ENVIRONMENTAL CONDITIONS AND RISK-BASED SITE RESTORATION PLAN

Greyhound Lines, Inc. – #703777
81 Berens Road
Thompson, Manitoba

Prepared for:

Greyhound Canada Transportation ULC
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July 2022

Strata ENVIRONMENTAL

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SECTION 1 INTRODUCTION

This Plan documents the environmental conditions and proposed risk-based site restoration plan at Greyhound Lines, Inc., 81 Berens Road, Thompson, Manitoba R8N 1X3 (Site). Greyhound Canada Transportation ULC contracted Strata Environmental Services, Inc. (Strata) to complete a delineation investigation in accordance with Strata Proposal 2022-020. Based on the results of the delineation investigation, Strata prepared this Plan, which includes additional investigation work required to close data gaps and assess vapour inhalation exposure risks and proposed remedial and risk management measures that will be implemented at the Site to eliminate and/or mitigate/prevent adverse exposure risks. Figure 1 presents the Site Plan.

SECTION 2 BACKGROUND

2.1 Site Setting

Topography and Drainage

Local topography generally grades southeast toward streams and wetlands surrounding the Vale nickel mining, smelting, and refining plant approximately 0.7 km (0.43 mile) east of the Site. The water surface elevation of the wetlands is approximately 196 metres above sea level (masl). The site grade is relatively flat with an approximate elevation of 210 masl. Drainage from the gravel- and asphalt-paved area sheet flows generally away from the building toward Berens Road along the north and west boundaries and a drainage ditch within the highway right-of-way along the east site boundary.

Geology and Hydrogeology

According to the 2004 Manitoba Geological Society Surficial Geology map, the unconsolidated geology in the region that includes Thompson and the Site is composed of clay and/or silt with some minor sand deposits. Based on topography, inferred groundwater flow at the Site is south/southeast.

2.2 Site History

The Site is in a light industrial area within the limits of the City of Thompson, Manitoba. The approximately 0.8-hectare (2-acre) property is developed with a 1,582 m^2 (17,029 ft^2) bus maintenance garage, including a high-bay maintenance area, drive-through wash bay, inground hydraulic hoist, drum storage area, material storage areas, offices, courier depot, passenger waiting area, and vacant restaurant space. The garage is equipped with floor drains linked by underground piping to the municipal sewer system. The remainder of the Site is generally sand- and gravel-covered.

Two former fuel depots operated at the Property:

a) A diesel fuel depot composed of an aboveground storage tank (AST) linked by aboveground product piping to a fuel dispenser on the west side of the Site. The AST was removed from the Site in 2018, and

b) A former Hiway Esso fuel depot composed of five underground storage tanks (USTs) linked by underground product piping to fuel dispensers in the south-central section of the Site. The station is listed on the Manitoba Designated Contaminated Sites List in connection with releases discovered during the 1992 UST removals.

2.3 Previous Investigations

Strata performed the following investigations:

- Surface Soil Quality Assessment, Former Aboveground Diesel Depot, Thompson, Manitoba, December 3, 2018 (Appendix A).
- Phase II Environmental Site Assessment, Greyhound Lines, Inc. #700031, Bus Terminal and Maintenance Facility, 81 Berens Road, Thompson, Manitoba R8N 1X3, May 2019 (Appendix B).

- Soil Gas Quality Assessment (SGQA), Former Greyhound Facility, Thompson, Manitoba, September 16, 2020 (Appendix C)

Strata identified the following data from the previous investigations:

