BH107_GW
		Sa	mple ID	_020720	_020720
			Depth	3.28-10.00	3.12-8.00
		(	Other ID	300	300
		Samı	ole Type	EW	EW
		Sampli	ing Date	02/07/2020	02/07/2020
		Sampli	ng Time	n/s	n/s
Test	Method	LOD	Units		
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	60



Our Ref 20-12223-1 Client Ref 4251

Lab No	1694895	1694896
	PRAIRIE_AUK_BH106_GW	PRAIRIE_AUK_BH107_GW
Sample ID	_020720	_020720
Depth	3.28-10.00	3.12-8.00
Other ID	300	300
Sample Type	EW	EW
Sampling Date	02/07/2020	02/07/2020
Sampling Time	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	0.25	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	0.05	0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.09	0.02
Fluorene	DETSC 3304	0.01	ug/l	0.16	0.02
Phenanthrene	DETSC 3304	0.01	ug/l	0.16	0.03
Anthracene	DETSC 3304	0.01	ug/l	0.04	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.06	0.02
Pyrene	DETSC 3304	0.01	ug/l	0.05	0.03
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.02	0.01
Chrysene	DETSC 3304	0.01	ug/l	0.02	0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.01	0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	0.95	0.24
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



Our Ref 20-12223-1 Client Ref 4251

Contract litle Prairie Site Gro	ouria irrestigation v	VOIRS	Lab No	1694897	1694898
			202 110		PRAIRIE_AUK_BH108D_G
		Sa	mple ID	W 020720	W_020720
		36	Depth	0.35-6.00	4.81-14.00
			Other ID	300	300
			ple Type	EW	EW
		-	ing Date	02/07/2020	02/07/2020
		-	ng Time	n/s	n/s
Test	Method	LOD	Units	11/3	1173
Metals					
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.71	0.60
Boron, Dissolved	DETSC 2306*	12	ug/l	270	480
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	610	640
Chromium, Total	DETSC 2306*	0.25	ug/l	2.6	0.51
Copper, Dissolved	DETSC 2306	0.23	ug/l	0.7	< 0.4
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.21	< 0.09
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01
Nickel, Dissolved	DETSC 2306	0.5	ug/l	5.3	2.5
Sodium, Dissolved	DETSC 2306	0.07	mg/l	160	190
Zinc, Dissolved	DETSC 2306	1.3	ug/l	33	2.7
Inorganics	DL13C 2300	1.5	и6/1	33	2.7
рН	DETSC 2008		рН	7.6	7.3
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	5.2	< 2.0
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.19	0.21
Chloride	DETSC 2055	0.013	mg/l	90	220
Nitrate as N	*	0.1	mg/l	< 0.10	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.033	%	1.5	2.0
Sulphate as SO4	DETSC 2055	0.01	mg/l	1300	1800
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84
Petroleum Hydrocarbons	DE13C 3043	04	и <sub>Б</sub> / і	\04	\04
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	2.9	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	27	13
Aliphatic C21-C35	DETSC 3072*	1	ug/l	31	8.2
Aliphatic C5-C35	DETSC 3072*	10	ug/l	62	23
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/I	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1		< 0.1	< 0.1
Aromatic C10-C12		1	ug/l	< 1.0	< 1.0
	DETSC 3072*		ug/l		
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0



Contract Title Prairie Site Grou	nd Investigation V	Vorks			
			Lab No	1694897	1694898
				PRAIRIE_AUK_BH108S_G	PRAIRIE_AUK_BH108D_G
		Sa	mple ID	W_020720	W_020720
			Depth	0.35-6.00	4.81-14.00
		(	Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	02/07/2020	02/07/2020
		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	62	23



Client Ref 4251					
Contract Title Prairie Site Gr	ound Investigation V	Vorks			
			Lab No		1694898
				PRAIRIE_AUK_BH108S_G	PRAIRIE_AUK_BH108D_G
		Sa	ample ID	W_020720	W_020720
			Depth	0.35-6.00	4.81-14.00
			Other ID	300	300
			ple Type	EW	EW
		_	ing Date	02/07/2020	02/07/2020
			ing Time	n/s	n/s
Test	Method	LOD	Units		
PAHs		, ,			
Naphthalene	DETSC 3304	0.05	ug/l	0.08	0.08
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.01	0.02
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.01	0.02
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.01	0.01
Pyrene	DETSC 3304	0.01	ug/l	0.01	0.02
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	< 0.20
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



1694900

1694899

### **Summary of Chemical Analysis Water Samples**

Our Ref 20-12223-1 Client Ref 4251

Contract Title Prairie Site Ground Investigation Works

			Lab No	1694899	1694900
				PRAIRIE_AUK_BH109_GW	PRAIRIE_AUK_BH110_GW
		Sa	mple ID	_020720	_020720
			Depth	6.72-11.80	3.87-20.80
			Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	02/07/2020	02/07/2020
		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
Metals					
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	6.4	2.7
Boron, Dissolved	DETSC 2306*	12	ug/l	70	800
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	540	61
Chromium, Total	DETSC 2306*	0.25	ug/l	1.3	1.4
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.7	0.7
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.33	< 0.09
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	0.03
Nickel, Dissolved	DETSC 2306	0.5	ug/l	28	< 0.5
Sodium, Dissolved	DETSC 2306	0.07	mg/l	350	950
Zinc, Dissolved	DETSC 2306	1.3	ug/l	19	< 1.3
Inorganics					
рН	DETSC 2008		рН	7.0	7.5
Cyanide, Total	DETSC 2130	40	ug/l	< 40	1400
Cyanide, Free	DETSC 2130	20	ug/l	< 20	56
Thiocyanate	DETSC 2130	20	ug/l	43	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	6.1	11
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.45	0.13
Chloride	DETSC 2055	0.1	mg/l	860	750
Nitrate as N	*	0.1	mg/l	< 0.10	0.89
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	0.17
Salinity (Calculated)	DETSC 2017*	0.01	%	2.7	2.7
Sulphate as SO4	DETSC 2055	0.1	mg/l	120	1300
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84
Petroleum Hydrocarbons	·				
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	62	< 1.0
<b> </b>					

ug/l

ug/l

Lab No

< 1.0

< 1.0

220

3.5

DETSC 3072\*

DETSC 3072\*

Aromatic C12-C16

Aromatic C16-C21



Contract Title Prairie Site Gr	ound Investigation V	Vorks			
			Lab No	1694899	1694900
				PRAIRIE_AUK_BH109_GW	PRAIRIE_AUK_BH110_GW
		Sa	mple ID	_020720	_020720
			Depth	6.72-11.80	3.87-20.80
		(	Other ID	300	300
		Sam	ple Type	EW	EW
		Sampl	ing Date	02/07/2020	02/07/2020
		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	280	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	280	< 10



Our Ref 20-12223-1 Client Ref 4251

Lab No	1694899	1694900
	PRAIRIE_AUK_BH109_GW	PRAIRIE_AUK_BH110_GW
Sample ID	_020720	_020720
Depth	6.72-11.80	3.87-20.80
Other ID	300	300
Sample Type	EW	EW
<b>Sampling Date</b>	02/07/2020	02/07/2020
<b>Sampling Time</b>	n/s	n/s

Test	Method	LOD	Units		
PAHs					
Naphthalene	DETSC 3304	0.05	ug/l	0.08	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	13	0.17
Acenaphthene	DETSC 3304	0.01	ug/l	170	8.4
Fluorene	DETSC 3304	0.01	ug/l	29	0.76
Phenanthrene	DETSC 3304	0.01	ug/l	0.06	0.04
Anthracene	DETSC 3304	0.01	ug/l	1.4	0.04
Fluoranthene	DETSC 3304	0.01	ug/l	0.54	0.02
Pyrene	DETSC 3304	0.01	ug/l	0.32	0.02
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.05	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.05	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.03	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.03	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.02	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	210	9.5
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100



Our Ref 20-12223-1 Client Ref 4251

Contract Prairie Site Ground Investigation Works

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

		Date		Holding time	Inappropriate	Headspace in container for
Lab No	Sample ID	Sampled	<b>Containers Received</b>	exceeded for tests	container for tests	tests
1694889	PRAIRIE_AUK_BH101S _GW_010720 1.69- 10.00 WATER	01/07/20	GB 1L, GV, PB 1L, PU			
1694890	PRAIRIE_AUK_BH101D _GW_010720 1.64- 16.50 WATER	01/07/20	GB 1L, GV, PB 1L, PU			
1694891	PRAIRIE_AUK_BH102_ GW_020720 0.90-7.20 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694892	PRAIRIE_AUK_BH103_ GW_010720 1.92-8.50 WATER	01/07/20	GB 1L, GV, PB 1L, PU			
1694893	PRAIRIE_AUK_BH104_ GW_020720 6.21- 18.50 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694894	PRAIRIE_AUK_BH105_ GW_020720 4.51- 11.00 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694895	PRAIRIE_AUK_BH106_ GW_020720 3.28- 10.00 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694896	PRAIRIE_AUK_BH107_ GW_020720 3.12-8.00 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694897	PRAIRIE_AUK_BH108S _GW_020720 0.35- 6.00 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694898	PRAIRIE_AUK_BH108D _GW_020720 4.81- 14.00 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694899	PRAIRIE_AUK_BH109_ GW_020720 6.72- 11.80 WATER	02/07/20	GB 1L, GV, PB 1L, PU			
1694900	PRAIRIE_AUK_BH110_ GW_020720 3.87- 20.80 WATER	02/07/20	GB 1L, GV, PB 1L, PU			

Key: G-Glass P-Plastic B-Bottle V-Vial U-Tube

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.

#### Disposal

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



Certificate Number 20-11109-1

09-Jul-20

Client Allied Exploration & Geotechnics Limited

Unit 25

Stella Gill Industrial Estate

Pelton Fell DH2 2RG

Our Reference 20-11109-1

Client Reference 4251

Order No (not supplied)

Contract Title Prairie Site Ground Investigation Works

Description 12 Water samples.

Date Received 23-Jun-20

Date Started 23-Jun-20

Date Completed 09-Jul-20

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

#### Notes This report supersedes 20-11109, 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





Our Ref 20-11109-1 Client Ref 4251

Lab No	1688245	1688246	1688247
	PRAIRIE_AUK_BH	PRAIRIE_AUK_BH	PRAIRIE_AUK_B
Sample ID	101S_GW_	101D_GW_	H102_GW_
Depth			
Other ID	200	200	200
Sample Type	EW	EW	EW
Sampling Date	17/06/2020	17/06/2020	18/06/2020
Sampling Time	n/s	n/s	n/s

		Sampi	ing rime	n/s	n/s	n/s
Test	Method	LOD	Units	,		
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	23	39	23
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.3	1.1	< 0.17
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	5.7	2.9	0.72
Barium, Dissolved	DETSC 2306	0.26	ug/l	18	49	930
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	380	370	18
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	49	160	630
Chromium, Total	DETSC 2306*	0.25	ug/l	6.1	1.1	14
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	0.6	0.8	0.5
Iron, Dissolved	DETSC 2306	5.5	ug/l	1500	630	19
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.11	0.20	1.0
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	7.7	28	0.28
Manganese, Dissolved	DETSC 2306	0.22	ug/l	380	470	13
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.02	0.01	0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	140	67	16
Nickel, Dissolved	DETSC 2306	0.5	ug/l	12	4.6	4.4
Sodium, Dissolved	DETSC 2306	0.07	mg/l	190	320	33
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.6	< 0.6	2.3
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.4	4.3	2.1
Inorganics						
рН	DETSC 2008		рН	7.6	7.5	12.3
Cyanide, Total	DETSC 2130	40	ug/l	3000	1200	< 40
Cyanide, Free	DETSC 2130	20	ug/l	73	38	< 20
Thiocyanate	DETSC 2130	20	ug/l	470	270	170
Dissolved Organic Carbon	DETSC 2085	2	mg/l	15	8.7	10
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	1.8	1.2	0.55
Chloride	DETSC 2055	0.1	mg/l	210	260	84
Nitrate as N	*	0.1	mg/l	0.14	0.11	< 0.10
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	1.0	1.4	4.1
Silicate as SiO2	DETSC 2211*	0.1	mg/l	5.5	7.0	1.4
Sulphate as SO4	DETSC 2055	0.1	mg/l	540	800	190
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84	< 84



Our Ref 20-11109-1 Client Ref 4251

Lab No	1688245	1688246	1688247
	PRAIRIE_AUK_BH	PRAIRIE_AUK_BH	PRAIRIE_AUK_B
Sample ID	101S_GW_	101D_GW_	H102_GW_
Depth			
Other ID	200	200	200
Sample Type	EW	EW	EW
Sampling Date	17/06/2020	17/06/2020	18/06/2020
Sampling Time	n/s	n/s	n/s

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< 10 < 0.1
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2.8
4.9
< 1.0
< 1.0
< 10
< 10
22
0.31
17
7.5
9.4
0.43
0.48
0.35
0.02
0.03
0.01
< 0.01
< 0.01
< 0.01
< 0.01
< 0.01
57
< 100



Our Ref 20-11109-1 Client Ref 4251

Lab No	1688248	1688249	1688250	
	PRAIRIE_AUK_B	PRAIRIE_AUK_B	PRAIRIE_AUK_B	
Sample ID	H103_GW_	H104_GW_	H105_GW_	
Depth				
Other ID	200	200	200	
Sample Type	EW	EW	EW	
Sampling Date	17/06/2020	17/06/2020	18/06/2020	
Sampling Time	n/s	n/s	n/s	

		Sampli	ng Time	n/s	n/s	n/s
Test	Method	LOD	Units			
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	47	61	360
Antimony, Dissolved	DETSC 2306	0.17	ug/l	1.2	0.93	0.22
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	4.7	2.4	2.0
Barium, Dissolved	DETSC 2306	0.26	ug/l	57	35	46
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	240	240	210
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	0.04	< 0.03
Calcium, Dissolved	DETSC 2306	0.09	mg/l	220	330	200
Chromium, Total	DETSC 2306*	0.25	ug/l	15	2.0	1.1
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	1.2	4.7	< 0.4
Iron, Dissolved	DETSC 2306	5.5	ug/l	210	48	650
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.52	0.27	0.45
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	23	44	33
Manganese, Dissolved	DETSC 2306	0.22	ug/l	520	1200	650
Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.05	< 0.01	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	29	11	6.0
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.8	1.8	0.9
Sodium, Dissolved	DETSC 2306	0.07	mg/l	60	48	130
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	21	5.2	0.9
Zinc, Dissolved	DETSC 2306	1.3	ug/l	2.1	4.7	1.6
Inorganics						
рН	DETSC 2008		рН	8.0	7.6	7.4
Cyanide, Total	DETSC 2130	40	ug/l	220	43	< 40
Cyanide, Free	DETSC 2130	20	ug/l	24	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	6.9	6.9	4.2
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.37	0.11	0.15
Chloride	DETSC 2055	0.1	mg/l	120	38	100
Nitrate as N	*	0.1	mg/l	0.12	3.8	0.14
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	0.24	< 0.035
Salinity (Calculated)	DETSC 2017*	0.01	%	0.9	1.1	1.1
Silicate as SiO2	DETSC 2211*	0.1	mg/l	9.4	9.2	14
Sulphate as SO4	DETSC 2055	0.1	mg/l	580	1000	640
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84	< 84



Our Ref 20-11109-1 Client Ref 4251

Lab No	1688248	1688249	1688250	
	PRAIRIE_AUK_B	PRAIRIE_AUK_B	PRAIRIE_AUK_B	
Sample ID	H103_GW_	H104_GW_	H105_GW_	
Depth				
Other ID	200	200	200	
Sample Type	EW	EW	EW	
Sampling Date	17/06/2020	17/06/2020	18/06/2020	
Sampling Time	n/s	n/s	n/s	

		Sampli	ng Time	n/s	n/s	n/s
Test	Method	LOD	Units			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	< 10	< 10
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	< 0.05	0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	0.16	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.48	< 0.01	0.02
Fluorene	DETSC 3304	0.01	ug/l	0.13	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.02	0.01	0.02
Anthracene	DETSC 3304	0.01	ug/l	0.05	0.02	0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.11	< 0.01	0.01
Pyrene	DETSC 3304	0.01	ug/l	0.10	< 0.01	0.01
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.03	< 0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.02	< 0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	1.2	< 0.20	< 0.20
Phenols	,		<u> </u>			
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100



Our Ref 20-11109-1 Client Ref 4251

_			
Lab No	1688251	1688252	1688253
	PRAIRIE_AUK_B	PRAIRIE_AUK_B	PRAIRIE_AUK_BH1
Sample ID	H106_GW_	H107_GW_	08S_GW_
Depth			
Other ID	200	200	200
Sample Type	EW	EW	EW
Sampling Date	17/06/2020	19/06/2020	18/06/2020
Sampling Time	n/s	n/s	n/s

Boron, Dissolved			-	ing Time	n/s	n/s	n/s
Aluminium, Dissolved		Method	LOD	Units			
Antimony, Dissolved	Metals						
Arsenic, Dissolved   DETSC 2306   0.16   ug/l   2.9   0.53		DETSC 2306		ug/l			12
Beryllium, Dissolved   DETSC 2306   0.26   ug/l   120   0.98	Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.87	0.61	0.19
Beryllium, Dissolved   DETSC 2306*   0.1   ug/l	Arsenic, Dissolved	DETSC 2306	0.16	ug/l	2.9	0.53	0.66
Boron, Dissolved	Barium, Dissolved	DETSC 2306	0.26	ug/l	120	0.98	46
Cadmium, Dissolved         DETSC 2306         0.03         ug/I         < 0.03         < 0.03         < Color           Calcium, Dissolved         DETSC 2306         0.09         mg/I         200         0.46           Chromium, Total         DETSC 2306*         0.25         ug/I         11         0.51           Chromium, Hexavalent         DETSC 2306         0.25         ug/I         < 7.0	Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1	< 0.1
Calcium, Dissolved         DETSC 2306         0.09         mg/l         200         0.46           Chromium, Total         DETSC 2306*         0.25         ug/l         11         0.51           Chromium, Hexavalent         DETSC 2203         7         ug/l         < 7.0	Boron, Dissolved	DETSC 2306*	12	ug/l	120	150	320
Chromium, Total         DETSC 2306*         0.25         ug/l         11         0.51           Chromium, Hexavalent         DETSC 2203         7         ug/l         < 7.0	Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	< 0.03
Chromium, Hexavalent   DETSC 2203   7   ug/l   < 7.0   < 7.0   < 7.0	Calcium, Dissolved	DETSC 2306	0.09	mg/l	200	0.46	620
Copper, Dissolved   DETSC 2306   0.4   ug/l   1.3   < 0.4    Iron, Dissolved   DETSC 2306   5.5   ug/l   45   69    Lead, Dissolved   DETSC 2306   0.09   ug/l   < 0.09   < 0.09    Magnesium, Dissolved   DETSC 2306   0.02   mg/l   49   0.23    Manganese, Dissolved   DETSC 2306   0.22   ug/l   320   1.7    Mercury, Dissolved   DETSC 2306   0.01   ug/l   0.05   0.04   < 0.04    Molybdenum, Dissolved   DETSC 2306   0.1   ug/l   19   25    Mickel, Dissolved   DETSC 2306   0.5   ug/l   1.5   < 0.5    Sodium, Dissolved   DETSC 2306   0.7   mg/l   35   980    Vanadium, Dissolved   DETSC 2306   0.6   ug/l   8.0   0.7    Zinc, Dissolved   DETSC 2306   1.3   ug/l   1.5   < 1.3    Inorganics   DETSC 2306   0.6   ug/l   < 40   95    Cyanide, Total   DETSC 2130   40   ug/l   < 40   95    Cyanide, Free   DETSC 2130   20   ug/l   < 20   < 20    Thiocyanate   DETSC 2130   20   ug/l   < 20   < 20    Dissolved Organic Carbon   DETSC 2085   2   mg/l   1.2   0.029   Colored Chloride   DETSC 2005   0.1   mg/l   57   130    Nitrate as N   PETSC 2017*   0.01   mg/l   0.44   0.12    Nitrite as N   DETSC 2017*   0.01   mg/l   0.44   0.15    Silicate as SiO2   DETSC 2211*   0.1   mg/l   6.1   11	Chromium, Total	DETSC 2306*	0.25	ug/l	11	0.51	8.7
Iron, Dissolved	Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Lead, Dissolved	Copper, Dissolved	DETSC 2306	0.4	ug/l	1.3	< 0.4	< 0.4
Magnesium, Dissolved         DETSC 2306         0.02         mg/l         49         0.23           Manganese, Dissolved         DETSC 2306         0.22         ug/l         320         1.7           Mercury, Dissolved         DETSC 2306         0.01         ug/l         0.05         0.04            Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         19         25           Nickel, Dissolved         DETSC 2306         0.5         ug/l         1.5         <0.5	Iron, Dissolved	DETSC 2306	5.5	ug/l	45	69	290
Manganese, Dissolved         DETSC 2306         0.22         ug/l         320         1.7           Mercury, Dissolved         DETSC 2306         0.01         ug/l         0.05         0.04            Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         19         25           Nickel, Dissolved         DETSC 2306         0.5         ug/l         1.5         < 0.5	Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09	< 0.09	0.09
Mercury, Dissolved         DETSC 2306         0.01         ug/l         0.05         0.04            Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         19         25           Nickel, Dissolved         DETSC 2306         0.5         ug/l         1.5         < 0.5	Magnesium, Dissolved	DETSC 2306	0.02	mg/l	49	0.23	110
Molybdenum, Dissolved         DETSC 2306         1.1         ug/l         19         25           Nickel, Dissolved         DETSC 2306         0.5         ug/l         1.5         < 0.5	Manganese, Dissolved	DETSC 2306	0.22	ug/l	320	1.7	1300
Nickel, Dissolved         DETSC 2306         0.5         ug/l         1.5         < 0.5           Sodium, Dissolved         DETSC 2306         0.07         mg/l         35         980           Vanadium, Dissolved         DETSC 2306         0.6         ug/l         8.0         0.7           Zinc, Dissolved         DETSC 2306         1.3         ug/l         1.5         < 1.3	Mercury, Dissolved	DETSC 2306	0.01	ug/l	0.05	0.04	< 0.01
Sodium, Dissolved   DETSC 2306   0.07   mg/l   35   980	Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	19	25	3.5
Vanadium, Dissolved         DETSC 2306         0.6         ug/l         8.0         0.7           Zinc, Dissolved         DETSC 2306         1.3         ug/l         1.5         < 1.3	Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.5	< 0.5	3.2
DETSC 2306   1.3   ug/l   1.5   < 1.3	Sodium, Dissolved	DETSC 2306	0.07	mg/l	35		110
DETSC 2008   DH   7.7   7.0	Vanadium, Dissolved	DETSC 2306	0.6	ug/l	8.0	0.7	< 0.6
pH         DETSC 2008         pH         7.7         7.0           Cyanide, Total         DETSC 2130         40         ug/l         < 40	Zinc, Dissolved	DETSC 2306	1.3	ug/l	1.5	< 1.3	3.0
Cyanide, Total         DETSC 2130         40         ug/l         < 40         95           Cyanide, Free         DETSC 2130         20         ug/l         < 20	Inorganics						
Cyanide, Free         DETSC 2130         20         ug/l         < 20         < 20           Thiocyanate         DETSC 2130         20         ug/l         < 20	рН	DETSC 2008		рН	7.7	7.0	7.3
Thiocyanate         DETSC 2130         20         ug/l         < 20         < 20           Dissolved Organic Carbon         DETSC 2085         2         mg/l         14         3.8           Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         1.2         0.029         0           Chloride         DETSC 2055         0.1         mg/l         57         130           Nitrate as N         *         0.1         mg/l         0.44         0.12           Nitrite as N         DETSC 2201         0.035         mg/l         3.4         < 0.035	Cyanide, Total	DETSC 2130	40	ug/l	< 40	95	< 40
Dissolved Organic Carbon         DETSC 2085         2 mg/l         14         3.8           Ammoniacal Nitrogen as N         DETSC 2207         0.015 mg/l         1.2         0.029         0           Chloride         DETSC 2055         0.1 mg/l         57         130           Nitrate as N         *         0.1 mg/l         0.44         0.12           Nitrite as N         DETSC 2201         0.035 mg/l         3.4         < 0.035	Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	< 20
Ammoniacal Nitrogen as N         DETSC 2207         0.015         mg/l         1.2         0.029         0           Chloride         DETSC 2055         0.1         mg/l         57         130           Nitrate as N         *         0.1         mg/l         0.44         0.12           Nitrite as N         DETSC 2201         0.035         mg/l         3.4         < 0.035	Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20	< 20
Chloride         DETSC 2055         0.1 mg/l         57         130           Nitrate as N         *         0.1 mg/l         0.44         0.12           Nitrite as N         DETSC 2201         0.035 mg/l         3.4 < 0.035	Dissolved Organic Carbon	DETSC 2085	2	mg/l	14	3.8	3.6
Nitrate as N         *         0.1         mg/l         0.44         0.12           Nitrite as N         DETSC 2201         0.035         mg/l         3.4         < 0.035	Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	1.2	0.029	0.046
Nitrite as N         DETSC 2201         0.035         mg/l         3.4         < 0.035         < 0.035           Salinity (Calculated)         DETSC 2017*         0.01         %         0.8         1.5           Silicate as SiO2         DETSC 2211*         0.1         mg/l         6.1         11	Chloride	DETSC 2055	0.1	mg/l	57	130	86
Salinity (Calculated)         DETSC 2017*         0.01         %         0.8         1.5           Silicate as SiO2         DETSC 2211*         0.1         mg/l         6.1         11	Nitrate as N	*	0.1	mg/l	0.44	0.12	0.11
Silicate as SiO2 DETSC 2211* 0.1 mg/l 6.1 11	Nitrite as N	DETSC 2201	0.035	mg/l	3.4	< 0.035	< 0.035
3,	Salinity (Calculated)	DETSC 2017*	0.01	%	0.8	1.5	1.6
	Silicate as SiO2	DETSC 2211*	0.1	mg/l	6.1	11	8.2
Sulphate as SO4   DETSC 2055   0.1  mg/l  740  1000	Sulphate as SO4	DETSC 2055	0.1	mg/l	740	1000	1800
Sulphur (free) DETSC 3049 84 ug/l < 84 < 84	Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84	< 84



Our Ref 20-11109-1 Client Ref 4251

• 01110			
Lab No	1688251	1688252	1688253
	PRAIRIE_AUK_B	PRAIRIE_AUK_B	PRAIRIE_AUK_BH1
Sample ID	H106_GW_	H107_GW_	08S_GW_
Depth			
Other ID	200	200	200
Sample Type	EW	EW	EW
Sampling Date	17/06/2020	19/06/2020	18/06/2020
Sampling Time	n/s	n/s	n/s
LOD Units			

		Sampin	ng i ime	n/s	n/s	n/s
Test	Method	LOD	Units			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	< 10	< 10
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	0.06	< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	0.03	< 0.01	0.01
Fluorene	DETSC 3304	0.01	ug/l	0.01	< 0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.02	0.02	0.02
Anthracene	DETSC 3304	0.01	ug/l	0.02	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.02	0.01	0.05
Pyrene	DETSC 3304	0.01	ug/l	0.02	0.02	0.05
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.03
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.03
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.04
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.02
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.03
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.02
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01	0.02
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	< 0.20	0.37
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100



Our Ref 20-11109-1 Client Ref 4251

Lab No	1688254	1688255	1688256
	PRAIRIE_AUK_BH1	PRAIRIE_AUK_B	PRAIRIE_AUK_B
Sample ID	08D_GW_	H109_GW_	H110_GW_
Depth			
Other ID	200	200	200
Sample Type	EW	EW	EW
Sampling Date	18/06/2020	19/06/2020	19/06/2020
Sampling Time	n/s	n/s	n/s

		Sampii	ng rime	n/s	n/s	n/s
Test	Method	LOD	Units			
Metals						
Aluminium, Dissolved	DETSC 2306	10	ug/l	< 10	< 10	11
Antimony, Dissolved	DETSC 2306	0.17	ug/l	< 0.17	0.19	1.5
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	0.55	0.33	3.7
Barium, Dissolved	DETSC 2306	0.26	ug/l	32	23	49
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	420	30	740
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03	0.31
Calcium, Dissolved	DETSC 2306	0.09	mg/l	650	9.4	480
Chromium, Total	DETSC 2306*	0.25	ug/l	0.75	2.5	2.5
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	< 0.4	< 0.4	5.4
Iron, Dissolved	DETSC 2306	5.5	ug/l	240	11	910
Lead, Dissolved	DETSC 2306	0.09	ug/l	< 0.09	< 0.09	0.18
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	120	45	88
Manganese, Dissolved	DETSC 2306	0.22	ug/l	910	6.7	770
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01	0.02
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.9	1.5	20
Nickel, Dissolved	DETSC 2306	0.5	ug/l	2.3	< 0.5	2.5
Sodium, Dissolved	DETSC 2306	0.07	mg/l	140	1100	420
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	< 0.6	< 0.6	1.7
Zinc, Dissolved	DETSC 2306	1.3	ug/l	3.9	< 1.3	12
Inorganics						
рН	DETSC 2008		рН	7.1	7.0	7.6
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40	1700
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20	240
Thiocyanate	DETSC 2130	20	ug/l	< 20	57	< 20
Dissolved Organic Carbon	DETSC 2085	2	mg/l	< 2.0	6.0	11
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.19	0.55	0.26
Chloride	DETSC 2055	0.1	mg/l	200	2400	780
Nitrate as N	*	0.1	mg/l	0.11	0.14	3.5
Nitrite as N	DETSC 2201	0.035	mg/l	< 0.035	< 0.035	0.70
Salinity (Calculated)	DETSC 2017*	0.01	%	2.0	3.7	2.6
Silicate as SiO2	DETSC 2211*	0.1	mg/l	9.5	17	12
Sulphate as SO4	DETSC 2055	0.1	mg/l	1800	230	1500
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84	< 84



Our Ref 20-11109-1 Client Ref 4251

Lab No	1688254	1688255	1688256
	PRAIRIE_AUK_BH1	PRAIRIE_AUK_B	PRAIRIE_AUK_B
Sample ID	08D_GW_	H109_GW_	H110_GW_
Depth			
Other ID	200	200	200
Sample Type	EW	EW	EW
<b>Sampling Date</b>	18/06/2020	19/06/2020	19/06/2020
Sampling Time	n/s	n/s	n/s

		Sampin	ng rime	n/s	n/s	n/s
Test	Method	LOD	Units			
Petroleum Hydrocarbons						
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	1.1	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	1.1	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	4.9	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	190	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	230	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	6.9	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	1.2	10
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	430	10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	440	10
PAHs						
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	190	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	6.4	< 0.01
Acenaphthene	DETSC 3304	0.01	ug/l	< 0.01	290	0.01
Fluorene	DETSC 3304	0.01	ug/l	< 0.01	56	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.01	0.83	0.01
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	3.9	0.03
Fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	3.0	< 0.01
Pyrene	DETSC 3304	0.01	ug/l	< 0.01	1.9	< 0.01
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.36	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	< 0.01	0.35	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.32	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	0.14	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.25	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	0.14	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	0.05	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	< 0.01	0.15	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	< 0.20	550	< 0.20
Phenols						
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100	< 100



### **Information in Support of the Analytical Results**

Our Ref 20-11109-1 Client Ref 4251

Contract Prairie Site Ground Investigation Works

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

		Date	•	Holding time	Inappropriate	Headspace in container for
Lab No	Sample ID	Sampled	<b>Containers Received</b>	exceeded for tests	container for tests	tests
1688245	PRAIRIE_AUK_BH101S _GW_ WATER	17/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688246	PRAIRIE_AUK_BH101D _GW_ WATER	17/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688247	PRAIRIE_AUK_BH102_ GW_ WATER	18/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688248	PRAIRIE_AUK_BH103_ GW_ WATER	17/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688249	PRAIRIE_AUK_BH104_ GW WATER	17/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688250	PRAIRIE_AUK_BH105_ GW_ WATER	18/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688251	PRAIRIE_AUK_BH106_ GW_ WATER	17/06/20	GB 1L x2, GV, PB 1L, P(other)			
1688252	PRAIRIE_AUK_BH107_ GW_WATER	19/06/20	GB 1L x2, GV, PB 1L			



### Information in Support of the Analytical Results

Our Ref 20-11109-1 Client Ref 4251

Contract Prairie Site Ground Investigation Works

	Date		Holding time	Inappropriate	container for
Sample ID	Sampled	<b>Containers Received</b>	exceeded for tests	container for tests	tests
PRAIRIE_AUK_BH108S	18/06/20	GB 1L x2, GV, PB 1L, P(other)			
_GW_ WATER					
PRAIRIE_AUK_BH108D	18/06/20	GB 1L x2, GV, PB 1L, P(other)			
_GW_ WATER					
PRAIRIE_AUK_BH109_	19/06/20	GB 1L x2, GV, PB 1L			
GW_WATER					
PRAIRIE_AUK_BH110_	19/06/20	GB 1L x2, GV, PB 1L, P(other)			
GW_WATER					
	PRAIRIE_AUK_BH108S _GW_ WATER PRAIRIE_AUK_BH108D _GW_ WATER PRAIRIE_AUK_BH109_ GW_ WATER PRAIRIE_AUK_BH110_	PRAIRIE_AUK_BH108S 18/06/20 _GW_ WATER PRAIRIE_AUK_BH108D 18/06/20 _GW_ WATER PRAIRIE_AUK_BH109 19/06/20 GW_ WATER PRAIRIE_AUK_BH109 19/06/20 PRAIRIE_AUK_BH110 19/06/20	PRAIRIE_AUK_BH108S         18/06/20         GB 1L x2, GV, PB 1L, P(other)           _GW_ WATER         18/06/20         GB 1L x2, GV, PB 1L, P(other)           _GW_ WATER         19/06/20         GB 1L x2, GV, PB 1L, P(other)           _GW_ WATER         19/06/20         GB 1L x2, GV, PB 1L           _GW_ WATER         PRAIRIE_AUK_BH110_         19/06/20         GB 1L x2, GV, PB 1L, P(other)	PRAIRIE_AUK_BH108S       18/06/20       GB 1L x2, GV, PB 1L, P(other)         _GW_ WATER       18/06/20       GB 1L x2, GV, PB 1L, P(other)         _GW_ WATER       19/06/20       GB 1L x2, GV, PB 1L         _GW_ WATER       19/06/20       GB 1L x2, GV, PB 1L         _GW_ WATER       PRAIRIE_AUK_BH110_       19/06/20       GB 1L x2, GV, PB 1L, P(other)	PRAIRIE_AUK_BH108S _ GB 1L x2, GV, PB 1L, P(other) _ GW_WATER       18/06/20

Key: G-Glass P-Plastic B-Bottle V-Vial

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.

#### **Disposal**

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



Certificate Number 20-10649

02-Jul-20

Client Allied Exploration & Geotechnics Limited

Unit 25

Stella Gill Industrial Estate

Pelton Fell DH2 2RG

Our Reference 20-10649

Client Reference 4251

Order No (not supplied)

Contract Title Prairie Site Ground Investigation Works

Description 2 Water samples.

Date Received 17-Jun-20

Date Started 17-Jun-20

Date Completed 02-Jul-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





Our Ref 20-10649 Client Ref 4251

Lab No	1685108	1685109
	PRAIRIE_AUK_	PRAIRIE_AUK_
	HBSW1_GW_1	HBSW2_GW_1
Sample ID	50620	50620
Depth		
Other ID	1	1
Sample Type	EW	EW
Sampling Date	15/06/2020	15/06/2020
Sampling Time	n/s	n/s

	Sampling Time			n/s	n/s
Test	Method	LOD	Units		
Metals					
Aluminium, Dissolved	DETSC 2306	10	ug/l	15	35
Antimony, Dissolved	DETSC 2306	0.17	ug/l	0.33	0.42
Arsenic, Dissolved	DETSC 2306	0.16	ug/l	4.4	4.6
Barium, Dissolved	DETSC 2306	0.26	ug/l	42	41
Beryllium, Dissolved	DETSC 2306*	0.1	ug/l	< 0.1	< 0.1
Boron, Dissolved	DETSC 2306*	12	ug/l	260	270
Cadmium, Dissolved	DETSC 2306	0.03	ug/l	< 0.03	< 0.03
Chromium, Total	DETSC 2306*	0.25	ug/l	5.2	2.4
Chromium, Hexavalent	DETSC 2203	7	ug/l	< 7.0	< 7.0
Copper, Dissolved	DETSC 2306	0.4	ug/l	2.0	2.0
Iron, Dissolved	DETSC 2306	5.5	ug/l	10	25
Lead, Dissolved	DETSC 2306	0.09	ug/l	0.13	< 0.09
Magnesium, Dissolved	DETSC 2306	0.02	mg/l	63	65
Manganese, Dissolved	DETSC 2306	0.22	ug/l	70	52
Mercury, Dissolved	DETSC 2306	0.01	ug/l	< 0.01	< 0.01
Molybdenum, Dissolved	DETSC 2306	1.1	ug/l	1.9	2.0
Nickel, Dissolved	DETSC 2306	0.5	ug/l	1.9	3.6
Vanadium, Dissolved	DETSC 2306	0.6	ug/l	1.5	2.5
Zinc, Dissolved	DETSC 2306	1.3	ug/l	4.1	3.6
Inorganics					
рН	DETSC 2008		рН	7.8	8.0
Cyanide, Total	DETSC 2130	40	ug/l	< 40	< 40
Cyanide, Free	DETSC 2130	20	ug/l	< 20	< 20
Thiocyanate	DETSC 2130	20	ug/l	< 20	< 20
Ammoniacal Nitrogen as N	DETSC 2207	0.015	mg/l	0.11	< 0.015
Silicate as SiO2	DETSC 2211*	0.1	mg/l	12	12
Sulphate as SO4	DETSC 2055	0.1	mg/l	680	760
Sulphur (free)	DETSC 3049	84	ug/l	< 84	< 84



Our Ref 20-10649 Client Ref 4251

Lab No	1685108	1685109
	PRAIRIE AUK	PRAIRIE AUK
	PRAIRIE_AUK_	PRAIRIE_AUK_
	HBSW1_GW_1	HBSW2_GW_1
Sample ID	50620	50620
Depth		
Other ID	1	1
Sample Type	EW	EW
Sampling Date	15/06/2020	15/06/2020
Sampling Time	n/s	n/s

		Sampli	ing Time	n/s	n/s
Test	Method	LOD	Units		
Petroleum Hydrocarbons					
Aliphatic C5-C6	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C6-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aliphatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aliphatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
Aromatic C5-C7	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C7-C8	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C8-C10	DETSC 3322	0.1	ug/l	< 0.1	< 0.1
Aromatic C10-C12	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C12-C16	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C16-C21	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C21-C35	DETSC 3072*	1	ug/l	< 1.0	< 1.0
Aromatic C5-C35	DETSC 3072*	10	ug/l	< 10	< 10
TPH Ali/Aro Total	DETSC 3072*	10	ug/l	< 10	< 10
PAHs		•			
Naphthalene	DETSC 3304	0.05	ug/l	< 0.05	< 0.05
Acenaphthylene	DETSC 3304	0.01	ug/l	< 0.01	0.02
Acenaphthene	DETSC 3304	0.01	ug/l	0.02	0.03
Fluorene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Phenanthrene	DETSC 3304	0.01	ug/l	0.04	< 0.01
Anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Fluoranthene	DETSC 3304	0.01	ug/l	0.05	0.02
Pyrene	DETSC 3304	0.01	ug/l	0.04	0.02
Benzo(a)anthracene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Chrysene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(b)fluoranthene	DETSC 3304	0.01	ug/l	0.01	< 0.01
Benzo(k)fluoranthene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(a)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Indeno(1,2,3-c,d)pyrene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Dibenzo(a,h)anthracene	DETSC 3304	0.01	ug/l	< 0.01	< 0.01
Benzo(g,h,i)perylene	DETSC 3304	0.01	ug/l	0.01	< 0.01
PAH Total	DETSC 3304	0.2	ug/l	0.26	< 0.20
i			-	1	



Our Ref 20-10649 Client Ref 4251

Lab No	1685108	1685109
	PRAIRIE_AUK_	PRAIRIE_AUK_
	HBSW1_GW_1	HBSW2_GW_1
Sample ID	50620	50620
Depth		
Other ID	1	1
Sample Type	EW	EW
Sampling Date	15/06/2020	15/06/2020
Sampling Time	n/s	n/s