- The soil stratigraphy beneath the Site is composed of fill overlying clay encountered at 1 to 11 ft below grade (bg).
- Shallow groundwater resides within the clay unit at depths ranging from 13 to 18 ft bg.
- Free phase product or nonaqueous phase liquid was not observed atop groundwater in the monitoring wells,or soil samples recovered from the boreholes, or in purge water extracted from the monitoring wells during groundwater sampling.
- Elevated combustible vapour concentrations of > 100% and 60% LEL (lower explosion limit) were measured in soil samples recovered from 12.5 to 15 ft bg at BH10 and 2.5 to 5 ft bg at BH11.
- The primary contaminants of concern at the Site include benzene in groundwater and benzene, xylenes, and petroleum hydrocarbon (PHC) fractions 1–3 (F1–F3) in soil.
- A black fill layer exhibiting metals concentrations above generic CCME guidelines is present beneath the building floor slab. The metals detected above guidelines include arsenic, chromium, cobalt, copper, nickel, selenium, and thallium reported at maximum concentrations of 142, 370, 562, 163, 1660, 3.12 and 1.01 mg/kg, respectively. The black fill is believed to have originated from area mining operations.
- The observations and results of the SGQA performed August 11–13, 2020, indicate residual PHC impacts in the subsurface beneath the building do not yield soil gas concentrations that pose an adverse vapor inhalation risk to building occupants via vapor intrusion. Furthermore, all detected petroleum constituents (benzene, toluene, ethyl benzene, and xylenes [BTEX] and PHC F1 and F2) in indoor air were below corresponding health-based criteria, indicating adverse vapor inhalation conditions did not exist in the building at the time of sampling.

SECTION 3 RISK-BASED CRITERIA

3.1 Soil and Groundwater Criteria

As established in past assessments, the criteria for the evaluation of soil and groundwater quality at the Site include a combination of Canadian Council of Ministers of the Environment (CCME) Guidelines; Ontario Ministry of Environment, Conservation and Parks (MECP) Site Condition Standards; and Alberta Environment Tier 1 Guidelines for commercial sites with fine-grained soil and non-potable groundwater use. The criteria selected include consideration of contaminant exposure pathways deemed inactive and excluded, an incremental carcinogenic risk of 10^{-5}, stratified depth horizons, and site-specific conditions that dictate and/or affect exposure scenarios (slab-on-grade commercial building and asphalt-paved parking lot). Excluded exposure pathways and their exclusion rationales are defined, as follows:

- Drinking Water (DW) pathway – excluded because a municipal water supply system that acquires raw water from a surface water body (Burntwood River) supplies the Site and Thompson residents with potable water. Further, groundwater yield (< 0.5 L/min) in the subsurface formation targeted in this assessment is too low to support domestic groundwater use (all monitoring wells were generally pumped dry at a pumping rate of 0.5 L/min).
- Freshwater Aquatic Life (FAL) pathway – excluded because shallow groundwater resides within a fine-grained matrix of clay, and there are no surface water bodies supporting aquatic life within 300 m of the Site.
- Irrigation (IR) and Livestock Water (LW) pathways – excluded because the Site resides within an urban area where groundwater is not used for agricultural purposes.
- The BTEX and PHC impacts at the Site reside below a concrete floor slab and paved parking lot (i.e., beneath a surface cap). As long as the surface cap is maintained in perpetuity, the human health and ecological contact pathways are cut-off/prevented.

Considering the pathway exclusions, presence of a surface cap, an incremental carcinogenic risk of 10^{-5} and a stratified depth site restoration approach, the criteria selected and derived for application to the site for the contaminants of concern (BTEX and PHCs) in soil and groundwater are highlighted in Table A and Table B.

Table A. Site-Specific Stratified Depth Soil Criteria

Analyte	MECP Site-Specific Standard (mg/kg)		CCME Site-Specific Standard (mg/kg)		Selected Risk-Based Standard (mg/kg)	
	Surface Soil (<1.8 m)	Subsurface Soil (>1.8 m)	Surface Soil (<3 m)	Subsurface Soil (>3 m)	Surface Soil (<1.8 m)	Subsurface Soil (>1.8 m)
Benzene	0.4 [1]	4.4 [1]	2.8 [2]	2.9 [2]	2.8	2.8
Toluene	620	1000	13000	13000	620	1000
Ethylbenzene	210	2400	6500	6700	210	2400
Xylenes	140	1600	1600	1600	140	1600
PHC Fraction 1	800	2600	800 [3]	800 [3]	800	2600
PHC Fraction 2	950	3900	1000 [3]	1000 [3]	950	3900