	Sampi		ng rime[	n/s	n/s
Test	Method	LOD	Units		
Phenols					
Phenol - Monohydric	DETSC 2130	100	ug/l	< 100	< 100
VOCs					
Dichlorodifluoromethane	DETSC 3432	1	ug/l	< 1	< 1
Chloromethane	DETSC 3432	1	ug/l	< 1	< 1
Vinyl Chloride	DETSC 3432	1	ug/l	< 1	< 1
Bromomethane	DETSC 3432	1	ug/l	< 1	< 1
Chloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichlorofluoromethane	DETSC 3432*	1	ug/l	< 1	< 1
1,1-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
Methylene Chloride	DETSC 3432*	27	ug/l	< 27	< 27
Trans-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Cis-1,2-dichloroethylene	DETSC 3432	1	ug/l	< 1	< 1
2,2-dichloropropane	DETSC 3432	2	ug/l	< 2	< 2
Bromochloromethane	DETSC 3432	4	ug/l	< 4	< 4
Chloroform	DETSC 3432	1	ug/l	< 1	< 1
1,1,1-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
1,1-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Carbon tetrachloride	DETSC 3432	1	ug/l	< 1	< 1
Benzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Trichloroethylene	DETSC 3432*	1	ug/l	< 1	< 1
1,2-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromomethane	DETSC 3432	1	ug/l	< 1	< 1
Bromodichloromethane	DETSC 3432	4	ug/l	< 4	< 4
cis-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
Toluene	DETSC 3432	1	ug/l	1	1
trans-1,3-dichloropropene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2-trichloroethane	DETSC 3432	1	ug/l	< 1	< 1
Tetrachloroethylene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichloropropane	DETSC 3432	1	ug/l	< 1	< 1
Dibromochloromethane	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromoethane	DETSC 3432	1	ug/l	< 1	< 1
Chlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,1,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Ethylbenzene	DETSC 3432	1	ug/l	< 1	< 1



Our Ref 20-10649 Client Ref 4251

Contract Title Prairie Site Groun	d investigation v	vorks	ا مام ماما	1505100	1505100
			Lab No	1685108	1685109
				PRAIRIE_AUK_	PRAIRIE_AUK_
		c.	l. ID	HBSW1_GW_1	
		58	ample ID	50620	50620
			Depth Other ID	1	1
			ple Type	1 EW	EW
			ing Date	15/06/2020	15/06/2020
		-	ing Time	n/s	n/s
Test	Method	LOD	Units	.,,5	.,, 5
m+p-Xylene	DETSC 3432	2	ug/l	< 2	< 2
o-Xylene	DETSC 3432	1	ug/l	< 1	< 1
Styrene	DETSC 3432	1	ug/l	< 1	< 1
Bromoform	DETSC 3432	1	ug/l	< 1	< 1
Isopropylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,1,2,2-tetrachloroethane	DETSC 3432	1	ug/l	< 1	< 1
Bromobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichloropropane	DETSC 3432	1	ug/l	< 1	< 1
n-propylbenzene	DETSC 3432	1	ug/l	< 1	< 1
2-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3,5-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
4-chlorotoluene	DETSC 3432	1	ug/l	< 1	< 1
Tert-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trimethylbenzene	DETSC 3432	1	ug/l	< 1	< 1
sec-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
p-isopropyltoluene	DETSC 3432	1	ug/l	< 1	< 1
1,3-dichlorobenzene	DETSC 3432	2	ug/l	< 2	< 2
1,4-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
n-butylbenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
1,2-dibromo-3-chloropropane	DETSC 3432	1	ug/l	< 1	< 1
1,2,4-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
Hexachlorobutadiene	DETSC 3432	1	ug/l	< 1	< 1
1,2,3-trichlorobenzene	DETSC 3432	1	ug/l	< 1	< 1
MTBE	DETSC 3432*	1	ug/l	< 1	< 1
SVOCs					
Phenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Aniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2-Chlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Benzyl Alcohol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2-Methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Bis (2-chlorois opropyl) ether	DETSC 3434*	1	ug/l	< 1.0	< 1.0
3&4-Methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Bis(2-chloroethoxy)methane	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,4-Dimethylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,4-Dichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
1,2,4-Trichlorobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0



Our Ref 20-10649 Client Ref 4251

Contract Title Prairie Site Ground	l Investigation V	Vorks			
			Lab No	1685108	1685109
				PRAIRIE_AUK_	PRAIRIE_AUK_
				HBSW1_GW_1	HBSW2_GW_1
		Sa	mple ID	50620	50620
			Depth		
		(	Other ID	1	1
		Samı	ole Type	EW	EW
		Sampli	ing Date	15/06/2020	15/06/2020
		Sampli	ng Time	n/s	n/s
Test	Method	LOD	Units		
4-Chloro-3-methylphenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Hexachlorocyclopentadiene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,4,6-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,4,5-Trichlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2-Chloronaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,4-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
3-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0
4-Nitrophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Dibenzofuran	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,6-Dinitrotoluene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,3,4,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Diethylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0
4-Chlorophenylphenylether	DETSC 3434*	1	ug/l	< 1.0	< 1.0
4-Nitroaniline	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Diphenylamine	DETSC 3434*	1	ug/l	< 1.0	< 1.0
4-Bromophenylphenylether	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Hexachlorobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Bis(2-ethylhexyl)ester	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Pentachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Di-n-butylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Butylbenzylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Bis(2-ethylhexyl)phthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Di-n-octylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0
1,4-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Dimethylphthalate	DETSC 3434*	1	ug/l	< 1.0	< 1.0
1,3-Dinitrobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
2,3,5,6-Tetrachlorophenol	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Azobenzene	DETSC 3434*	1	ug/l	< 1.0	< 1.0
Carbazole	DETSC 3434*	1	ug/l	< 1.0	< 1.0
1-Methylnaphthalene	DETSC 3434*	1	ug/l	< 1.0	< 1.0



### Information in Support of the Analytical Results

Our Ref 20-10649 Client Ref 4251

Contract Prairie Site Ground Investigation Works

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

		Date			Inappropriate container for
Lab No	Sample ID	Sampled	<b>Containers Received</b>	Holding time exceeded for tests	tests
1685108	PRAIRIE_AUK_HBSW1_GW _150620 WATER	15/06/20	GB 1L x2, GV, PB 1L, P(other)	pH/Cond/TDS (1 days)	
1685109	PRAIRIE_AUK_HBSW2_GW _150620 WATER	15/06/20	GB 1L x2, GV, PB 1L, P(other)	pH/Cond/TDS (1 days)	

Key: G-Glass P-Plastic B-Bottle V-Vial

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.

#### 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



#### **Quality Control**

#### Quality Systems.

Derwentside Environmental Testing Services employs numerous measures to ensure high levels of confidence in the results produced. Our laboratory has been accredited by the United Kingdom Accreditation Service (UKAS) since its inception and operates in full compliance with the internationally recognised standard ISO17025 and the Environment Agency's MCERTS (Monitoring & Certification Scheme) standard for soils and waters, which provides greater assurance to all parties of the reliability of data from chemical analysis.





2139

To obtain a copy of our full UKAS schedule visit the UKAS website at <a href="www.ukas.org">www.ukas.org</a> and search for our laboratory number 2139.

#### Proficiency Testing Schemes.

DETS participates in seven external proficiency testing schemes in order to monitor and ensure the continuing quality of analysis. These schemes are:





Contest











#### Internal Quality Control.

DETS runs a strict internal quality control system. A minimum of 5% of all samples that undergo analysis in our laboratories are quality control samples. This way we can ensure a high level of confidence in all of the analytical data produced. In addition, MCERTS accredited tests must meet strict, ongoing limits for precision and bias in order to maintain their accreditation status.

Ref: DETS INFO 003 Issue Date: April 2014 Issue No: v 5.0 Page: 1 of 1

#### **SAMPLE HOLDING TIME INFORMATION**

#### Soil

Analyte	Container type	Minimum sample required	Reference	Maximum holding	time from sampling
				pre drying/extraction <sup>1</sup>	post drying/extraction <sup>2</sup>
Ammonium	Glass or plastic	20g	BS ISO18512:2007	1 week	
Anions	Glass or plastic	20g	BS ISO18512:2007	1 month	3 years
BTEX	60ml glass jar	Full container	EPA 8260	2 weeks	N/A
Conductivity	Glass or plastic	20g	BS ISO18512:2007	1 week	3 years
Cyanide	Glass or plastic	20g	EPA 9010B/9012	2 weeks	
Heavy metals	Glass or plastic	10g	BS ISO18512:2007	6 months	30 years
Hexavalent chromium	Glass or plastic	20g	BS ISO18512:2007	1 month	
Loss on ignition	Glass or plastic	10g	BS ISO18512:2007	1 month	
OCP	Glass	20g	BS ISO18512:2007	1 month	
Oil & grease	Glass	20g	EPA 9070/1	1 month	
Organic matter/TOC	Glass or plastic	20g	BS ISO18512:2007	1 month	
PAH	Glass	20g	EPA 8100/8270	2 weeks	6 weeks
PCB	Glass	20g	BS ISO18512:2007	1 month	
рН	Glass or plastic	20g	BS ISO18512:2007	1 week	3 years
Phenols	Glass	20g	EPA 8270	2 weeks	6 weeks
PRO	60ml glass jar	Full container	EPA 8015	2 weeks	N/A
Sulphide	Glass or plastic	20g	BRE SD1	3 weeks	1 month
SVOC	Glass	20g	EPA 8270	2 weeks	6 weeks
TEM/CEM	Glass	20g	EPA 418.1	2 weeks	6 weeks
Thiocyanate	Glass or plastic	20g	EPA 9251	No special requirement	
Total sulphur	Glass or plastic	20g	BS ISO18512:2007	1 month	3 years
TPH (C10-C40)	Glass	20g	EPA 418.1	2 weeks	6 weeks
VOC	60ml glass jar	Full container	EPA 8260	2 weeks	N/A

Sample storage environment 5°C

1. From sampling to extraction

2. Once extracted

Ref: DETS INFO 008 Issue Date: March 2014 Issue No: 4.1 Page: 1 of 2

#### Waters

Analyte	Container type	Min sample required (ml)	Reference	Preservative required	Max holding time until extraction
Alkalinity	Glass or plastic	100	EPA 310.2	none	2 weeks
Ammonium	Glass or plastic	20	ISO 5667 3:2012	Sulphuric acid	3 weeks
BOD	Glass or plastic	500	EPA 405.1 5120B	none	2 days
BTEX	Glass vial	Full container	Lab validation	none	2 weeks
Chloride	Glass or plastic	20	ISO 5667 3:2012	none	1 month
COD	Glass or plastic	20	ISO 5667 3:2012	Sulphuric acid	1 month
Conductivity/TDS	Glass or plastic	100	EPA 160.1	none	1 week
Cyanide	Plastic	50	EPA 9012/335.3	Sodium hydroxide	2 weeks
Hexavalent chromium	Glass or plastic	20	ISO 5667 3:2012	none	4 days
Metals	Glass or plastic	20	ISO 5667 3:2012	Nitric acid	1 month
Nitrate	Glass or plastic	20	EPA 353.2	none	2 days
Nitrite	Glass or plastic	20	EPA 600/4 079-020	none	2 days
ОСР	Glass	500	EPA 8081A/608	none	1 week
Oil & grease	Glass	500	ISO 5667 3:2012	Hydrochloric acid	1 month
PAH	Glass	500	ISO 5667 3:2012	none	1 week
рН	Glass or plastic	50	Lab validation	none	1 week
PCB	Glass	500	EPA 8082A	none	6 weeks
Phenols	Glass	500	ISO 5667 3:2012	Sulphuric acid	3 weeks
Phosphate	Glass or plastic	20	ISO 5667 3:2012	Sulphuric acid	1 month
PRO	Glass vial	Full container	EPA 8015	none	2 weeks
Sulphate	Glass or plastic	20	ISO 5667 3:2012	none	1 month
Sulphide	Plastic	50	ISO 5667 3:2012	NaOH/Zinc acetate	1 week
Suspended solids	Glass or plastic	100	EPA 160.2 2540D	none	1 week
SVOC	Glass	500	EPA 8270/625	none	1 week
TOC	Glass or plastic	20	ISO 5667 3:2012	Sulphuric/Phosphoric acid	1 week
TON	Glass or plastic	20	EPA 353.2	none	1 month
TPH/EPH	Glass	500	Lab validation	none	1 weeks
VOC	Glass vial	Full container	Lab validation	none	1 week

Sample storage environment 3°C ± 2°C

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Method Number	Title	Description	Reference	LOD	Accreditation Status
<b>DETS 036</b>	Leachate Preparation (NRA Method and BS EN 12457 Parts 1-3)	Leachates are prepared as per the NRA (1994) method and as per BS EN 12457 Parts 1 - 3 one and two stage leachate preparation.	Leaching Test Method for the Assessment of Contaminated Land, Interim Guidance, NRA(1994) BS EN 12457 Part 1,2 & 3	n/a	Not Accredited
DETS 073	Acid Neutralisation Capacity of Soils and Other Solids	ANC is a measure of the buffering capacity of soils and other waste materials. The analysis measures the amount of acid required to bring the sample to a fixed pH. The initial pH of the sample extract must be measured before analysis begins. Analysis is performed by the addition of acid in conjunction with pH measurement by pH meter until the specified pH has been reached as indicated by the meter. The result is expressed in mol/kg (dry wt).	Annex B (Preliminary determination of the acid/base consumption) – CEN/TC 292 – WI 292046 – Characterization of waste – Leaching behaviour tests – Acid and Base neutralization capacity test	1.0 mol/kg	Not Accredited
<b>DETS 074</b>	Low Level PAH by HPLC Fluorescence	PAH is extracted from one litre of filtered water sample by solid phase extraction. PAH is eluted from the SPE column with DCM evaporated to dryness under nitrogen and redissolved in acetonitrile. Analysis of samples is carried out by HPLC fluorescence.	EPA Method 550  The Analyst 2001, 126:1336-1331  Phenomonex Strata X Application Note for PAH by SPE	0.01ug/L each 5.0 ug/L Total	Not Accredited

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Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 1001	Sample Pre- Treatment and Preparation of Solids	Solid samples are classified and identified. Samples requiring analysis for unstable or volatile determinands are analysed as received. Samples requiring analysis for stable and non-volatile determinands are dried at <30°C or 50°C, depending on requirements, for a minimum of 16hrs (overnight). Dried samples are crushed in a jaw crusher, if necessary, and then ground using a mechanical mixer mill and sieved through a 250µm sieve to ensure they are homogenous.	BS1377:1990 – Soils for Civil Engineering Purposes  The preparation and pre-treatment of potentially contaminated soils prior to chemical analysis – MEWAM – 2006 – Environment Agency (Updated procedure under preparation)	n/a	Not Accredited
DETSC 1002	Description of Soil Sample Type	This method outlines the procedure used to describe soil samples with respect to basic type, predominant colour and inclusions. The procedure is carried out during the sample preparation stage.	BS 5930:Section 6:1999	n/a	Not Accredited
DETSC 1003	Stone and Glass / Metal / Plastic Content of Soil	This method outlines the procedure used to determine the Stone and Glass/Metal/Plastic content of soil samples. The procedure is carried out during the sample preparation stage.	BS 3882:2007 BS 1377:1990	0.1%	Not Accredited
DETSC 1004	Moisture Content/Loss on Drying of Soil	Loss on drying is determined by loss of mass on drying in an oven set at 28°C or 50°C. Moisture content is determined by loss of mass on drying in an oven set at 105°C. The procedure is carried out during the sample preparation stage.	Practical Environmental Analysis. Radojevic & Bashkin. RSC 1999  BS 1377: Part 2:1990  DETS drying time study	0.1%	Not Accredited
DETSC 1101	Asbestos - Bulk Analysis	Samples are examined visually for the presence of asbestos containing materials or asbestos fibres. Suspect fibres are removed from the sample and examined using polarised light microscopy to determine whether they are asbestos fibres.  If no asbestos fibres are identified by the method after an adequate length of examination time, and after at least two small pinch samples have been examined, then the sample may be reported as 'NAD' (no asbestos detected).	HSG 248 Asbestos: The Analysis Guide for Sampling, Analysis and Clearance Procedures. 2005  McCrone W.C., Asbestos Identification (Second Edition), The McCrone Research Institute, 1987  LAB 30, Application of ISO/IEC17025 for Asbestos Sampling and Testing, UKAS, Edition 2, April 2008	n/a	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 1102	Quantification of asbestos in soils, loose aggregates and ballast	The method of quantification is divided into three procedures: Gravimetric analysis, detailed gravimetric analysis and PCOM analysis. The analysis may be affected by the client's requirements as determined by contract review, and by the nature of the asbestos found in the sample, e.g. whether ACMs are present, and whether fibre bundles large enough to pick out using tweezers are have been found in the sample.	HSG 248 Asbestos: The Analysis Guide for Sampling, Analysis and Clearance Procedures. 2005  HSG264 Asbestos: The survey guide. HSE Books, 2010.  Davies, L. S.T., Wetherill, G. Z., McIntosh, C., McGonagle, C., Addison, J. 1996. Development and validation of an analytical method to determine the amount of asbestos in soils and loose aggregates. HSE Contract Research Report NO. 83/1996. HSE Books	Gravimetric Analysis: 0.01% for 1kg sample  Detailed Gravimetric Analysis: 0.001% for 50g sample  PCOM Analysis: 0.001%	UKAS
DETSC 1103	Asbestos Water Absorption Test	This test involves a sample of the asbestos product being dried and weighed before being immersed in water for a period of time. The sample is then removed from the water and re-weighed. If the amount of water absorbed is <30% by weight, then the sample should be reported as 'Not Licensed'. If ≥30% water is absorbed then the sample should be reported as being 'Licensed', i.e. an asbestos material for which a licence is required to work on.	Work with Materials Containing Asbestos: Approved Code of Practice and Guidance. HSE Books, 2006.	n/a	UKAS
DETSC 2002	Organic matter content of soil	The procedure is based upon Walkley and Black's method. Organic matter in soil is oxidised with potassium dichromate in the presence of concentrated sulphuric acid. The excess dichromate is titrated with ferrous sulphate using diphenylamine as an external indicator. The organic matter content is calculated from the amount of dichromate used during the oxidation process based on an empirical relationship.	BS1377 : Part 3 : 1990 Method 3  BS1377 : Part 1 : 1990  BS 3882:2007	0.1%	UKAS MCERTS(Soils)



DETSC 2003	Loss On Ignition	Soil is ignited at 440C and the amount of sample lost on ignition is determined gravimetrically. Other specified temperatures may be used but are not accredited.	BS1377 : Part 3 : 1990 Method 4 BS1377 : Part 1 : 1990	0.01%	UKAS MCERTS(Soils)
Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2004	Sulphate Content of Soil and Water	The sulphate in the soil is dissolved in dilute hydrochloric acid, or in an aqueous extract having a water:soil ratio of 2:1 and the insoluble residue is removed by filtration.  Waters are also filtered prior to analysis. The sulphate in the filtrate is precipitated as barium sulphate which is then filtered, ignited and weighed.	BS1377 : Part 3 : 1990 Method 5  BS1377 : Part 1 : 1990  BRE SD1: 2005 Concrete in Aggressive Ground	Acid Soluble: 0.01%  Water Soluble 100mg/l  Waters 10mg/l	UKAS MCERTS(Soils)
DETSC 2005	Carbonate content of soil by Rapid Titration	The carbonate present in the soil reacts with a known excess of hydrochloric acid liberating carbon dioxide. The acid remaining after the reaction is determined by titration against sodium hydroxide. The result is calculated in terms of the equivalent proportion of carbon dioxide.	BS 1377: Part 1: 1990. BS 1377: Part 3: 1990: Method 5	1%	UKAS
DETSC 2006	Water Soluble Chloride Content of Soil & Chloride Content of Water	The chloride in the soil is dissolved in water and the insoluble material is removed by filtration. Waters are filtered before analysis.  The chloride is analysed by Mohr's method.  The chloride in a neutral solution is titrated against standard silver nitrate using potassium chromate as an indicator. The colour change is from yellow to brick red.	BS1377 : Part 3 : 1990 Method 7.2 BS1377: Part 1: 1990	<b>Soil:</b> 0.01% <b>Water:</b> 10mg/l	UKAS MCERTS(Soils)
DETSC 2007	Acid Soluble Chloride Content of Soil and Concrete	The chloride in the sample is dissolved in nitric acid and the insoluble material is removed by filtration.  The dissolved chloride is analysed by Volhard's method. The chloride in solution is precipitated with a known excess of standard silver nitrate. The excess silver nitrate is titrated against standard ammonium thiocyanate using ferric alum as an indicator. The colour change is white to red.	BS1377 : Part 3 : 1990 Method 7.3  BS1377: Part 1: 1990  BS 1881-124:1988	0.01%	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2008	pH Value of Soil and Water	The pH value of a soil suspension in water or a groundwater sample is determined electrometrically using a glass electrode.	BS1377: Part 3: 1990 – Soils for Civil Engineering Purposes – Chemical and Electrochemical Methods	n/a	UKAS (Soils + Waters) MCERTS (Soils + Waters-Trade Effluent only)
DETSC 2009	Electrical Conductivity of Soil & Water	The electrical conductance of a soil suspension in water or of a water sample is determined by voltammetry using a conductivity meter.  In some cases, the soil may need to be extracted with an aqueous solution of an inorganic salt e.g. the conductivity of topsoil is determined by preparing a suspension of the soil in saturated calcium sulphate.	Standard Methods for the Examination of water and Wastewater Part 2510B 21st Edition 2005 APHA, AWWA, WEF  BS3882:2007 Specification for Topsoil	1uS/cm	UKAS
DETSC 2019	Loose Packed Dry Soil Density	Dried, ground soil is transferred to a dry, tared measuring cylinder and the volume recorded. The cylinder and its contents are then weighed and the density of the soil calculated.	BS3882:2007 Specification for Topsoil	n/a	Not Accredited

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Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2024	Sulphide in Soil and Water by Iodometry	Hydrogen sulphide is liberated by acidification of the sample with hydrochloric acid in a steam distillation unit. The hydrogen sulphide produced is carried over with the steam and is absorbed in alkaline zinc acetate. The zinc sulphide produced reacts with iodine formed when iodate-iodide is acidified and the excess iodine titrated with standard thiosulphate.	In House Method based on:  Environment Agency The determination of easily liberated sulphide in soils and similar matrices (2010) - Blue Book 228 Method D - The determination of easily liberated sulphide in as received or air-dried samples following acid steam distillation with iodometric titration.  Environment Agency The determination of sulphide in waters and associated materials (2007) Draft Method D - The determination of easily liberated sulphide in as received or air-dried samples following phosphoric acid steam distillation with iodometric titration.	Soils: 10mg/kg . Waters: 250ug/l	Soils: UKAS MCERTS(Soils)  Waters: Not Accredited
DETSC 2030	Alkalinity in Water	Alkalinity of a water sample is determined by indicator end point titration with a strong acid from sample pH to pH8.3 (where applicable) and then to pH4.5. From the titres obtained the total alkalinity and concentrations and types of alkalinity present can be calculated.	SCA Method ISBN 0 11 751601 5 The Determination of Alkalinity and Acidity in Water 1981  Instruction Manual for Skalar SP50 Robotic Analyser	20mg/l as CaCO3	UKAS  MCERTS(Waters)  Trade Effluent only
DETSC 2031	5 Day Biochemical Oxygen Demand	The sample, either diluted or undiluted, is placed in a BOD bottle and the initial dissolved oxygen content of the sample is measured using a dissolved oxygen meter. The bottle is placed in an incubator at 20°C in the dark for 5 days. After this time the bottle is removed and the residual dissolved oxygen content of the sample is measured. The BOD of the sample is calculated from the reduction in the concentration of dissolved oxygen over 5 days.	SCA Method ISBN 0 117522120 5 Day Biochemical Oxygen Demand (BOD5) Second Edition 1988	1 mg/l	UKAS MCERTS(Waters)- Trade Effluent only



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2032	Chemical Oxygen Demand	Oxidisable substances react with sulphuric acid – potassium dichromate solution in the presence of silver sulphate as a catalyst. Chloride is masked by mercury sulphate. The reduction in the yellow colouration of Cr6+ is evaluated using a spectrophotometer for the low range tubes (LCK 314) whilst the green colouration of Cr3+ is evaluated for the medium and high range tubes (LCK 014 and LCK 114).	Environment Agency The determination of chemical oxygen demand in waters and effluents (2007) Methods for the Examination of Waters and Associated Materials	10 mg/l	UKAS MCERTS(Waters)- Trade Effluent only
DETSC 2033	Total and Dissolved Organic Carbon in Water	The term TOC (Total Organic Carbon) is used to describe the total content of organically bound carbon in dissolved and undissolved compounds. The TOC content is expressed in mg/l. If DOC (Dissolved Organic Carbon) is required, samples are filtered through a 0.45µm filter paper prior to analysis.  Inorganic carbon is expelled by acidification of the sample. TOC is then determined by digestion of the sample with sulphuric acid and peroxodisulphate. Carbon containing compounds are transformed into carbon dioxide. The carbon dioxide evolves and reacts with an indicator solution. The colour change is measured using a spectrophotometer.	Hach-Lange Technical Instructions: LCK 385, LCK 386, LCK 387	2 mg/l	UKAS
DETSC 2034	Suspended and Settleable Solids in Water	Suspended matter is removed from a measured volume of sample by filtration under reduced pressure through a pretreated, pre-weighed glass fibre filter paper. The paper is washed with deionised water to remove dissolved salts and the total suspended matter is determined gravimetrically after drying at 105 ±5°C  Settleable solids are determined by subtracting the solids left in suspension after settlement for 1 hour (or other agreed time) from the total suspended matter in the sample.	SCA Method ISBN 011 751957 X Suspended, Settleable and Total Dissolved Solids in Waters and Effluents 1980	5 mg/l	Suspended Solids:



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2035	Total Dissolved Solids in Water	Water samples are pre-filtered to remove any suspended solids and evaporated in an oven at 180°C. The amount of residual dissolved solids is determined gravimetrically. An estimate of the total dissolved solids can be obtained by measuring the conductivity of the sample. This method is not accredited.	SCA Method ISBN 011 751957 X Suspended, Settleable and Total Dissolved Solids in Waters and Effluents 1980  BS1377: Part 3: 1990 Section 8	5 mg/l	UKAS
DETSC 2047	Formaldehyde in Water	Formaldehyde in soil is extracted in water, with a water to soil ratio of 10:1. The insoluble residue is removed by filtration prior to analysis.  Waters are filtered prior to analysis to remove any particulates in suspension.  Formaldehyde in the extract or water sample reacts with chromatropic acid-sulphuric acid solution to form a purple coloured complex. The absorbance of the coloured solution is read at 580nm using a suitable visible spectrophotometer.	Formaldehyde by visible absorption spectrophotometry – Method 3500, Issue 2 – NIOSH Manual of Analytical Methods, Fourth edition, August 1994	Soil: 0.2mg/kg Water: 20μg/l	Not Accredited
DETSC 2048	Dissolved Oxygen Content of Water	The dissolved oxygen content of the sample is measured using a dissolved oxygen meter either electrochemically or by fluorescence, or by the titrimetric method developed by Winkler.	SCA Method ISBN 0.11 751442X Dissolved Oxygen in Natural and Waste Waters 1979	0.1 mg/l	Not Accredited
DETSC 2055	Anions in Water and Aqueous Soil Extracts by Ion Chromatography	Liquid samples and aqueous soil extracts are filtered through a 0.22µm syringe filter prior to analysis. The filtered samples are injected into an Ion Chromatograph. The anions of interest are separated on the basis of their affinity for the active sites of the column packing material. The separated anions are converted into their highly conductive acid forms and measured by conductivity. The anions are identified on the basis of retention time as compared to standards and quantisation is by measurement of peak area.	Standard Methods for the Examination of Water and Wastewater Section 4110 21st Edition 2005 APHA, AWWA, WEF	<b>Soil:</b> 1.0 mg/kg <b>Water:</b> 0.1 mg/L	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2076	Sulphate and Magnesium Content of 2:1 Aqueous Extract of Soil by ICP- OES	The sulphate and magnesium in the soil are extracted in an aqueous extract having water: soil ratio of 2:1 and the insoluble material is removed by filtration. The concentrations of sulphate and magnesium in the filtrate are determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES). The wavelengths used for identification and quantification are 181.972nm for sulphate and 285.213nm for magnesium.	BS1377 : Part 3: 1990 Method 5  BS1377 : Part 1: 1990  TRL 447 Sulphate Specification for Structural Backfills 2005  BRE SD1:2005 Concrete in Aggressive Ground 2005	10mg/L	Sulphate: UKAS MCERTS(Soils)  Magnesium: Not Accredited
DETSC 2084	Total Organic Carbon by PrimacATC Analyser	Soil samples are treated with phosphoric acid to expel any inorganic carbonates. The samples are then heated at high temperature in a continuous flow of air so that any organic carbon is oxidised to carbon dioxide. The gas is then allowed to cool and analysed by an infra-red detector.	PrimacsATC Analyser – User Manual, Skalar	0.47%	MCERTS(Soils)
DETSC 2085	Total and Dissolved Organic Carbon in Water	Direct TOC Analysis  The sample is acidified, stirred and purged to remove the IC before the sample is injected and handled as in the TC Analysis. The sample is filtered before acidification for DOC.  TC Analysis  The sample is injected by an automated septum less rotary port into a high temperature reactor. In the reactor, at a temperature of 750 - 950°C all organic and inorganic carbon is oxidized to the gaseous carbon dioxide (CO2). The catalyst that is present in the reactor catalysis the oxidation to completion. A flow of air transports these oxidation products to the detectors. The oxygen required for reaction is taken from the airflow. The products are led into the non-dispersive infrared detector where the carbon dioxide is determined. The carbon dioxide is measured at a wavelength of 4.2 μm by NDIR detection.	Standard Methods for the Examination of Water and Wastewater Section 5310 B 21st Edition 2005 APHA, AWWA, WEF  HMSO Methods for the Examination of Waters and Associated Materials – The Instrumental Determination of Total Organic Carbon and Related Determinands 1995	lmg/l as C	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2119	Exchangeable Ammonia in Soil	An intense blue-green complex, related to indophenol blue, is formed by the reaction of ammonia with hypochlorite and sodium salicylate, with sodium nitroprusside acting as a catalyst. The complex is measured at 655nm and is related to the ammonia concentration by means of a calibration curve. Sodium citrate is added to overcome interfering ions.	MAFF/ADAS Reference Book 427 – the Analysis of Agricultural Materials – Method 53, Ammonium, Nitrate and Nitrite-Nitrogen, Potassium Chloride Extractable	0.5mg/kg	UKAS MCERTS(Soils)
DETSC 2120	Ammonia in Water by Spectrophotometr y	An intense blue-green complex, related to indophenol blue, is formed by the reaction of ammonia with hypochlorite and sodium salicylate, with sodium nitroprusside acting as a catalyst. The complex is measured at 655nm and is related to the ammonia concentration by means of a calibration curve. Sodium citrate is added to overcome interfering ions.	Environment Agency Ammonia in Waters 1981 ISBN 0117516139 Methods for the Examination of Waters and Associated Materials	20μg/l	UKAS
DETSC 2121	Total Kjeldahl Nitrogen Content of Soils and Waters	The sample is digested with sulphuric acid and a mixture of catalysts to convert organic nitrogen to ammonia. The sample is then distilled under alkaline conditions, and the distilled ammonia is absorbed in sulphuric acid. The ammonia content of the distillate is then determined colorimetrically either using the UV/vis spectrophotometer or the Konelab 60i.  Ammonia reacts with hypochlorite ions generated by the alkaline hydrolysis of sodium dichloroisocyanurate to form monochloramine. Monochloramine reacts with salicylate ions in the presence of sodium nitroprusside at around pH 12.6 to form a blue compound. The absorbance of this compound is measured spectrophotometrically at wavelength 660nm	The Analysis of Agricultural Materials – MAFF/ADAS Reference Book 427 – HMSO  BS 3882: 2007 Specification for topsoil  Standard Methods for the Examination of Water and Wastewater Part 4500-N. 21st Edition 2005 APHA, WWA, WEF	Soil: 0.01% Water: 2mg/l	Not Accredited
DETSC 2123	Water Soluble Boron in Soil & Boron in Water	Boron in soil is extracted in boiling saline water.  Waters are filtered prior to analysis to remove any particulates in suspension.  The water soluble boron in the extract or filtrate reacts with azomethine—H to produce a yellow coloured complex.  The resulting colour absorbance is measured at 420nm using a suitable visible spectrophotometer.	SecondSite Property (now National Grid Property Holdings) - Guidance for assessing and managing potential contamination on former gasworks and associated sites (Part I) (Version 3) Method 17.12  The analysis of Agricultural materials MAFF/ADAS – reference book 427	Soil: 0.2mg/kg Water: 100ug/L	UKAS MCERTS(Soils)

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Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2130	Cyanides & Monohydric Phenols by Skalar	Water samples are filtered through a 0.45µm syringe filter and solid samples are extracted with 1M caustic soda prior to analysis on the automated flow analyser.  The method determines total cyanide, easily liberated cyanide, complex cyanide, thiocyanate and monohydric phenols	Skalar methods: I295-001 w/r+P7 I295-002 w/r+P7 293-902 w/r+P7 497-001	Soils mg/kg: Total & Free CN=0.1, Thio=0.6, Phenol=0.3  Waters ug/L: Total CN=40, Free CN=20, Thio=20, Phenol=100	UKAS MCERTS(Soils)
DETSC 2140	Sugar in Mixing Water for Cement	Waters are filtered prior to analysis to remove any particulates in suspension.  The sugar in the filtrate reacts with phenol and sulphuric acid to produce a yellow-orange coloured complex. The resulting colour absorbance is measured at 490nm using a suitable visible spectrophotometer.	Colorimetric Method for Determination of Sugars and Related Substances MICHEL DUBOIS, K. A. GILLES, J. K. HAMILTON, P. A. REBERS, and FRED SMITH - Division of Biochemistry, University of Minnesota, St. Paul, Minnesota.	10mg/l	Not Accredited
DETSC 2201	Nitrite in Waters and Leachates by Konelab 60i	Nitrite is determined colorimetrically using the Konelab60i autoanalyser. The nitrite colour reaction occurs at pH 2.0 to 2.5 by coupling diazotized Sulphanilamide with N-1-naphthyl-ethylenediamine. The absorbance of this compound is measured spectrophotometrically at 520nm.	Standard Methods for the Examination of Water and Wastewater Part 4500-NO2 B – 21st Edition 2005 APHA, AWWA, WEF  Aquakem Method Nitrite in Waters Iss No 2  Methods for the Examination of Water and Associated Materials Oxidised Nitrogen in Waters 1981.	0.04mg/l (as N)	UKAS

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	EPA Method 354.1 Nitrite, spectrophotometric (Approved at 40	
	CFR Part 136, not approved at Part 141)	



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2202	Total Oxidised Nitrogen in Waters and Leachates by Konelab 60i	Nitrate is reduced to nitrite by hydrazine under alkaline conditions. The total nitrite ions are then reacted with sulphanilamide and N-1-naphthylethylenediamine dihydrochloride under acidic conditions to form a reddish purple azo-dye. The absorbance of this compound is measured spectrophotometrically at 540 nm using the Konelab 60i autoanalyser.	Standard Methods for the Examination of Water and Wastewater Part 4500-NO2 B and Part 4500-NO3 H – 21st Edition 2005 APHA, AWWA, WEF  Aquakem Method Total Oxidised Nitrogen.  Methods for the Examination of Water and Associated Materials Oxidised Nitrogen in Waters 1981.  EPA Method 353.1 Nitrate, Nitrite Colorimetric Automated Hydrazine Reduction (Approved at 40 CFR Part 136, Not approved at Part 141)	0.7mg/l (as N)	UKAS
DETSC 2203	Hexavalent Chromium in Waters and Leachates by Konelab 60i	Hexavalent Chromium is determined colorimetrically using the Konelab 60i autoanalyser. Hexavalent chromium reacts with diphenylcarbizide in acid solution and produces a red-violet colour. The absorbance of this compound is measured spectrophotometrically at 540nm.	Standard Methods for the Examination of Water and Wastewater Part 3500-Cr – 21st Edition 2005 APHA, AWWA, WEF  USEPA 7196-A  Aquakem Method. Hexavalent Chromium	10μg/l	UKAS
DETSC 2204	Hexavalent Chromium in Soil by Konelab 60i	Hexavalent Chromium is determined colorimetrically using the Konelab 60i autoanalyser. Hexavalent chromium reacts with diphenylcarbizide in acid solution and produces a red-violet colour. The absorbance of this compound is measured spectrophotometrically at 540nm.	Aquakem Method. Hexavalent Chromium	1mg/kg	Not Accredited



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2205	Reactive & Total Phosphorus in Waters and Leachates by Konelab 60i	Phosphate is determined colorimetrically using the Konelab60i autoanalyser. The orthophosphate ion reacts with ammonium molybdate and antimony potassium tartrate under acidic conditions to form a 12-molybdophosphoric acid complex. The complex is then reduced with ascorbic acid to form a blue heteropoly compound. The absorbance of this compound is measured spectrophotometrically at wavelength 880nm.	Standard Methods for the Examination of Water and Wastewater Part 4500-P E– 21st Edition 2005 APHA, AWWA, WEF  Aquakem Method. Phosphate in Waters Issue 2	0.01mg/l	Reactive Phosphorus: UKAS MCERTS (Waters- Trade Effluent only)  Total Phosphorus: Not Accredited
DETSC 2206	High Level Ammonia in Waters and Leachates by Konelab 60i	Ammonia is determined colorimetrically using the Konelab60i autoanalyser. Ammonia reacts with hypochlorite ions generated by the alkaline hydrolysis of sodium dichloroisocyanurate to form monochloramine. Monochloramine reacts with salicylate ions in the presence of sodium nitroprusside at around pH 12.6 to form a blue compound. The absorbance of this compound is measured spectrophotometrically at wavelength 660nm.	Methods for the Examination of Waters and Associated Materials Ammonia in Waters 1981 ISBN 0117516139.  Aquakem Method. Ammonia in Waters Issue 2	0.8mg/l	UKAS
DETSC 2207	Low Level Ammonia in Waters and Leachates by Konelab 60i	Ammonia is determined colorimetrically using the Konelab60i autoanalyser. Ammonia reacts with hypochlorite ions generated by the alkaline hydrolysis of sodium dichloroisocyanurate to form monochloramine. Monochloramine reacts with salicylate ions in the presence of sodium nitroprusside at around pH 12.6 to form a blue compound. The absorbance of this compound is measured spectrophotometrically at wavelength 660nm.	Methods for the Examination of Waters and Associated Materials Ammonia in Waters 1981 ISBN 0117516139. Aquakem Method. Ammonia in Waters Issue 2	0.015mg/l	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2208	Sulphide in Waters and Leachates by Konelab 60i	Sulphide is determined colorimetrically using the Konelab60i autoanalyser. Potassium Dichromate converts N-N-Diethyl-p-phenylenediamine to the free radical which reacts rapidly with sulphide to produce the coloured 'DPD Blue' or 'Ethylene Blue'. The absorbance can then be measured at wavelength 660nm.	The determination of sulphide in waters and associated materials (2007) - SCA - Draft (March 2007)  Aquakem Method. Sulphide SP001 Issue 2  Standard Methods for the Examination of Water and Wastewater, 21st Edition 2005, Part 4500. ISBN0-87553-223-3	10μg/l	UKAS
DETSC 2210	Ferrous Iron in Waters and Leachates by Konelab 60i	Three molecules of phenanthroline chelate with each atom of ferrous iron to form an orange/red complex. The intensity of the coloured solution is stable between pH3 to pH9. Rapid colour development occurs between pH2.9 and pH3.5 in the presence of excess phenanthroline. The resulting colour absorbance is measured at 510nm	Aquakem Method Ferrous Iron FIR001 Issue 2	0.1mg/l	Not Accredited
DETSC 2211	Silicate in Waters and Leachates by Konelab 60i	Reactive forms of silicon in acid solution, below pH2, react with ammonium molybdate ions to form a yellow silicomolybdate. Ascorbic acid reduces the yellow silicomolybdate to produce a blue silicomolybdate complex. Oxalic acid is added to destroy any molybdophosphoric acid formed.	ASTM D7126 - 10 Standard Test Method for On-Line Colorimetric Measurement of Silica  Aquakem Method Silica SIL Issue 2	0.1mg/l	Not Accredited
DETSC 2301	Metals in Soil by ICP-OES  As, Ba, Be, Cd, Cr, Co, Cu, Fe, Mn, Mo, Ni, Pb, Se, V, Zn	Metals in soil are extracted using aqua regia and their concentrations are determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES).  Any metals not listed can be determined but are not accredited under UKAS or MCERTS for soils.	Standard Methods for the Examination of Water and Wastewater Part 3120 B – 21st Edition 2005, AWWA, WEF	mg/kg: As, Be Cu, Ni =0.2, Ba=1.5, Cd=0.1, Cr=0.15, Co=0.7, Mn=20, Mo=0.4, Pb=0.3, Fe=1200, Se=0.5, V=0.8, Zn=1.0	UKAS (all listed)  MCERTS (All soils listed except Fe)