Analyte	MECP Site-Specific Standard (mg/kg)		CCME Site-Specific Standard (mg/kg)		Selected Risk-Based Standard (mg/kg)	
	Surface Soil (<1.8 m)	Subsurface Soil (>1.8 m)	Surface Soil (<3 m)	Subsurface Soil (>3 m)	Surface Soil (<1.8 m)	Subsurface Soil (>1.8 m)
PHC Fraction 3	7200	7200	5000 [3]	5000 [3]	7200	7200

1 – based on 10^{-6} incremental carcinogenic risk
2 – based on 10^{-5} incremental carcinogenic risk
3 – CCME Management Limit

Table B. Site-Specific Groundwater Criteria

Parameter	MECP Site-Specific Standard (mg/L)	Alberta Site-Specific Standard (mg/L)	Selected Risk-Based Standard (mg/L)
Benzene	0.43 [1]	19 [2]	19
Toluene	260	NGR	260
Ethylbenzene	85	NGR	85
Xylenes	53	NGR	53
PHC Fraction 1 (1)	1.9	NGR	1.9
PHC Fraction 2 (1)	360 [3]	NGR	360

1 – based on 10^{-6} incremental carcinogenic risk
2 – based on 10^{-5} incremental carcinogenic risk
3 - must demonstrate no free phase liquid
NGR – no guideline required, calculated value > solubility or > 1,000,000 mg/L

The soil criteria selected for BTEX and PHCs for surface soil and subsurface soil were derived using the CCME Fact Sheets, CCME PHC Technical Rationale, and the November 2016 MECP Modified Generic Risk Assessment Approved Spreadsheet Model (MGRA Model) considering the pathway exclusions, commercial slab-on-grade building, and soil impacts reside below an asphalt-paved parking lot and concrete building slab (i.e., surface cap). For each parameter, the most stringent of the risk-based criteria, considering an incremental carcinogenic risk of 10^{-5} of the MECP and CCME soil criteria, was selected for application to the Site. Because the MGRA Model is available online, the output of the MGRA Model that resulted in the standards set out in Table 1 is not reproduced in this report. The 1.8 m depth threshold has been used to account for manmade layers as the 1.5 m depth threshold used in the MECP stratified depth approach is measured from subgrade. Considering the pathway exclusions negate the application of CCME water guidelines, the groundwater quality criteria selected were the most stringent of risk-based MECP non-potable-based standards and Alberta Tier 2 groundwater guidelines (PHC F1 and F2) selected/adjusted to account for an incremental carcinogenic risk of 10^{-5}, the pathway exclusions, and the presence of a surface cap.

The critical exposure pathway for benzene is the vapor intrusion into buildings and human inhalation of indoor air pathway with the next most sensitive component standard under CCME set at 110 mg/kg for soil ingestion. Of note is the fact that none of the detected benzene concentrations in soil exceed the ingestion pathway component standard. Figure 2a presents the surface and Figure 2b the subsurface soil quality with respect to benzene. As a result, a soil gas quality assessment is suggested within regions of the Site with residual benzene contamination in soil to ascertain if residual benzene in soil poses a concern, i.e., does it yield benzene or other petroleum constituents in soil gas at concentrations exceeding risk-based soil gas objectives.

The CCME PHC F1, F2, F3, and F4 surface and subsurface soil criteria are set at the management limits set out in the Technical Supplement of the Canada Wide Standard for Petroleum Hydrocarbons in Soil. The management limits are not risk-based but are intended to protect against explosive conditions and the possible presence of free product, among other physical limitations. Because no free phase liquid has been observed in soil or groundwater, and soil with elevated vapor concentrations that could pose a potential explosion hazard will be removed as part of the site restoration plan, the risk-based standards for non-carcinogenic petroleum constituents derived using the MECP MGRA spreadsheet model have been adopted for application to the Site.

3.2 Soil Gas Objectives

As presented in the Soil Gas Quality Assessment, risk-based Soil Gas Objectives (SGOs) have been derived using CCME Guidelines for the slab on grade commercial building at the site. The SGOs are provided in Table C.