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Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2302	Metals in Waters by ICP-OES Al, As, Ca, Cd, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, Pb, Se, Zn	Concentrations of metals in water are determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES).  Any metals not listed can be determined but are not accredited under UKAS or MCERTS for waters	Standard Methods for the Examination of Water and Wastewater Part 3120 B – 21st Edition 2005 APHA, AWWA, WEF	μg/l: Al=6.5, As= 7.1, Ca=100, Cd=0.3, Cr=0.75, Cu=0.75, Fe=70, K=20, Mg=5, Na=12, Ni=2.7, Pb=4, Se=11.3, Zn=3.8	Dissolved: UKAS (all listed) MCERTS(Waters)- Trade Effluent only (Al, Cd, Cr, Cu, Ni, Pb, Zn)  Total: Not Accredited
DETSC 2303	Total Hardness (By Calculation)	The concentrations of calcium and magnesium are determined using the appropriate methodologies. The hardness is a measure of the sum of the calcium and magnesium concentration expressed as calcium carbonate.	Standard Methods for the Examination of Water and Wastewater Part 3120 B – 21st Edition 2005 APHA, AWWA, WEF	n/a	UKAS
DETSC 2304	Zinc Equivalent in Soil (By Calculation)	The concentrations of copper, nickel and zinc concentrations are determined using the appropriate methodologies. The zinc equivalent is a measure of the combined toxicity of the three metals, relative to the toxicity of zinc.	n/a	n/a	Not Accredited
DETSC 2306	Metals in Waters by ICP-MS  Ag, Al, As, Ba, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Sn, V, Zn	Concentrations of metals in water are determined by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS).  Any metals not listed can be determined but are not accredited under UKAS.	Standard Methods for the Examination of Water and Wastewater Part 3125 B – 21st Edition 2005 APHA, AWWA, WEF	μg/l: Ag=0.13, Al=10.0, As=0.16, Ba=0.26, Ca=90, Cd=0.03, Co=0.16, Cr=0.25, Cu=0.40, Fe=5.50, Hg=0.01, K=80, Mg=20, Mn=0.22, Mo=1.1, Na=70, Ni=0.50, P=18.0, Pb=0.09, Sb=0.17, Se=0.25, Sn=0.40, V=0.60, Zn=1.3	Dissolved: UKAS (all listed) Total: Not Accredited

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Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2320	Total Sulphur in Soil by ICP	Sulphur compounds in soil are extracted using aqua regia and the insoluble residue is removed by filtration. The concentration of sulphur in the filtrate is determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES). Loss of sulphur as H2S is prevented by oxidation of the sulphur compounds to sulphate by the aqua regia.	TRL 447 Sulphate Specification for Structural Backfills 2005 BRE SD1 Concrete in Aggressive Ground 2005	0.01%	UKAS
DETSC 2321	Total Sulphate content of Soil by ICP-OES	The sulphate in the soil is extracted in dilute hydrochloric acid and the insoluble residue is removed by filtration. The filtrate is made up to volume and the concentration of sulphate in the filtrate is determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES).	BS1377 : Part 3: 1990 Method 5 BS1377 : Part 1 : 1990	0.01%	UKAS MCERTS(Soils)
DETSC 2322	Total Potential Sulfate and Total Oxidisable Sulphur (By Calculation)	Sulphur compounds in soil are extracted using aqua regia and the insoluble residue is removed by filtration. The concentration of sulphur in the filtrate is determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES). Loss of sulphur as H2S is prevented by oxidation of the sulphur compounds to sulphate by the aqua regia. The wavelength used for identification and quantification of sulphate is 181.972nm.  The sulphate in the soil is extracted in dilute hydrochloric acid and the insoluble residue is removed by filtration. The filtrate is made up to volume and the concentration of sulphate in the filtrate is determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES). The wavelength used for identification and quantification of sulphate is 181.972nm.  The two results obtained from the above tests may then be combined to calculate the Total Potential Sulphate and Total Oxidisable Sulphur content	BS1377 : Part 3: 1990 Method 5 BS1377 : Part 1 : 1990	0.01%	Not Accredited

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Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2324	Mercury in Waters by Atomic Fluorescence Spectroscopy	Waters and aqueous samples are preserved by fixing with concentrated nitric acid. Treatment with tin (II) chloride reduces mercury (II) to mercury (0) vapour which is detected using atomic fluorescence spectrometry.	Standard Methods for the Examination of Water and Wastewater Part 3112 B – 21st Edition 2005 APHA, AWWA, WEF  PSA Method – Millennium Merlin Method for Total Mercury in Drinking, Surface, Ground, Industrial and Domestic Wastewaters and Saline Waters	0.05μg/l	UKAS
DETSC 2325	Mercury in Soil Atomic Fluorescence Spectroscopy	The mercury is extracted from soil in aqua regia with gentle refluxing. The extract is filtered to remove particulates and diluted to volume. Treatment with tin (II) chloride reduces mercury (II) to mercury (0) vapour which is detected using atomic fluorescence spectrometry.	PSA Method – Millennium Merlin Method for Mercury in Sludge, Soils and Sediments	0.05 mg/kg	UKAS MCERTS(Soils)
DETSC 2332	Inorganic and Methyl Mercury Speciation	Soils are air-dried and crushed before being subjected to a two-stage microwave extraction procedure for Inorganic (Hg(II)) and Methyl (MeHg) mercury.  Waters and aqueous samples are filtered to remove particulates.  An aliquot is separated via HPLC before treatment with bromate-bromide and tin (II) chloride to generate mercury and the mercury is determined by atomic fluorescence spectroscopy.	USEPA Method 3200 – Mercury Species Fractionation and Quantification by Microwave Assisted Extraction.  PSA Application Note 053 – Mercury Speciation Using The Millenium Merlin Speciation System	Soil: 100µg/kg Water: 1µg/l	Not Accredited
DETSC 2333	Elemental Mercury Speciation	Soils, waters and aqueous samples are tested on an as- received bases. A known quantity of sample is extracted using argon and the released elemental mercury is trapped. The trapped mercury is released upon heating in a scarifier module and determined by atomic fluorescence spectroscopy.		<b>Soil:</b> 0.6μg/kg <b>Water:</b> 1μg/l	Not Accredited



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 2400	Unified Barge Bioaccessible Metals in Soils	The Unified BARGE Method (UBM) is a an in vitro method for simulating the human digestive system. Synthetic digestive fluids are used to simulate the fluids present in the body.  Both inorganic solutions (Containing inorganic salts such as KCl, NaCletc), and organic solutions (Containing organic compounds such as Urea, Glucose etc) are mixed with enzymes to produce 4 Synthetic digestive fluids saliva (S), Gastric fluid (G), duodenal fluid (D) and bile (B). These solutions are then used to mimic the effect of a sample passing through a human gastro intestinal tract by shaking portions of the sample at 37°C, human body temperature (17.4).	EPA 9200.2-86 April 2012- Standard Operating Procedure for an In Vitro Bioaccessibility Assay for Lead in Soil  BGS Chemical& Biological Hazards Programme Open Report OR/07/027 - Inter-laboratory Trial of a Unified Bioaccessibility Procedure	V = 1.0mg/kg Cr = 5.0mg/kg Co = 1.0mg/kg Ni = 5.0mg/kg As = 0.5mg/kg Se = 0.5mg/kg Cd = 0.5mg/kg Pb = 1.0mg/kg	Not Accredited
DETSC 3001	Solvent Extractable Matter in Soil	Soil samples are extracted with a water-immiscible solvent and filtered to remove the water. The solvent is evaporated and the amount of extractable matter in the sample is determined gravimetrically.	In-house method based on:- Problems Arising from the Redevelopment of Gas Works and Similar Sites - AERE Harwell Laboratory 1981.  Environmental Agency The Determination of Material Extractable by Carbon Tetrachloride and of Certain Hydrocarbon Oil and Grease Components in sewage Sludge  — 1978	40mg/kg	Toluene & Cyclohexane: UKAS Other Solvents: Not Accredited
DETSC 3002	Oil & Grease/Solvent Extractable Matter in Waters	A known volume of sample is acidified to pH<2 and extracted three times with an organic solvent, such as n-Hexane, in a separating funnel. The solvent is removed by evaporation and the amount of extractable matter in the sample is determined gravimetrically.	APHA 21st Edition, 2005 – Method 5520 B. Oil & Grease - Partition Gravimetric Method  USEPA Method 1664, Revision A: n- Hexane Extractable Material (HEM: Oil & Grease) and Silica Treated N- Hexane Extractable Material (SGT- HEM; Non Polar Material) by Extraction and Gravimetry.	1mg/l for 500ml sample	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 3049	Elemental Sulphur in Soils and Waters by HPLC	Soils are extracted in dichloromethane (DCM) by sonication. The elemental sulphur concentration is determined by high performance liquid chromatography (HPLC) with UV detection using a C <sub>18</sub> (e.g. 250mm x 4.6mm) column and a mobile phase composed of 95% methanol and 5% water.  Waters and aqueous extracts of soils are extracted using DCM in a separating funnel, filtered, and the concentration determined using HPLC.	National Grid Property Holdings Limited, Methods for the Collection and Analysis of Samples from National Grid Sites, Version 1, September 2006. Section 3.12 Soil Analysis: Elemental Sulphur.	Soil: 0.75mg/kg Waters: 90ug/l	Soil: UKAS MCERTS(Soils) Water: UKAS
DETSC 3072	Aliphatic / Aromatic TPH by GC-FID	Aliphatic and aromatic petroleum hydrocarbons (C <sub>10</sub> -C <sub>35</sub> ) are extracted from soil and water using n-Hexane. The fractions are separated by solid phase extraction using silica columns, whereby the aliphatic fraction is eluted first with n-Hexane and the aromatic portion is eluted second with dichloromethane. The total, aliphatic, and aromatic concentrations are determined by gas chromatography flame ionisation detection (GC-FID) using a capillary column and hydrogen as the carrier gas. The chromatographic data is further characterized by subdivision into approximate boiling point/carbon number ranges with respect to n-alkane retention time markers.	National Grid Property Holdings Limited, Methods for the Collection and Analysis of Samples from National Grid Sites, Version 1, September 2006. Section 3.12 Soil Analysis:  Draft TNRCC Method 1006	Soil mg/kg: AL10-12 = 1.5 AL12-16 = 1.2 AL16-21 = 1.5 AL21-35 = 3.4 AR10-12 = 0.9 AR12-16 = 0.5 AR16-21 = 0.6 AR21-35 = 1.4  Water: lug/l	Soil: UKAS MCERTS(Soils) (C10-C35 only)  Water: Not Accredited
DETSC 3301	PAH in Soil by GC-FID	Soils and associated materials are extracted in dichloromethane (DCM) using sonication. The PAH concentration is recorded both as "Total PAH" and as "Speciated PAH", specified in terms of the 16 US EPA "Priority Pollutant" Polycyclic Aromatic Hydrocarbons. Concentrations are determined by gas chromatography using a BPX 50 (30m; 0.25µm ID; 0.25µm film) capillary column (or equivalent).	In-house method based on US EPA Method 8100, Polynuclear Aromatic Hydrocarbons	0.5 mg/kg each 1.6 mg/kg Total PAH	UKAS (16 PAH's only)
DETSC 3302	Hexane / Acetone Extracted PAH in Soil by GC-FID	Soils are extracted into hexane: acetone by shaking. The PAH concentration is recorded both as "Total PAH" and as "Speciated PAH", specified in terms of the 16 US EPA "Priority Pollutant" Polycyclic Aromatic Hydrocarbons. Concentrations are determined by gas chromatography using a BPX 50 (30m; 0.25µm ID; 0.25µm film) capillary column (or equivalent).	In-house method based on US EPA Method 8100, Polynuclear Aromatic Hydrocarbons	0.1 mg/kg each 1.6 mg/kg Total PAH	Not Accredited



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 3303	Polyaromatic Hydrocarbons in Soils by GC-MS	The PAHs in the soil sample are extracted into hexane: acetone by shaking. The PAHs in the extract are separated by gas chromatography and identified by the mass selective detector. The concentration of each PAH is determined by referencing individual mass peak areas to the appropriate internal standard mass peak area. Quantification is carried out within the instrument software.	In-house method based on EPA Method 8270- US EPA Method 8270, Revision C, Semivolatile Organic Compounds by Gas Chromatography – Mass Spectrometry (GC/MS)	0.03 mg/kg each 0.10 mg/kg Total PAH	UKAS (All 16 PAH's) MCERTS (not Fluorene, Anthracene, Chrysene or Total)
DETSC 3304	Polyaromatic Hydrocarbons in Waters by GC-MS	The PAHs in the water sample are extracted into dichloromethane by shaking. The PAHs in the extract are separated by gas chromatography and identified by the mass selective detector. The concentration of each PAH is determined by referencing individual mass peak areas to the appropriate internal standard mass peak area. Quantification is carried out within the Instrument software.	In-house method based on EPA Method 8270- US EPA Method 8270, Revision 3, Semivolatile Organic Compounds by Gas Chromatography – Mass Spectrometry (GC/MS)  In-house method based on EPA Method 3510C- EPA Method 3510C, Revision 3, Separatory Funnel Liquid- Liquid Extraction	10 ng/l each	UKAS (16 PAH's only)
DETSC 3311	Extractable Petroleum Hydrocarbons (EPH) in Soil, Ballast and Water	This method is designed to determine total concentrations of extractable petroleum hydrocarbons (EPH) in solid and aqueous matrices. This method uses a dichloromethane (DCM) extraction followed by quantification using gas chromatography/flame ionisation detection (GC-FID) analysis using a 1:1 mixture of diesel and mineral oil as calibration standards and n-alkane markers to establish the boiling point ranges. This method is used for the quantitative analysis of "Total EPH" (C10-C40) and as "Speciated EPH", specified in terms of the "diesel range" (C10-C24), and "mineral oil range" (C24-C40).	USEPA Method 3550C – Ultrasonic Extraction USEPA Method 8015B – Non- Halogenated Organics Using GC/FID	Soil: 10 mg/kg Ballast: 10mg/kg Water: 10µg/l	Soil: UKAS MCERTS(Soils) Water: UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 3312	Hexane Extractable Petroleum Hydrocarbons (HPH)	This method is designed to determine total concentrations of extractable petroleum hydrocarbons (EPH) in solid matrices. This method uses a hexane: acetone (9.4) extraction followed by quantification using gas chromatography/flame ionisation detection (GC-FID) analysis using a 1:1 mixture of diesel and mineral oil as calibration standards and n-alkane markers to establish the boiling point ranges. This method is used for the quantitative analysis of "Total EPH" (C10-C40) and as "Speciated EPH", specified in terms of the "diesel range" (C10-C24) and "mineral oil range" (C24-C40).	USEPA Method 8015B – Non- Halogenated Organics Using GC/FID	<b>Soil:</b> 5 mg/kg	Not Accredited
DETSC 3321	BTEX, MTBE & PRO in Soils by Headspace GC- FID	BTEX, MTBE and PRO in soils are determined via Headspace GC-FID. Individual aromatic compounds are quantified by external calibration against known standards. PRO range is banded using alkane markers to define retention time windows.	EPA Methods 5021 and 8015D	0.01 mg/kg	UKAS MCERTS(Soils) Not accredited for PRO range (C5-10)
DETSC 3322	BTEX, MTBE & PRO in Waters & Leachates by Headspace GC-FID	BTEX, MTBE and PRO in soils are determined via Headspace GC-FID. Individual aromatic compounds are quantified by external calibration against known standards. PRO range is banded using alkane markers to define retention time windows.	EPA Methods 5021 and 8015D	1 μg/l	UKAS
DETSC 3401	PCBs in Soils by GC-MS	An as-received soil sample is extracted in Hexane:Acetone (1:2) using sonication methodology. The sample is separated by gas chromatography and identified by mass selective detector. Quantification is carried out within the instrument software.	EPA Method 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography.	μg/kg PCB 28=1.25 PCB 52=1.12 PCB 101=1.32 PCB 118=1.43 PCB 153=2.08 PCB 138=1.35 PCB 180=1.42	UKAS MCERTS(Soils)



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 3402	Polychlorinated Biphenols in Waters by GC/MS	The water sample is extracted in DCM on a reciprocal shaker. The sample is separated by gas chromatography and identified by mass selective detector. Quantification is carried out within the GC-MS software using an internal standard.	EPA Method 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography.	ng/l PCB 28=208 PCB 52=161 PCB 101=211 PCB 118+123=513 PCB 153=163 PCB 138=107 PCB 180=132 PCB 105=133 PCB 105=133 PCB 114=253 PCB 126=399 PCB 156=253 PCB 157=119 PCB 167=248 PCB 169=181 PCB 189=271 PCB 77=202 PCB 81=186	UKAS
DETSC 3432	Volatile Organic Compounds in Waters by Headspace GC- MS	The method covers the range of volatile organic compounds with boiling points up to 220°C.  Water samples are heated and agitated in a crimp cap vial. This drives the volatile components in to the headspace. An aliquot of the headspace is taken and injected in to a gas chromatograph with mass selective detection (GC-MS). The detector operates in full scan mode and is calibrated with standards containing known concentrations of the compounds of interest.	USEPA Method 8260B Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS), Revision 2, December 1996	1 ug/l except: DCM (27), 2,2-Dichloropropane (2), Bromochloromethane (4), Bromodichlorometha ne (4), m+p-Xylene (2), 1,3- Dichlorobenzene (2)	UKAS except: Trichlorofluoromet hane, Methylene Chloride, 1,1,1- Trichloroethane,



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 3433	Semi-Volatile Organic Compounds in Soils by GCMS	The SVOCs in the soil sample are extracted into DCM: Acetone by shaking. The SVOCs in the extract are separated by gas chromatography and identified by the mass selective detector. The concentration of each SVOC is determined by referencing individual mass peak areas to the appropriate internal standard mass peak area.  Quantification is carried out within the instrument software.	In-house method based on EPA Method 8270- US EPA Method 8270, Revision 3, Semi volatile Organic Compounds by Gas Chromatography – Mass Spectrometry (GC/MS)	Individual SVOCs 0.1 mg/kg	UKAS
DETSC 5001	Ash Content of Coal	The ash content of the sample is determined gravimetrically. A known weight of the sample is placed in a prepared ash crucible and placed in a furnace. The furnace is heated to 750°C ±10°C where the temperature is maintained. Following combustion the crucible and sample are removed, cooled and reweighed.	ASTM D3174-11 BS 1016-104.4 1998 ISO 1171: 2010	0.1%	UKAS
DETSC 5002	Ash & LOI Content of Solid Biomass & Solid Recovered Fuels	The ash and LOI content of the sample is determined gravimetrically. A known weight of the sample is placed in a prepared ash crucible and placed in a furnace. The furnace is heated to 550°C ±10°C where the temperature is maintained. Following combustion the crucible and sample are removed, cooled and reweighed.	BS EN 14775:2009 BS EN 15403:2011	0.1%	UKAS
DETSC 5003	Volatile Matter Content of Solid Riomass Solid Riomass Solid Riomass Solid Riomass Solid Content of Solid Riomass		BSEN15148:2009 – Solid Biofuels Determination of the Content of Volatile Matter BS EN 15402:2011 - Solid Recovered Fuels - Determination of the Content of Volatile Matter	0.1%	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 5004	Total Moisture / Dry Solids Content of Solid Biomass & Solid Recovered Fuels & Coal	The sample produced for general analysis is placed into a suitable prepared and weighed tray and reweighed. The sample is dried at 105°C to constant weight and the total moisture / dry solids content is calculated from the reduction in weight.	BSEN 14774 Parts 1 & 2 2009  DD CEN/TS 15414 Parts 1 & 2: 2010	0.1%	UKAS
DETSC 5005	Analysis Moisture Content of Solid Biomass, Solid Recovered Fuels & Coal	The sample produced for total moisture determination in accordance with DETSC 5009 or DETSC 5010 is placed in a suitable pre-weighed tray and reweighed. The sample is then dried at $105^{\circ}\text{C}$ $\pm 2^{\circ}\text{C}$ to constant weight and then weighed again. The analysis moisture content is calculated from the reduction in weight.	BS EN 14774-3 2009 BS EN 15414-3 2011 BS 1016-104.1 -1999 ISO 11722 – 1999	n/a	UKAS
DETSC 5007	Calorific Value of Solid Biomass, Solid Recovered Fuels & Coal	Calorific value of a material is determined in an Isoperbol calorimeter by burning it in pure oxygen in a combustion bomb. A known amount of sample is placed in a combustion bomb which is then pressurised to 30bar with oxygen. A calorimeter bucket is filled with a known amount of deionised water which is placed in the calorimeter and the bomb placed in the bucket. The system is allowed to equilibrate and the bomb fired by electrical connection. The difference in temperature of the water in the calorimeter bucket caused by the ignition of the material in the bomb is measured and the calorific value calculated	BS EN 14918: Solid biofuels – Determination of calorific value  BS EN 15400: Solid recovered fuels - Determination of calorific value	1MJ/kg	UKAS
DETSC 5008	the comple material is calculated making any necessary		BS 1016-105 1992 ISO 19208 ASTM 5865	1MJ/kg	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 5009	Sample Preparation of Solid Biomass & Solid Recovered Fuels	If analysis is required on the original material (i.e. Bulk Density) a sub-sample will be taken after initial mixing after which the sample is then reduced by cutting/chopping oversized pieces of material. The material is then mixed and subdivided by manual means during which process representative samples are taken for analysis i.e. total moisture. The remainder of the sample is dried and then reduced to <1mm and again mixed and subdivided to produce the sample for laboratory analysis.	BS EN 14780:2011 BS EN 15413:2011	n/a	Not Accredited
DETSC 5010	Sample Preparation of Coal	If required the sample received is first mixed and a sample taken for bulk density or bulk density is carried out on the whole initial sample. The remaining sample or the whole sample used for bulk density is then reduced to <10mm preferably by jaw crushing. The material is then mixed and subdivided by mechanical or manual means during which process representative samples are taken for any analysis required at this stage i.e. total moisture, The remainder of the sample is again mixed and subdivided to produce the sample for laboratory analysis which may require drying prior to crushing to <212 microns. If there is excessive water content a pre- drying stage of the whole sample may have to be carried out before sample blending and subdivision commences.	BS ISO 13909-4: 2001	n/a	Not Accredited
DETSC 5011	Calculation of Fixed Carbon Content of Cool  The total moisture, analysis moisture, ash and volatile matter content are determined by approved methods. The		DD CENT/S 15296:2006  BS 1016.100:1994  BS ISO 17246:2005	0.1%	Not Accredited



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 5012	Determination of Biomass Content of SRF	Approximately 5g of the sample is dissolved in 150ml of 78% Sulphuric Acid for 16 hours ±2 hours after which 35ml of 30% Hydrogen Peroxide is added and the sample left for an additional 5 hours ±1 hour. At the end of this period 300ml of deionised water is added to the sample and the residue remaining filtered off using a glass fibre filter paper, washing the residue with an additional 300ml of deionised water. The filter paper and residue are placed in a pre-weighed crucible and dried at 1500C until completely dry. The filter paper is reweighed after drying and the non biomass residue determined. Corrections for carbonates content is made by determining the ash content of the original sample and the non biomass residue remaining. The result can also be expressed by percentage calorific value by performing a calorific valve on the solid captured on the filter paper.	BS EN 15440 Solid recovered fuels - Methods for the determination of biomass content	n/a	UKAS
DETSC 5013	Determination Of Carbon, Hydrogen, Nitrogen & Oxygen In Solid Biomass, Solid Recovered Fuels & Coal	A known mass of fuel is weighed into tin capsules which are dropped sequentially into the combustion reactor prior to the arrival of oxygen. The sample and tin capsule react with oxygen and combust at temperatures of 1700-1800 °C and the sample is broken down into its elemental components N2, CO2, and H2O. High performance copper wires absorb the excess oxygen not used for sample combustion. The gases flow through the gas chromatographic (GC) separation column which is kept at a constant temperature. As they pass through the GC column, the gases are separated and are detected sequentially by the thermal conductivity detector (TCD). The TCD generates a signal, which is proportional to the amount of element in the sample. The instrument software compares the elemental peak to a known standard material (after calibration) and generates a report for each element on a weight basis. The oxygen is calculated by deducting these quantities from 100 along with the moisture, ash, sulphur & chlorine contents determined by other methods.	BS EN 15104:2011 Solid biofuels - Determination of total content of carbon, hydrogen and nitrogen - Instrumental methods  BS EN 15407:2011 Solid recovered fuels - Methods for the determination of carbon (C), hydrogen (H) and nitrogen(N) content  BS EN 15296:2011 Solid biofuels - Conversion of analytical results from one basis to another	Carbon 0.10% Nitrogen 0.30% Hydrogen 0.30% Oxygen 3.55%	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 5014	Metals in Coal, SRF and Biomass by ICP	Metals in coal, solid recovered fuel (SRF) and biomass samples are extracted by microwave using Hydrogen Peroxide (to oxidise and break down organic matter) and Aqua Regia (to dissolve the matrix and hold the metals in solution). Their concentrations are determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES).	BS EN 15410 - Solid recovered fuels - Methods for the determination of the content of major elements (Al, Ca, Fe, K, Mg, Na, P, Si, Ti) BS EN 15411 - Solid recovered fuels - Methods for the determination of the content of trace elements (As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mo, Mn, Ni, Pb, Sb, Se, Tl, V and Zn) BS EN 15290 - Solid biofuels - Determination of major elements - Al, Ca, Fe, Mg, P, K, Si, Na and Ti BS EN 15297 - Solid biofuels - Determination of minor elements - As, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, V and Zn	0.1 mg/kg: As, Be, Cd, Co, Mn, Ni, P, Pb, Sb, Se, Sn, Ti, V, Zn 0.2mg/kg: Cr, Cu, Tl 0.5mg/kg: Mo 1mg/kg: Al, Fe, K, Mg 5mg/kg: Ca 10mg/kg: Ag, Ba, Rh, Sr, Te	UKAS: Al, As (SRF only), Ca, Cd, Co, Cr, Cu, K, Mg, Mn, Na (SRF only), Ni, P, Pb, Se, Sn, Tl, V, Zn  All other metals not accredited
DETSC 5015	Mercury in Coal, SRF and Biomass by Atomic Fluorescence Spectroscopy  The mercury is extracted from coal, SRF and biomass in aqua regia with gentle refluxing. The extract is filtered to remove particulates and diluted to volume. Treatment of the resulting solution with tin (II) chloride reduces mercury (II) to mercury (0) vapour which is then quantitatively detected using atomic fluorescence spectrometry.		PSA Method – Millennium Merlin Method for Mercury in Sludge, Soils and Sediments.	0.055mg/kg	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 5016	Total Sulphur Content Of Coal, SRF And Biomass	Sulphur compounds in SRF and biomass are extracted using aqua regia / hydrogen peroxide and the insoluble residue is removed by filtration. The concentration of sulphur in the filtrate is determined by Inductively Coupled Plasma Optical Emission Spectroscopy (ICP-OES). Loss of sulphur as H2S is prevented by oxidation of the sulphur compounds to sulphate by the aqua regia. The use of hydrogen peroxide enhances the oxidation properties of nitric acid especially in the digestion of organics.  Sulphur compounds in coal are determined by ICP-OES from the aqueous washings of the combustion products after firing in a bomb calorimeter.	TRL Report TRL447 (Updated) - Sulphate specification for structural backfills 2005	0.001mg/kg	UKAS
DETSC 5017	Sulphur, Chlorine, Fluorine & Bromine Content of Solid Biomass, Solid Recovered Fuels and Coal by IC	A known weight of fuel is burnt in a pressurised bomb in pure oxygen. After firing of the bomb, it is stood for a minimum of five minutes to allow the combustion products to settle then the oxygen is slowly released over a period of at least three minutes. The bomb is then taken apart and the bomb electrodes rinsed with deionised water into the inside of the bomb. These washings are then decanted into a 50ml volumetric flask. The inside of the bomb is rinsed with deionised water and the washings added to those in the volumetric flask. The contents of the volumetric flask are made up to volume with deionised water and stored for the analysis of sulphur, chloride, fluoride and bromide by ion chromatography.	Operating Instruction Manual No. 442M 6200 Parr Oxygen Bomb Calorimeter  Operating Instruction Manual No. 205M 1108 Oxygen Combustion Bomb  Operating Instruction Manual No. 454M 6510 Water Handling System	0.01% Chlorine 0.01% Fluorine 0.01% Bromine 0.04% Sulphur (Coal only)	UKAS



Method Number	Title	Description	Reference	LOD	Accreditation Status
DETSC 5018	XRF Analysis of Coal, Biomass, SRF and Cement	When X-rays are targeted at a material they will cause electrons to be ejected from the component atoms (Ionisation). The ejection of electrons will cause the electronic structure of the component atoms to become unstable resulting in electrons from the higher energy outer orbitals "falling" into the inner orbitals to compensate. This causes a release of energy in the form of a photon equal to the energy difference between the two orbitals involved. Thus the material emits radiation which has energy characteristics of the atoms present.  In energy dispersive X-ray fluorescence the fluorescent X-rays emitted are directed to a detector from which the data is processed by a multichannel analyser, producing a digital spectrum which is processed to obtain analytical data.  The instrument analytical parameters are set up for the matrix type. A sample cell is prepared by placing a piece of prolene film over the outer cell and then inserting the inner cell. This gives a complete cell with a clear prolene base. A portion of the sample is placed into the cell and then analysed.	Rigaku NEX CG EDXRF instruction manual	Cement:  0.01% BaO, Cr <sub>2</sub> O <sub>3</sub> , CuO, PbO, Rb <sub>2</sub> O, SrO, ZnO 0.02% Cl, V <sub>2</sub> O <sub>5</sub> 0.05% TiO <sub>2</sub> 0.1% Mn <sub>2</sub> O <sub>3</sub> , P <sub>2</sub> O <sub>5</sub> , SO <sub>3</sub> 0.5% K <sub>2</sub> O 1% Al <sub>2</sub> O <sub>3</sub> , CaO, CdO, Co <sub>2</sub> O <sub>3</sub> , Fe <sub>2</sub> O <sub>3</sub> , MgO, Na <sub>2</sub> O, NiO, SiO <sub>2</sub> , Y <sub>2</sub> O <sub>3</sub> Fuel: 0.01% Co, Cr, Cu, I, Li, Mn, Ni, P, Pb, Sn, Ti, V, Zn 0.02% Al, Ba, S, Si 0.1% Mg 0.2% Ca 0.5% As, Cd, Hg, Mo, Na, Sb, Se, Th, Tl 1% Ag	UKAS Al, As, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Mg, Mn, Mo, Na, Ni, P, Sb, Si, Sn, Tl, Ti, V, Zn Al2O3, BaO, CaO, Cl, Cr2O3, CuO, Fe2O3, K2O, MgO, Mn2O3, Na2O, P2O5, PbO, Rb2O, SiO2, SO3, SrO, TiO2, V2O5, ZnO  All other testing not accredited
DETSC 5019	Determination of Biodegradable Municipal Waste Content (Compositional Analysis)	The method is based on handpicking the BMW fraction from the municipal waste sample, and then weighing the amount of BMW sorted and expressing this as a percentage on a wet weight basis of the weight of the whole municipal waste sample.	ENVIRONMENT AGENCY: Guidance on monitoring of MBT and other treatment processes for the landfill allowances schemes (LATS and LAS) for England and Wales	n/a	Not Accredited
DETSC 5020	Determination of Bulk Density in Solid Biomass and Solid Recovered Fuels	The test portion is filled into a standard container of a given size and shape and weighed afterwards. Bulk density is calculated from the net weight per standard volume and reported for the moisture content.	BS EN 15103:2009 Solid Biofuels- Determination of bulk density  BS EN 15401:2010 Solid Recovered Fuels- Determination of bulk density	0.5kg/m <sup>3</sup>	Not Accredited



Method Number	Title Description		Reference	LOD	Accreditation Status
DETSC 5021	Auto Ignition Temperature	A quantity of the sample is placed into a metal tray or crucible and placed into an oven or furnace. The temperature of the oven / furnace is increased in predefined increments and the temperature in which the sample ignites is noted.	None	25°C	Not Accredited

**Issue Date:** January 2015 **Issue No:** V 7.0 **Issued By:** J Coffer **Page:** 31 of 31

Slag Testing Testing (Tested Externally)



This testing is outstanding and will be forwarded through separately when available.

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office

Machine Excavated (JCB 3CX)

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

Start Date:

17/06/2020

1 of 1

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Project:

Client:

Method (Equipment):

# TRIAL PIT RECORD Eston Road Instrusive Works Exploratory Hole No. Tees Valley Combined Authority Clay Lane Commercial Park ATK\_TP\_009

E: N:

Ground Level (m):

**SAMPLES & TESTS** STRATA Test Result Nater Reduced Depth Depth Legend Description MADE GROUND (Compacted grey sandy gravel. Sand is fine to 0.20 coarse and includes mainly powdered concrete and ash. Gravel is 0.20 J1 (0.40) fine to coarse subangular and includes concrete, slag and clinker. 0.40 0.50 B2 \Slag content is 25-50%. Slag is grey vesicular). ES3 MADE GROUND (Red, brown black sandy gravel with cobbles and (0.40)boulders. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular and includes slag, red and yellow brick, ash and concrete. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular and include slag, concrete, wood and metal. Slag content is 0-25%. Slag is grey vesicular. Boulders are angular and include concrete and metal railway track lines). 1.10 .14 1.30 B5 1.50 ES6 Soft to firm brown grey mottled black slightly sandy CLAY with 9" square wooden piles (assumed to be piles). (Reworked clay. Sand is fine to medium. Slight hydrocarbon odour protect from wooden piles). 2.10 J7 (2.50) noted from wooden piles). 2.30 B8 Firm and friable becoming stiff grey red sandy slightly gravelly CLAY with occasional silty laminae. Sand is fine to medium. Gravel is fine to medium subangular and includes sandstone and mudstone. 3.10 J9 3.30 Complete at 3.50m BGL. **PLAN GROUNDWATER** Saturated strata at 0.60m BGL (Slight inflow). 3.50 Face A Face D 1.20 Face I Orientation 000° **STABILITY**  $\varpi$ Pit sides and base stable throughout excavation. Face C

ADD	ITIONAL INFORM	MATION	GENERAL REMARKS			
Sketch Diagram:	No Sketch Taken		(1) HSV unsutiable on e	exacavted blocks du	e to friable nature.	
Photographs:	Yes	See additional sheets.				
All dimensions in metres		For explanation of		Checked by:	Logged by: D. Portsmouth	Contract No. 4287

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

Tees Valley Combined Authority

Logged by: D. Portsmouth

Contract No. 4287

Checked by:

Clay Lane Commercial Park E: N:

ATK\_TP\_010

TRIAL PIT RECORD PRELIM1 Project: Eston Road Instrusive Works Exploratory Hole No. Client: Location:

					E: N:			
Method (Equipment):	Machine Excavated	d (JCB 3CX)			Ground Level (m):	Start Date: 17/06/2020	Sheet: 1 of 1	
SAMPLES &	TESTS				STRATA			
Depth Type No	Test Result	Reduced Level	Legend (	Depth Thickness)	Description			
0.30 J1 0.40 B2 0.50 J3 0.70 B4 0.90 ES5 1.30 J6 1.50 B7 1.60 ES8 2.30 J9 2.50 B10 3.00 J11 3.20 B12				(0.50)   (0.50)   (0.50)   (0.50)   (1.20)   (1.20)   (0.60)   (1.20)   (0.60)   (1.20)   (0.70)   (1.20)   (1.	MADE GROUND (Grey graves subrounded and includes slaves icular).  MADE GROUND (Grey black and includes mainly ash. Grancludes concrete, ash, clinked points of the sandy clay with black silty samedium).  MADE GROUND (Soft to firm sandy clay with black silty samedium).  Reworked material).  MADE GROUND (Black clay points) girders and rebar 20m ncludes clinker and red brick firm friable and stiff red brow with silty sand bands. Sand is medium subangular and inclinations.	g. Slag content savel is fine to medium. State of the savel is content savel	Sand is fine to coarse coarse subangular and d slag. Slag content is nottled black silty slightly ses. Sand is fine to and with frequent metal coarse angular and slaghtly slightly gravelly CLAY m. Gravel is fine to	
Face D	PLAN 3.80 Face A  Orientation 000° Face C	Face B	1.20	Saturated	DWATER d strata at 2.50m BGL (Slight in			
ADDIT	ΓΙΟΝΑL INFORMA	TION			AL REMARKS unsutiable on exacavted blocks	s due to friable r	nature.	
Photographs:	Yes	See addit						

For explanation of symbols and abbreviations see Key Sheets

All dimensions in metres Scale 1:50

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Location:

Start Date:

Logged by: D. Portsmouth

Checked by:

Contract No.

4287

Clay Lane Commercial Park E: N:

Ground Level (m):

Status:-

PRELIM1

Exploratory Hole No.

ATK\_TP\_011

	Head Office: Regional Office:	Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL	Tel: 0191 387 4700 Fax: 019 Tel: 01772 735 300 Fax: 017
		TRIAL PIT RECORD	
Project:		Eston Road Instrusive Works	

Tees Valley Combined Authority

Client:

Method (Equipment):

wethod (Equipm		Machine Excavat	ed (JC	B 3CX	)			Ground Level (m):	17/06/2020	Sneet:	1 of 1
SAN	/IPLES &	TESTS				STRATA					
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		D	escription		
						(0.50)	subr	DE GROUND (Grey gravel ounded and includes slag cular).	. Gravel is fin . Slag conten	e to coar t 100%. S	se subangular to Slag is grey
0.60 0.80 0.90	J1 B2 ES3					- - (1.00)	Sand subr cont	DE GROUND (Yellow browd is fine to coarse. Gravel ounded and includes slagent is 50-75%. Slag is redudes slag. Slag content is	is fine to coa , concrete, cli /brown. Cobb	rse subar inker and bles are a	ngular to red brick. Slag ngular and
1.70 1.80	J4 B5					- - - -	firm occa	to firm brown grey mottled and friable becoming stiff isional silty laminae. Sand en into upper section of cla ).	grey red brow is fine to me	vn sandy dium. Wo	CLAY with oden piles
2.70 2.80	J6 B7					3.50					
								plete at 3.50m BGL.			
		PLAN 3.50 Face A			<u> </u>	GROUN Saturated		ATER ata at 0.90m BGL (Slight infl	ow).		
Orientation Orientation Face B Face C					STABILI Pit sides		base stable throughout exca	avation.			
ADDITIONAL INFORMATION				GENER	AL F	REMARKS					
Sketch Dia	gram:	No Sł	ketch Ta	ıken							
Photograp	ohs:	Yes		See add							

For explanation of symbols and abbreviations see Key Sheets

All dimensions in metres Scale 1:50

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Head Office: Regional Office

Machine Excavated (JCB 3CX)

Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL

Tel: 0191 387 4700 Fax: 0191 387 4710

Start Date:

17/06/2020

1 of 1

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	5	3
L	5	

Method (Equipment):

# TRIAL PIT RECORD Project: Eston Road Instrusive Works Exploratory Hole No. Client: Tees Valley Combined Authority Clay Lane Commercial Park ATK\_TP\_012

E: N:

Ground Level (m):

**SAMPLES & TESTS STRATA** Water Reduced Depth Depth Legend Description MADE GROUND (Grey gravel. Gravel is fine to coarse subangular to 0.30 subrounded and includes slag. Slag content is 100%. Slag is grey vesicular). (0.40) 0.40 MADE GROUND (Grey black sandy gravel. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular and includes concrete, ash, clinker, red brick and slag. Slag content is 0.90 J3 0-25%. Slag is grey vesicular). Soft to firm brown grey mottled black slightly sandy CLAY. Sand is (1.10) 1.20 B4 fine to medium. FS5 1.40 (Possibly reworked). Firm and friable becoming stiff grey red brown sandy CLAY with occasional silty laminae. Sand is fine to medium. 2.00 J6 (1.00) 2.30 B7 HSV 105 (44)kPa Stiff red brown slightly sandy slightly gravelly CLAY. Sand is fine to 2.90 J8 medium. Gravel is fine to medium subangular and includes 衼 (0.70) mudtsone and siltstone. 3.20 В9 Complete at 3.50m BGL.

	PLAN	
	3.50	
	Face A	II
Face D	Orientation 000° →	
	Face C	

GROUNDWATER

No groundwater inflow observed.

STABILITY

Pit sides and base stable throughout excavation.

ADD	ITIONAL INFORMA	ΓΙΟΝ
Sketch Diagram:	No Sketo	ch Taken
Photographs:	Yes	See additional sheets.

GENERAL REMARKS

(1) HSV unsutiable on exacavted blocks due to friable nature (0.00-2.80m BGL).

All dimensions in metres Scale 1:50

For explanation of symbols and abbreviations see Key Sheets

Checked by: Logged by: D. Portsmouth

Contract No. 4287

## ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 0191 387 4700 Fax: 0191 387 4710 Tel: 01772 735 300 Fax: 01772 735 999

Machine Excavated (JCB 3CX)

Start Date: 19/06/2020

Logged by: D. Portsmouth

Checked by:

Contract No.