Table C. Soil Gas Objectives

Parameter	Soil Gas Objective ($\mu g/m^3$)
Benzene (1)	1.1
Toluene	683.62
Ethylbenzene	180.65
Xylenes	32.43
PHC Aliphatic C>6-8	3332.53
PHC Aliphatic C>8-10	174.95
PHC Aliphatic C>10-12	182.02
PHC Aliphatic C>12-16	182.02
PHC Aromatic C>8-10	29.59
PHC Aromatic C>10-12	36.40
PHC Aromatic C>12-16	36.40

1 – based on 10^{-5} incremental carcinogenic risk

SECTION 4 SITE RESTORATION PLAN

The following site restoration plan is proposed for the Site:

- Perform remedial excavations to remove soil with elevated vapor concentrations (> 100% LEL) and residual PHC contamination.
- Increase groundwater quality coverage by installing additional monitoring wells and acquiring groundwater samples for laboratory analysis of BTEX and PHC F1 and F2.
- Perform Soil Gas Quality Assessment within benzene-impacted areas to ascertain if benzene or other petroleum constituents in soil gas could pose an adverse risk to occupants of future buildings.

The following risk management measures are part of the site restoration strategy:

- A health and safety plan for construction workers shall be prepared and put in-place to ensure workers are protected from contaminant exposure risks to known contaminated soil and groundwater before proceeding with excavation work.
- A surface cap composed of paved or concrete-covered surfaces or at least 1 m of non-impacted soil shall be maintained atop the contaminated soil underlying the Site.
- A cap inspection program conducted by suitably qualified personnel shall be conducted annually, repairing breaches in the cap, if required.
- A soil and groundwater management plan outlining how impacted soil and groundwater will be managed shall be developed and in place before completing construction work involving excavation and/or dewatering.

4.1 Remedial Excavations

Two remedial excavations are planned for the Site: the West Remedial Excavation (WRE) and the East Remedial Excavation (ERE). The WRE is in the former area of the aboveground diesel fuel depot, and the ERE is within the former area of the gasoline USTs in the south part of the Site. Figures 3a and 3b illustrate the inferred remedial excavation extents.

The WRE measures approximately 25 ft by 40 ft and extends to a depth of 5 ft below grade and will serve to remove PHC-contaminated soil encountered in the surface soil horizon. The approximate excavation volume of the WRE is 185 cubic yards (141 m^3) in-situ with about 150 cubic yards (115 m^3) in-situ deemed contaminated.

The ERE is composed of a surface excavation component extending to a depth of 6 ft bg (Figure 3a) and a subsurface excavation component extending from 6 ft to about 10 ft bg (Figure 3b). The ERE will remove PHC-impacted soil and soil with elevated vapor concentrations to the extent necessary to eliminate the potential for explosive conditions. The aerial extent and total excavation volumes of the surface and subsurface excavations are estimated at 8,000 ft^2 and 6,650 ft^2 and 1,778 and 985 cubic yards in-situ. The total excavation and contaminated soil volumes anticipated from the ERE are 2,763 cubic yards (2,112 m^3) in-situ and 2,400 cubic yards (1,835 m^3) in-situ.

A Manitoba-licensed environmental contractor retained by Strata will perform the excavations. Strata will collect soil samples according to a three-dimensional sampling grid for contaminant screening with selected samples retained for laboratory analysis for BTEX and PHCs and evaluating the results against risk-based criteria. Strata will oversee all aspects of the remedial excavations, directing the contractor on the excavation extents required to achieve compliance with risk-based criteria (excluding benzene).

Excavated non-impacted soil and contaminated soil from the remedial excavations will be segregated. Contaminated soil will be placed in stockpiles for sampling and vapor concentration measurement to ascertain if it is deemed potentially explosive (i.e., vapours above 15% LEL). Soil stockpiles exceeding the vapor threshold will be deemed contaminated, loaded into trucks, and transported off-site to the Mystery Lake Landfill for treatment/disposal. Soil meeting the vapor threshold will be sampled and tested for BTEX/PHCs in accordance with standard practise. Segregated soil deemed to meet risk-based criteria will be set aside for reuse as excavation backfill; soil that does not meet criteria will be conveyed to the off-site treatment/disposal facility.