4287

1 of 1

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Project:

Client:

Method (Equipment):

TRI	AL PIT RECORD	PRELIM1
Eston Road Instru	sive Works	Exploratory Hole No.
Tees Valley Combined Authority	Clay Lane Commercial Park	ATK_TP_001

E: N:

Ground Level (m):

<b>I</b>									
SAMPLES & TESTS						STRATA			
Depth Type No	e Test Result	Water	Reduced Level	Legend	Depth (Thickness)	Description			
0.20 J1 0.40 B2 0.60 ES3 1.20 J4 1.40 B5 2.20 J6 2.60 B7	}				0.15 ((1.55) - (0.90) - - - - -	coarse and includes mainly concrete and ash. Gravel is fine to coarse subangular and includes slag and concrete. Slag content is 50-75%. Slag is grey vesicular).  MADE GROUND (Grey brown sandy gravel with cobbles. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular and includes slag, concrete, brick, ash, metal and clinker. Slag content is 25-50%. Slag is grey vesicular. Cobbles are angular slag, red brick and concrete. Slag content is 0-25%. Slag is of grey vesicular).  MADE GROUND (Grey brown clayey sandy gravel with cobbles and reworked grey brown soft silty CLAY bands. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular and includes slag, concrete, brick, ash, metal and clinker. Slag content is 25-50%. Slag is grey vesicular. Cobbles are angular and include			
	PLAN					INDWATER dwater seepage at 2.10m BGL (Slow inflow).			
Face A  Orientation  000°  000°  000°  000°  000°					STABI				
Face C						es and base stable throughout excavation.			
ADI	DITIONAL INFORM	MATIO	N		GENE	GENERAL REMARKS			
Sketch Diagram: No Sketch Taken									

Yes

Photographs:

All dimensions in metres Scale 1:50

See additional sheets.

For explanation of symbols and abbreviations see Key Sheets

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

Location:

Clay Lane Commercial E: N:

Ground Level (m):

$\triangle$	Head Office: Regional Office:	Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL	Tel: 0191 387 4700 Fax: 0191 Tel: 01772 735 300 Fax: 0177
		TRIAL PIT RECORD	
Project:		Eston Road Instrusive Works	

Tees Valley Combined Authority

Client:

		PRELIM1
		Exploratory Hole No.
Parl	k	ATK_TP_002
	Start Date: 18/06/2020	Sheet: 1 of 1

Logged by: D. Portsmouth

Contract No. 4287

Checked by:

Status:-

Method (Equipm		lachine Excavat	ted (JC	В ЗСХ	)			Ground Level (m):	Start Date: 18/06/2020	Sheet:	1 of 1
			T	1	,						
SAN	1PLES &	TESTS			1	STRATA					
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness) Description					
						(0.50)	is fir	DE GROUND (Compacted ne to coarse and includes	mainly ash. G	Fravel is fi	ne to coarse
0.30 0.40	J1 B2					5.55	25-5	angular and includes slag, 50%. Slag is grey vesicular	r).		/
0.80	J3					(1.10)	is fir	DE GROUND (Grey brown ne to coarse and includes angular and includes slag, ent is 0-25%. Slag is grey	mainly ash. C red brick. as	Fravel is fi h and con	ne to coarse crete. Slag
1.30 1.40	B4 ES5					1 60	inclu	ide slag, concrete, metal a ent is 25-50%. Slag is gre 0.80m BGL 3.50m of ra	and wooden r y vesicular).	ailway sle	epers. Slag
1.80 2.00	J6 B7				* - X - X - X - X - X - X - X - X - X -		Soft	and friable grey mottled b brown grey silty slightly sa es. Sand is fine to mediun	lack silty CLA andy CLAY wi	Y gradua th root fib	lly becoming a res and sand
					× × × × × × × × × × × × × × × × × × ×	2.80					
2.90 3.00 3.20	J8 ES9 B10					(0.70)	Firm	and friable grey brown la	minated CLA	Y with silt	y lenses.
5.20	Віо					3.50	Con	nplete at 3.50m BGL.			
						-					
<u> </u>		9LAN 3.70 Face A			<b>†</b>	GROUN No groui		ATER ter inflow observed.			
Orientation Face B				- 1.00	STABILITY Pit sides and base stable throughout excavation.						
Face C ↓											
	ADDIT	IONAL INFORM	IOITA	N				REMARKS	duo to friable :	noture	
Sketch Diagram: No Sketch Taken				(1) HSV	urist	itiable on exacavted blocks	uue to mable f	ialui <del>C</del> .			
Photograp	ohs:	No		See add							

For explanation of symbols and abbreviations see Key Sheets

All dimensions in metres Scale 1:50

#### **ALLIED EXPLORATION & GEOTECHNICS LIMITED**

A	Head Office: Regional Office:	Unit 25 Stella Gill Industrial Esta Unit 20 Business Development	ate, Pelton Fell, Chester-le	-Street, Co. Durham, DH2 2RG	Tel: 0191 387	4700 Fax: 0191 387 5 300 Fax: 01772 73	387 4710				
			TRIAL PIT	RECORD			Status:- PRELIM1				
Project:		Eston Road Ir	nstrusive Works				Exploratory Hole No.				
Client:	Tees Valley Combine	ed Authority	Location:	Clay Lane Comme E: N:	ercial Park	(	ATK_TP_003				
Method (Equip	pment):		•	Ground Level (m):		Start Date:	Sheet:				

SAMPLES & TESTS    Depth   Type   Test   Reduced   Legend   Depth   Description				
MADE GROUND (Compacted grey brown black sandy gravel is fine to coarse and includes mainly ash. Gravel is fine to coarse and includes slag, red brick, ash and concrete. Si content is 0-25%. Slag is grey vesicular).    100				
is fine to coarse and includes mainly ash. Gravel is fine to coarse and includes slag, redbrick, ash and concrete. SI content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, red brick, ash and concrete. SI content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, control is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, control is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular. Cobbles are angular and includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular.  In the coarse and includes slag, concrete and metal. Slag content is 0-25%. Slag is grey vesicular.  In the coarse and includes slag, concrete and metal. Slag concrete angular and includes slag, concrete and metal. Slag concrete slopes are angular and includes slag, concrete angular angu				
3.50 Face A  Orientation 000° STABILITY Pit sides and base stable throughout excavation.	es. Sand ers. Sand erse ag and g is grey nning odour			
Pit sides and base stable throughout excavation.				
ADDITIONAL INFORMATION  GENERAL REMARKS (1) HSV unsutiable on exacavted blocks due to friable nature.				
Photographs: No See additional sheets.				
All dimensions in metres Scale 1:50  For explanation of symbols and abbreviations see Key Sheets  Checked by: Logged by: D. Portsmouth 42:				

					TR	IAL PI	T RECORD		Status:- PRELIM1
Project:			E	ston Ro	ad Instri	usive Wo	rks		Exploratory Hole No
Client:	Tees Va	lley Combine	d Autho	ority		Location	Clay Lane Commerci E: N:	al Park	ATK_TP_004
Method (Equipr		achine Excav	ated (J0	CB 3CX	)	- '	Ground Level (m):	Start Date: 18/06/2020	Sheet: 1 of 1
SAI	MPLES & T	ESTS					STRA	TA	•
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
0.80 1.00 1.40 1.80 2.10 2.40 2.60 2.80	J1 B2 ES3 J4 B5 J6 B9 ES10				* * * * * * * * * * * * * * * * * * *	0.30 0.50 (ri.10) 1.60 1.600 - 2.20	MADE GROUND (Grey Is coarse. Gravel is fine to concrete and slag. Slag. MADE GROUND (Concr. MADE GROUND (Grey go to coarse subangular an is of vesicular. Cobbles a content is 100%. Slag is Soft and friable grey monoted.  Firm brown grey silty slig fine to medium.	coarse subangular content is 25-50%. The with 10mm reb green blue gravel and includes slag. Share subangular and of vesicular).	and includes red brick, Slag is grey vesicular). ar). Ind cobbles. Gravel is fir ag content is 100%. Slag include slag. Slag
3.50	J11				× × × × × × × × × × × × × × ×	3.50	Complete at 3.50m BGL.		

PLAN  3.50  Face A  Orientation  090°  Face C	GROUNDWATER Saturated strata at 1.60m BGL (Heavy inflow).  STABILITY Pit sides and base stable throughout excavation.

ADD	ITIONAL INFOR	MATION	GENERAL REMARK		o to frighte nature	
Sketch Diagram:	No S	Sketch Taken	(1) HSV unsutiable or	i exacavieu biocks du	e to mable nature.	
Photographs:	No	See additional sheets.				
All dimensions Scale 1:		For explanation of abbreviations se	of symbols and ee Key Sheets	Checked by:	Logged by: D. Portsmouth	Contract No. 4287

Print Date and Time: 19/06/2020 12:47:07

# ALLIED EXPLORATION & GEOTECHNICS LIMITED Head Office: Regional Office: Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, DH2 2RG Unit 26 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL Tel: 01772 735 300 Fax: 01772 735 999

	Head Office: Regional Office:	Unit 25 Stella Gill Industrial Estate, Pelton Fell, Chester-le-Street, Co. Durham, Dl- Unit 20 Business Development Centre, Eanam Wharf, Blackburn, BB1 5BL
B≣		
G		TRIAL PIT RECORD

	Р	RE	LIN	/11	
				_	 _

Project:			E	ston Ro	ad Instru	ısive Wo	orks			Explo	oratory Hole No.
Client:	Tees Va	lley Combined	Autho	rity		Location	: Clay Lan	e Commercial Pa	rk	AT	K_TP_005
Method (Equi		achine Excavat	od ( IC	D 3CV	`		Ground Le	E: N: evel (m):	Start Date: 18/06/2020	Sheet:	1 of 1
	IVI	acilile Excavat	.eu (3C	)	,				10/00/2020		1 01 1
SA	AMPLES & 7	TESTS					1	STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
0.50 0.80 1.00 1.60 1.80 2.20 2.80 2.90 3.20	0.80 B2 1.00 ES3  1.60 J4 1.80 B5 2.20 J6  2.80 B7 2.90 ES8					(2.30)	many rootlet subangular : MADE GRO is fine to coa subangular : content is 0- include slag is grey vesic at c.0.40m E East-West (at c.0.90m E East-West Soft becomi medium.	BGL 6" cast iron intact). BGL 3" broken on girm brown gre	coarse. Grave coarse. Grave coarse. Grave coard glass).  black sandy g mainly ash. G , red brick, as r vesicular. Cc and metal. Sla n pipe at south cable at northe y slightly sand	gravel with Gravel is find the and coupled	th cobbles. Sand fine to coarse ncrete. Slag e angular and it is 0-25%. Slag of pit running of pit running
Sketch D	iagram:	PLAN 3.80 Face A  Orientation 000° Face C  ONAL INFORM No Sk	IATIOI	N	litional	STAB Pit side	es and base sta	ible throughout exc		nature.	
All dim	nensions in r Scale 1:50	metres		For exp abbrev	lanation iations s	of symbo ee Key S	ols and Sheets	Checked by:	Logged D. Portsr		Contract No. 4287

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#### **TRIAL PIT RECORD**

PRELIM1

U)										-	
Project:			E	ston Ro	ad Instr	usive Wo	orks			Explo	ratory Hole No.
Client:	Tees V	alley Combined	Autho	rity		Location	: Clay Lan	e Commercial Pa E: N:	rk	ATI	K_TP_006
Method (Equip		Machine Excava	ted (J0	СВ ЗСХ	)		Ground Le		Start Date: 18/06/2020	Sheet:	1 of 1
SA	AMPLES &	TESTS						STRATA	-	1	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		ļ	Description		
0.20 0.30 0.60 0.80 0.90 1.20 1.40 2.10 2.30 2.50 2.90 3.00	0.30 B2 0.60 J3 0.80 B4 0.90 ES5 1.20 J6 1.40 B7  2.10 J8 2.30 B9 2.50 ES10  2.90 J11 3.00 B12						MADE GROUND (Grey gravel. Gravel is fine to coarse subangular and includes slag, Slag contant is 100%. Slag is vesicular slag).  MADE GROUND (Grey brown black sandy gravel with cobbles. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular slag, red brick, ash and concrete. Slag content is 0-25%. Slag is vesicular slag. Cobbles are angular and include slag, concrete and metal. Slag content is 0-25%. Slag is vesicular slag).  MADE GROUND (Red orange brown sandy gravel. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular of clinker, concrete, red brick and slag. Slag content is 0-25%. Slag is vesicular slag).  Soft and friable grey mottled black silty CLAY. Slight organic odour noted.  Firm brown grey silty slightly sandy CLAY with root fibres. Sand is fine to medium.  Firm and friable grey brown laminated CLAY with silty lenses.  Complete at 3.50m BGL.				cular slag).  th cobbles. Sand ne to coarse ontent is 0-25%. de slag, resicular slag). Sand is fine to rse subangular is 0-25%. Slag organic odour ores. Sand is
G ao Sketch Di	iagram:	3.50 Face A  Orientation 090°  Face C	MATIO ketch T	N	ditional	Satura STAB Pit side	ILITY es and base sta	20m BGL (Slight int	avation.	nature.	
All dim	nensions in Scale 1:50			For exp	lanation	of symbosee Key S	ols and Sheets	Checked by:	Logged D. Portsr		Contract No. 4287

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#### **TRIAL PIT RECORD**

PRELIM1

Project:			E	ston Ro	ad Instru	ısive Wo	rks			Exploratory Hole	∍ No.
Client:	Tees Val	ley Combined	Autho	rity		Location		e Commercial Pa	ırk	ATK_TP_0	07
Method (Equip		achine Excavat	ted (J0	CB 3CX	)		Ground Le	E: N: evel (m):	Start Date: 16/06/2020	Sheet: 1 of 1	
				<u> </u>				OTDATA			
SA	MPLES & T	ESIS						STRATA			
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)			Description		
0.20 0.40 0.50 0.60 0.70 0.90 1.30 1.50 2.30 2.50 2.80 3.30 3.50					Solution   Solution				mainly ash. Gravel, concrete, brick, as 6. Slag is grey vesic concrete. Slag cont of the state o	cobble scravel is cohent is cobble scravel is ck, ash, vesicular. If content is redium ash. Ker, coke cobbles are from SE No. 3" in pit and nd of pit.	
Sketch Dia	agram: aphs:	No	ketch Ta	aken See add shee	ditional tts.	STABI Pit side	LITY es and base sta			by: Contract	No.
	ensions in n Scale 1:50	netres				of symbo ee Key S		Unecked by:	Logged D. Portsr		

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Logged by: D. Portsmouth

Checked by:

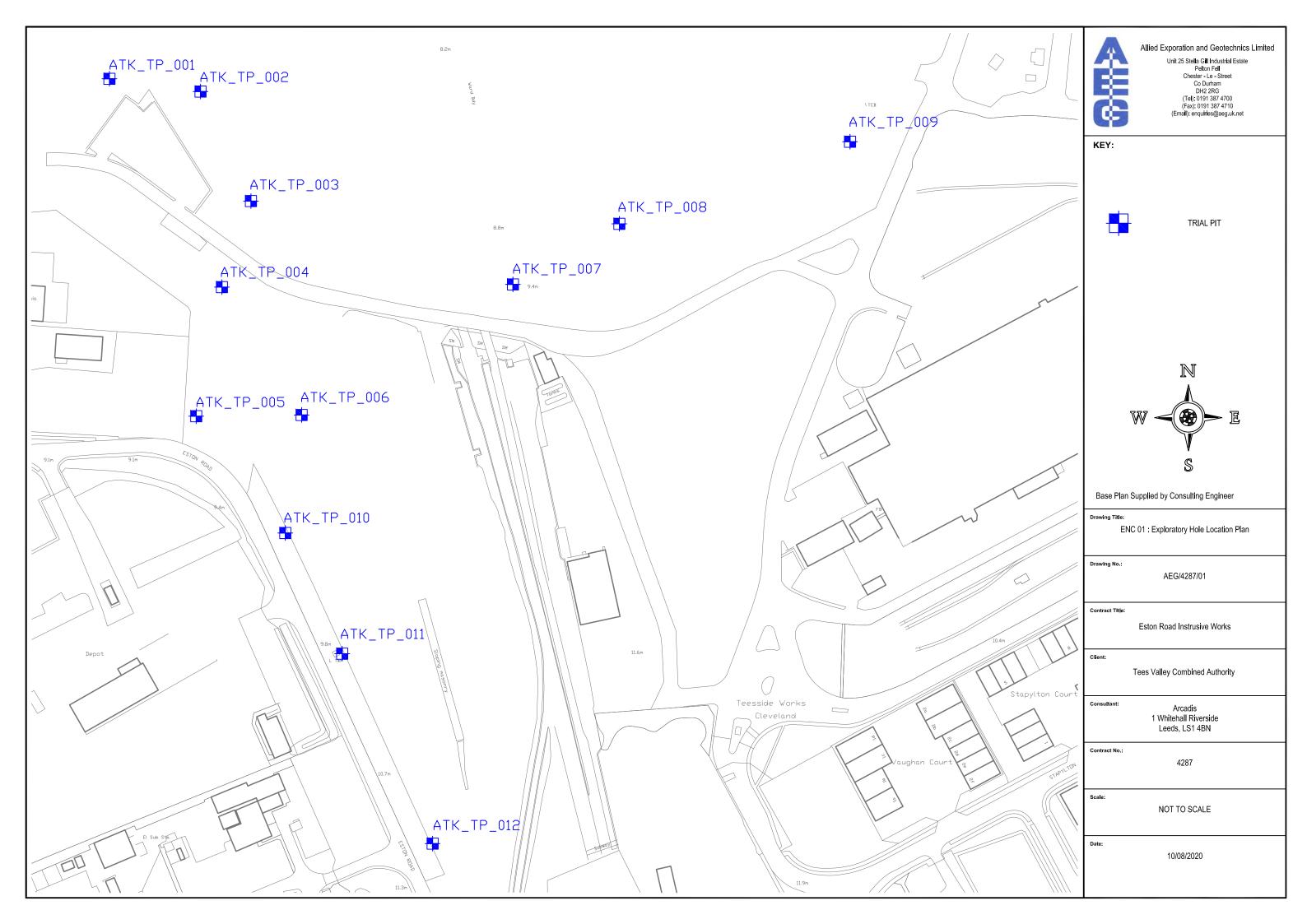
Contract No. 4287

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					TR	IAL P	T RECORD		PRELIM1
Project:	Eston Road Instrusive Works								Exploratory Hole No.
Client:	Tees \	Valley Combined	Autho	ority		Location	: Clay Lane Commerci	al Park	ATK_TP_008
Method (Equip		Machine Excavat	ed (J	CB 3CX	)		E: N: Ground Level (m):	Start Date: 16/06/2020	Sheet: 1 of 1
SA	AMPLES &			<del></del>			STRA	 TA	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)		Description	
0.40 0.80 1.00 1.20 1.30	J1 B2 ES2A J3 B4					(0.90) - 0.90 - (0.40) - 1.30 	MADE GROUND (Black brown sandy gravel with medium cobble content. Sand is fine to coarse and includes mainly ash. Gravel is fine to coarse subangular and includes slag, concrete, brick, ash, dolomite and clinker. Slag content is 25-50%. Slag is grey vesicu Cobbles are angular and include slag, concrete and red brick. Slag content is 0-25%. Slag is grey vesicular).  MADE GROUND (Yellow, red, brown sandy gravel with high cobb content and medium boulder content. Sand is fine to coarse and		s mainly ash. Gravel is g, concrete, brick, ash, %. Slag is grey vesicular. crete and red brick. Slag y gravel with high cobble is fine to coarse and e subangular and includes e. Slag content is 0-25%. and include slag, 0-25%. Slag is grey
<u> </u>		PLAN 3.00 Face A Orientation			<b>†</b>		INDWATER ted strata at 0.90m BGL (He	avy inflow).	
Face D				Tace D		STAB		ıt evezyation	
		Face C				Fit Side	es and base stable throughor	ai eacavaliuit.	
	ADDI	TIONAL INFORM	IATIO	N		GENE	RAL REMARKS		
Sketch Di	iagram:	No Sk	ketch T	aken					
Photogr	aphs:	No		See add					

For explanation of symbols and abbreviations see Key Sheets

All dimensions in metres Scale 1:50



#### 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

# 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 11<sup>th</sup> May 2020, with a further two samples arriving on 16<sup>th</sup> 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. <u>SAMPLE PREPARATION & PROGRAMME OF ANALYSIS</u>

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 10<sup>th</sup> 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 <u>Petrology</u>

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<sub>3</sub>O<sub>4</sub> 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)<sub>2</sub> and Mg(OH)<sub>2</sub>)) contents. The corrected values report only

the oxide content (CaO and MgO) after correction using the hydroxide values

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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.

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#### 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.

I am D. Thomas

Ian D Thomas BSc(Hons)

31 July 2020

TABLE 1 **SULPHUR SPECIES ANALYSES** 

TRS Ref	Site Ref	Water Sol.	Acid Sol.	Total S
		SO₃ (g/l)	SO <sub>3</sub> (%)	(%)
BG0E01	TP109	0.19	0.87	1.07
BG0E02	TP116	0.17	0.43	0.86
BG0E03	TP117	0.35	0.3	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	5.2	1.1	0.8
BG0F01	TP131	4.9	4.3	3.7	3.3
BG0F02	TP131	5.6	4.6	1.0	0.3

#### **RESULTS FROM THERMAL** TABLE 3 **ANALYSIS**

TRS Ref	Site Ref	Mass % by Thermal Analysis								
		L.O.I.	<b>Ettringite</b>	Gypsum	Calcite	Ca(OH) <sub>2</sub>	Mg(OH) <sub>2</sub>	Others		
BG0E01	TP109	6.29	trace	3.7	2.4	0.0	0.0	-		
BG0E02	TP116	5.35	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	2.6	2.5	0.5	-		
BG0F01	TP131	6.86	0.0	trace	5.6	0.8	0.6	quartz		
BG0F02	TP131	3.67	0.0	0.0	3.4	1.3	1.0	-		

#### TRS ACCELERATED EXPANSION TABLE 4 **TEST**

TRS Ref	Site Ref	7 day (%)	14 day (%)	21 day (%)	28 day (%)
BG0E01	TP109	0.15	0.22	-	-
BG0E02	TP116	0.20	0.25	-	-
BG0E03	TP117	0.36	0.45	0.48	0.50
BG0E04	TP121	0.91	1.59	2.11	2.56
BG0F01	TP131	1.87	2.76	3.05	3.11
BG0F02	TP131	1.23	1.99	2.90	2.93

#### <u>APPENDIX A</u>

#### 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 ( $\beta$ -Ca<sub>2</sub>SiO<sub>4</sub>) and bredigite (Ca<sub>2</sub>SiO<sub>4</sub> with some Mg in solid solution). Also, some spinel (MgAl<sub>2</sub>O<sub>4</sub>) 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<sub>3</sub>) its present but no well-crystallised gypsum (CaSO<sub>4</sub>.2H<sub>2</sub>O) was seen.

#### **Basic steel slag**

The unaltered basic steel slag consists mainly of dicalcium silicate, tricalcium silicate, RO and  $R_3O_4$  phases (FeO and Fe $_3O_4$  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 macroinclusions. 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 BG0E 01-04

	1	2	3	4
BLAST FURNACE SLAG				
Amount	L	L	1	S
Phases present:-				
Melilite	L	L	I	I
Larnite & bredigite	VS	VS	VS	-
Matrix & other silicates	S	s	S	-
Ca & Fe sulphides	VS	VS	VS	-
Metallic iron	VS	VS	S	-
Spinel	S	s	S	-
Glassy slag	-	VS	S	-
Alteration products	m	m	I	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	I	I	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, I = large, m = medium, s = small and vs = very small amounts

#### **GENERAL EXPLANATION**

L = very large, I = large, m = medium, s = small and vs = very small amounts.

**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<sub>2</sub>O<sub>4</sub>). 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 ( $CaF_2$ ) and apatite ( $CaF_2$ ) and apatite ( $CaF_2$ ) 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)<sub>2</sub> 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 'cindery slag' consists of various silicates and silicate glass with Fe oxides, hercynite (FeAl<sub>2</sub>O<sub>4</sub>) and, sometimes, corundum (Al<sub>2</sub>O<sub>3</sub>). 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 silcrete, a kind of chert. Cementitious material may bond the finer particles together. It is similar to the other alteration products consisting mostly of complex hydrates difficult to identify under the microscope Sometimes some is used Portland cement recognised by the relict textures of the clinker and the embedded quartz sand.

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#### 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 $_2$ O $_4$ ) 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 $_2$ O) 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<sub>3</sub>).

#### **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	I	I	
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	ı	m	
Tricalcium silicate	-	S	
Unetched 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	
OTUED CONSTITUENTS			
OTHER CONSTITUENTS			
Alumino-silicate brick	S	VS	
Quartz, etc.	S	S	
Cindery 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, I = large, m = medium, s = small and vs = very small amounts

#### **GENERAL EXPLANATION**

L = very large, I = 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 ((CaMg)SiO<sub>3</sub>). Spinel (CaMg) 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 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<sub>3</sub>O<sub>4</sub> with some Mg, Mn, Ca, etc. in solid solution and complex Ca alumino-ferrites. There may also be some Fe<sub>2</sub>O<sub>3</sub> and spinel ((Mg,Fe)Al<sub>2</sub>O<sub>4</sub>). 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<sub>2</sub>) 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)<sub>2</sub>) 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)<sub>2</sub> is likely.

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### 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 <u>very rare</u> form of instability frequently associated with operating problems in the blast furnace. TRS know of only <u>one instance</u> 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 on 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.

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Grangetown Prairie Area; Former Steelworks, Redcar. Environmental Site Assessment Addendum Report – 10035117

# **APPENDIX D**

# **Tidal Monitoring and Aquifer Permeability Testing**

Grangetown Prairie Area; Former Steelworks, Redcar. Environmental Site Assessment Addendum Report – 10035117

#### **Appendix D**

#### **Permeability Tests**

The aim of the slug test is to determine an estimate for the hydraulic conductivity within the screened interval of a monitoring well.

#### Methodology

Slug testing at the site was conducted by AEG and the methodology is reported in AEG 2020a.

The slug tests were undertaken on monitoring wells BH101D (screening Glacial till), BH103 (screening Glaciolacustrine Deposits), BH108D and BH110 (both screening Mercia Mudstone) on 3<sup>rd</sup> July 2020. An additional test had been undertaken on BH103 on June 24<sup>th</sup> however AEG noted that the permeability was high based on the cohesive geology screened and these tests were disregarded by AEG.

#### Data Interpretation - Bouwer-Rice

To determine the hydraulic conductivity of an unconfined aquifer from a permeability test, Bouwer and Rice (1976) presented a method that is based on Thiem's equation. Using this methodology the data collected from the field is plotted on a graph showing natural logarithm of head versus time. The best-fit line of this graph defines the head change at time zero (h0) and the head at an arbitrary time t (ht). From this data and the specific monitoring well parameters hydraulic conductivity is calculated.

#### **Permeability Test Results**

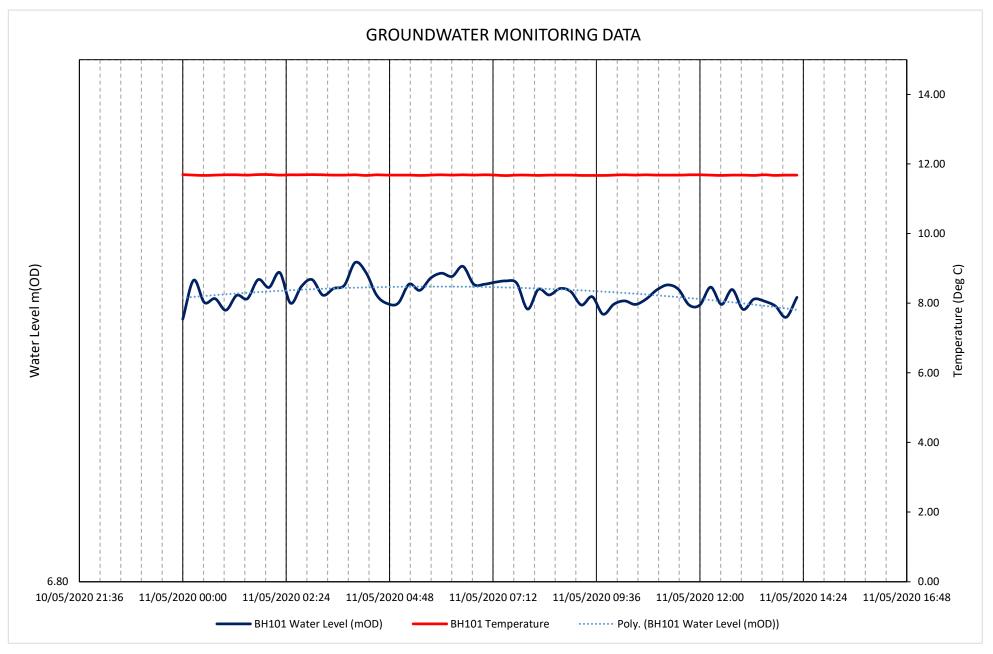
Slug tests were performed on monitoring wells BH101D, BH103, BH108D and BH110, to provide an estimate of the hydraulic conductivity of the aquifer unit beneath the Site. The technique used by AEG was to extract or insert a solid mass of known volume to each well and monitor water level recovery electronically using a pressure transducer.

From this data the depths to water were calculated and combined with data on the physical properties of the well, calculations for the derivation of the value for hydraulic conductivities were calculated using Bouwer and Rice's method for a partially penetrating well in an unconfined aquifer for BH101D, BH108D and BH110. The recharge in BH103 during the test was noted to be rapid and not considered to be representative of the cohesive geology the well screens. Given the discrepancy between the geology and test, the data for BH103 was not used in permeability calculations. It is possible that the test was reflective of the permeability of the filter pack and not the surrounding geology.

The hydraulic conductivity estimated from the tests conducted in BH101D screening the Glacial Till indicated a range in conductivity from 0.0007 to 0.025 m/day. These values are broadly in line with literature values for a clay such as the US EPA 1988 who suggest 0.014m/day, Morris and Johnson 1967, who suggest 0.0002m/day and ConSim 2000, where a range in hydraulic conductivity of 8.6 x 10<sup>-7</sup> to 0.00041 m/day is presented for a clay. As such the permeabilities are considered to be representative of the screened geology.

The hydraulic conductivity estimated from the tests conducted in BH108D and BH110 which screen the Mercia Mudstone were higher, between 0.3 and 0.61 m/day. In comparison to literature values for a mudstone, these permeabilities are more rapid than expected. For example, ConSim 2000 suggests between 8.64 x 10<sup>-9</sup> to 0.00017 m/day for a shale, with similar values reported by Tindal 1998. The literature values presented are at least 3 orders of magnitude below the calculated permeabilities. The higher than expected permeabilities may be the result of drilling induced fracturing of the mudstone in the close proximity of the well, where mudstone is described in some sections of the well screen as extremely weak and moderately weak.

#### **GROUNDWATER MONITORING DATA**



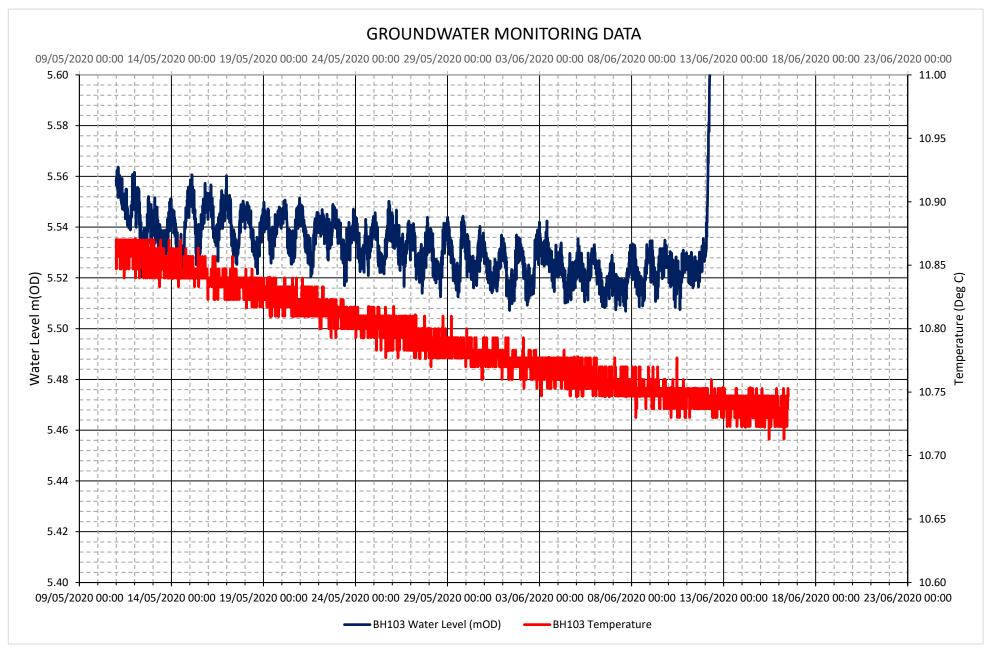
Title: Prairie Site Ground Investigation

Contract No: 4251

Client: Tees Valley Combined Authority

Printed: 10/08/2020

#### **GROUNDWATER MONITORING DATA**



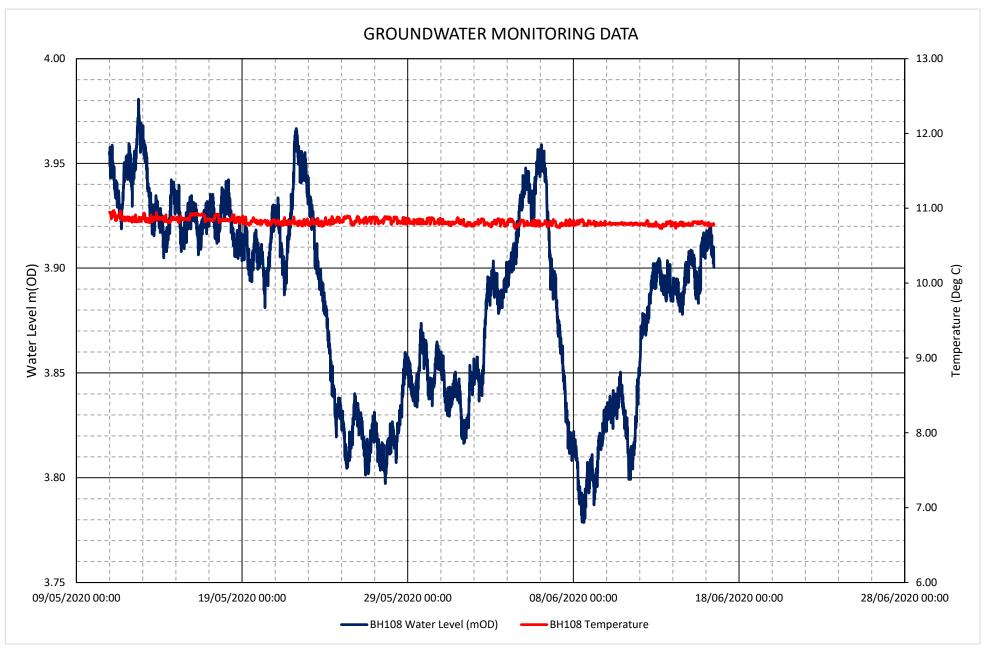
Title: Prairie Site Ground Investigation

Contract No: 4251

Client: Tees Valley Combined Authority

Printed: 10/08/2020

#### **GROUNDWATER MONITORING DATA**



Title: Prairie Site Ground Investigation

Contract No: 4251

Client: Tees Valley Combined Authority

Printed: 10/08/2020

Rising Head Test	Calculations															
ND act to 2 decima	al places as a default															
NB - Set to 2 decima	ai piaces as a deiauit															
Calculations using	Bouwer & Rice as	suming a PARTIAI	LY penetrating we	    .												
Well ID	BH110 - T1	BH110 - T2	BH110 - T3	BH110 - T4	BH110 - T5	BH110 - T6	BH108D- T1	BH108D- T2	BH108D- T3	BH108D- T4	BH108D- T5	BH108D- T6	BH101D - T1	BH101D - T2	BH101D - T3	BH101D - T4
Value from	BH110 - 11	BH110 - 12	BH110 - 13	BH110 - 14	BH110 - 15	BH110 - 16	BH108D- 11	BH108D- 12	BH108D- 13	BH108D- 14	BH108D- 15	BH108D- 16	BH101D - 11	BH101D - 12	BH101D - 13	BH101D - 14
equation when t=0	-1.5081	-0.9685	-1.394	-1.0624	-1.4858	-1.2167	-0.5744	-0.4491	-0.3802	-0.4598	-0.4182	-0.5509	-0.6783	-6.1706	-0.9921	-1.5993
h <sub>0</sub>	0.221330106	0.379652089	0.248080993	0.345625313	0.226321211	0.296206036	0.563042593	0.638202275	0.683724651	0.631409915	0.658230569	0.576430789	0.507478974	0.002089982	0.370797199	0.202037895
Value from																
equation at																
selected t	-1.5223	-0.9906	-1.4112	-1.0893	-1.5028	-1.2418	-0.6023	-0.4775	-0.4091	-0.4886	-0.4491	-0.5777	-0.6785	-6.1713	-0.9924	-1.5998
n <sub>t</sub>	0.218209428	0.371353812	0.243850487	0.336451928	0.22250627	0.288863795	0.54755082	0.620332286	0.664247804	0.613484672	0.638202275	0.561187615	0.507377488	0.002088519	0.370685976	0.201936901
Selected t	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1 0 0005
1/t Ln h <sub>0/</sub> h <sub>t</sub>	0.0142	0.0221	0.0172	0.0269	0.017	0.0251	0.0279	0.0284	0.0289	0.0288	0.0309	0.0268	0.0002	0.0007	0.0003	0.0005
d r <sub>w</sub>	4 0.1	4 0.1	4 0.1	0.1	4 0.1	0.1	4 0.1	4 0.1	4 0.1	0.1	4 0.1	4 0.1	0.1	0.1	0.1	0.1
d/r <sub>w</sub>	40	40	40	40	40	40	40	40	40	40	40	40	20	20	20	20
A	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.88	2.24	2.24	2.24	2.24
В	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.37	0.37	0.37	0.37
D	18.634	18.656	18.568	18.656	18.634	18.656	10.153	10.131	10.153	10.153	10.153	10.153	16.203	15.829	16.401	15.829
b	16.94	16.96	16.88	16.96	16.94	16.96	9.23	9.21	9.23	9.23	9.23	9.23	14.73	14.39	14.91	14.39
1.1/(ln(b/r <sub>w</sub> ))	0.214330413	0.214281148	0.214478693	0.214281148	0.214330413	0.214281148	0.243091551	0.243208139	0.243091551	0.243091551	0.243091551	0.243091551	0.220331761	0.221367225	0.21979703	0.221367225
$A+B(ln((D-b)/r_w))$	4.237068847	4.237635853	4.235363804	4.237635853	4.237068847	4.237635853	3.945277535	3.944235154	3.945277535	3.945277535	3.945277535	3.945277535	3.222843001	3.214281047	3.227296129	3.214281047
Ln R <sub>e</sub> /r <sub>w</sub>	3.122490943	3.122833102	3.12146116	3.122833102	3.122490943	3.122833102	2.926342585	2.92556755	2.926342585	2.926342585	2.926342585	2.926342585	2.621411243	2.617244179	2.623557516	2.617244179
r <sub>c</sub>	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025	0.025
r <sub>c</sub> -	0.000625 3.5E-06	0.000625 5.4E-06	0.000625 4.2E-06	0.000625 6.6E-06	0.000625 4.1E-06	0.000625 6.1E-06	0.000625 6.4E-06	0.000625 6.5E-06	0.000625 6.6E-06	0.000625 6.6E-06	0.000625	0.000625 6.1E-06	0.000625 8.2E-08	0.000625 2.9E-07	0.000625 1.2E-07	0.000625 2.0E-07
K (m/sec) K (m/day)	0.30	5.4E-06 0.47	4.2E-06 0.36	0.5F-U6	4.1E-06 0.36	0.1E-06 0.53	0.4E-06 0.55	0.5E-06 0.56	0.57	0.6E-06 0.57	7.1E-06 0.61	0.1E-06 0.53	8.2E-08 0.007	2.9E-07 0.025	1.2E-07 0.011	2.0E-07 0.018
K (III/day)	0.30	0.47	0.30	0.57	0.30	0.55	0.55	0.56	0.57	0.57	0.01	0.55	0.007	0.025	0.011	0.016
h <sub>o</sub>	Head in the well at tir	me t= t₀ (m)														
Ü	Length of the well screen or open section of the well (m)															
	Time (seconds)		()													
r <sub>w</sub>	Horizontal distance fr	rom well centre to un	ndisturbed aquifer (m	etres)- ie radius of th	ne HOLE (M)											
"	Dimensionless paran															
	Dimensionless paran	•														
	Saturated aquifer thic	,	, J													
b	Water column in well	before test commer	nces (metres)													
	Radial distance over			ated in the aquifer												
	Radius of the well (m															
K	Hydraulic Conductivit	ty														



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