The excavations will be backfilled with segregated soil and imported fill placed and compacted in lifts within the excavated areas. The imported fill will be certified to comply with applicable soil quality guidelines and standards, and the segregated soil will be sampled and tested and verified to comply with risk-based criteria.

4.2 Monitoring Well Installations and Groundwater Sampling

Five additional monitoring wells will be installed to increase groundwater coverage at the Site at locations illustrated on Figure 4. The wells will be purged and sampled in accordance with standard practice with groundwater samples acquired from each well for analysis of BTEX and PHCs. Laboratory analytical testing results will be evaluated against applicable risk-based criteria to establish groundwater quality across the Site.

4.3 Soil Gas Quality Assessment

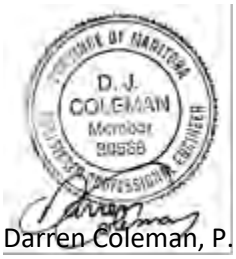
Five soil gas probes composed of 3/4-inch diameter PVC with 1 ft screened intervals placed to a depth of 5 ft bg will be installed within the benzene-impacted area in the south part of the Site (Figure 2b). The probe points will be leak-tested, purged, and sampled on three to four quarterly sampling events in accordance with standard practise, collecting soil gas samples into summa cannisters for subsequent laboratory analytical testing of BTEX and PHC F1 and F2. Site-specific risk-based soil gas objectives will be derived for the petroleum constituents, considering the sample depth and applying CCME guidance and the Johnson and Ettinger Vapor Intrusion Model. Soil gas testing results will be evaluated against the soil gas objectives to establish if adverse vapour inhalation risks of exposure to benzene and other petroleum constituents are apparent. If no risks are identified, the SGQA will conclude no further action is required. If adverse risks are apparent, a recommendation for the installation of vapour management systems beneath future buildings constructed within the impacted area will be incorporated into the site restoration closure report.

SECTION 5 CERTIFICATION

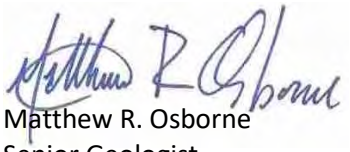
Based upon information collected to date, Strata prepared this Plan for remedial activities and restoration of the Site to risk-based, commercial/industrial standards. All remedial work will be performed according to Plan and direction and guidance from Manitoba Conservation and Water.

STRATA ENVIRONMENTAL SERVICES, INC.

Prepared by:

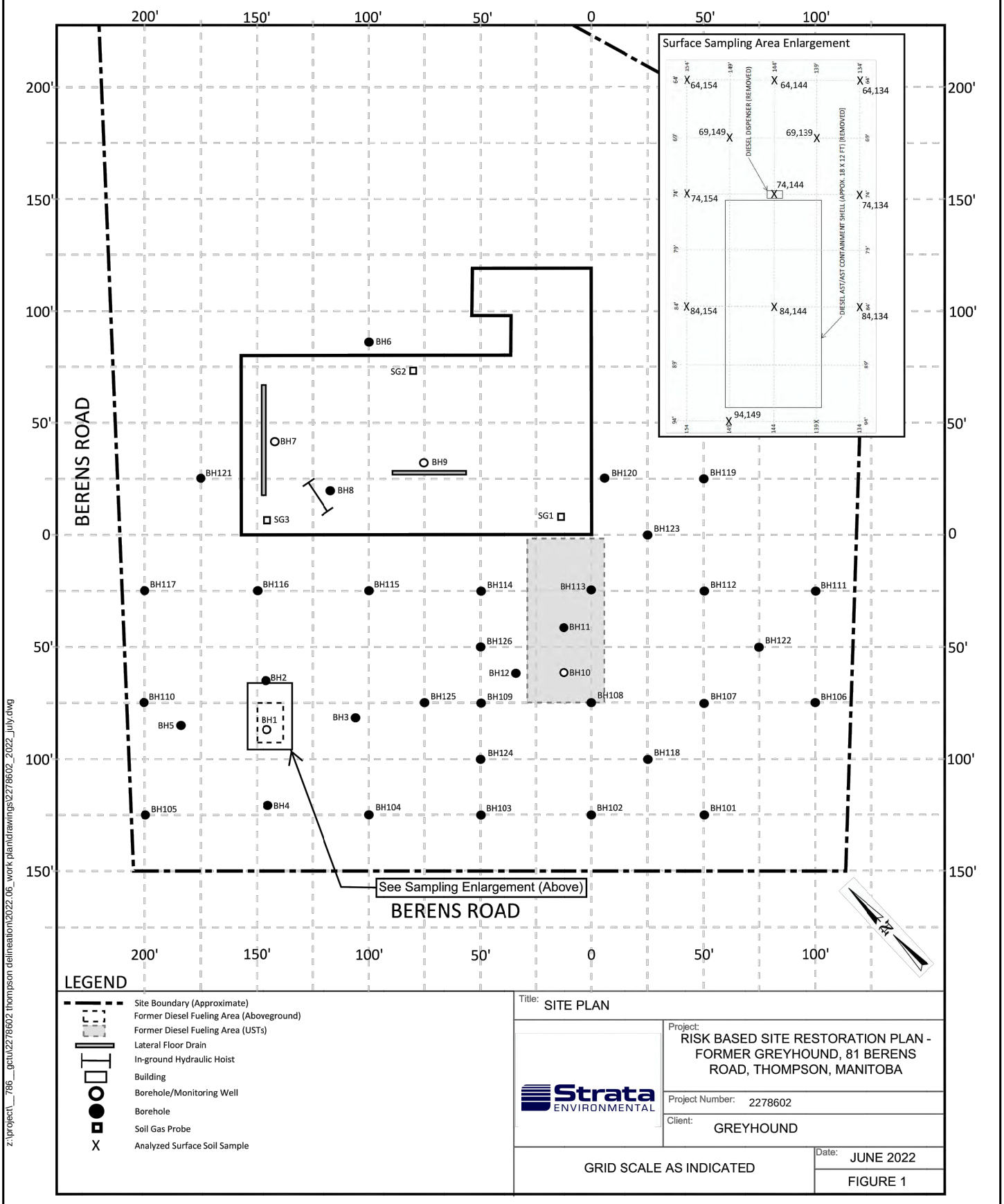


Darren Coleman, P. Eng.
President (COLESTAR)



Matthew R. Osborne
Senior Geologist

FIGURES



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Title: SITE PLAN

Strata ENVIRONMENTAL

Project: RISK BASED SITE RESTORATION PLAN - FORMER GREYHOUND, 81 BERENS ROAD, THOMPSON, MANITOBA

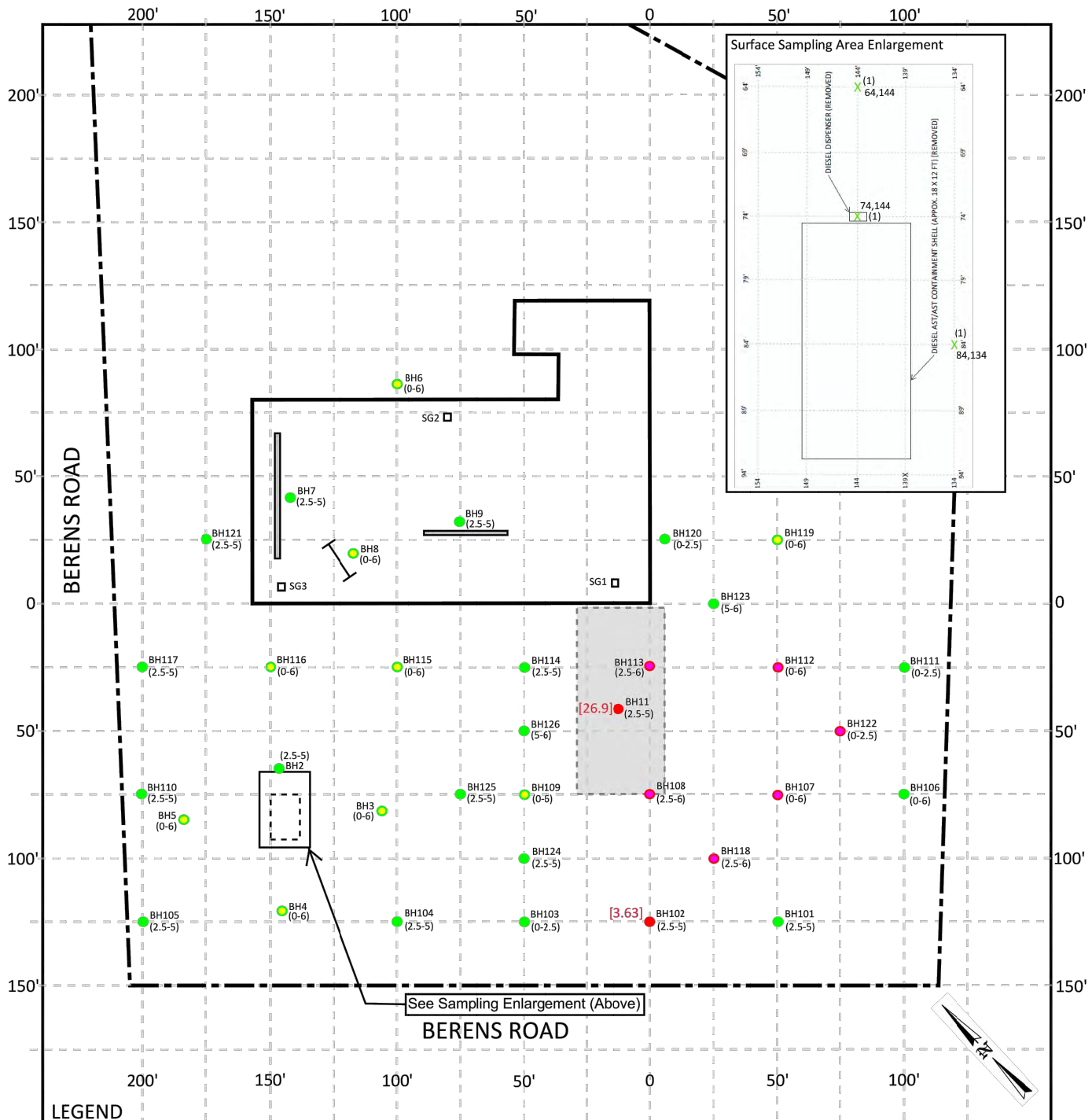
Project Number: 2278602

Client: GREYHOUND

GRID SCALE AS INDICATED

Date: JUNE 2022

FIGURE 1



LEGEND

- Site Boundary (Approximate)
- Former Diesel Fueling Area (Aboveground)
- Former Diesel Fueling Area (USTs)
- Lateral Floor Drain
- In-ground Hydraulic Hoist
- Building
- Benzene concentration exceeds soil criterion (2.8 mg/kg)
- X Benzene concentration meets soil criterion (2.8 mg/kg)
- Elevated vapors (46 to >100% LEL), soil not tested, soil horizon requires removal
- No organic contaminant impacts observed, vapors <80 ppm
- (2.5-5) Sample depth interval in feet below grade
- [26.9] Non-compliant benzene concentration in mg/kg

Title: SURFACE SOIL QUALITY - BENZENE

Strata ENVIRONMENTAL

Project: RISK BASED SITE RESTORATION PLAN - FORMER GREYHOUND, 81 BERENS ROAD, THOMPSON, MANITOBA

Project Number: 2278602

Client: GREYHOUND

GRID SCALE AS INDICATED

Date: JUNE 2022

FIGURE 2a

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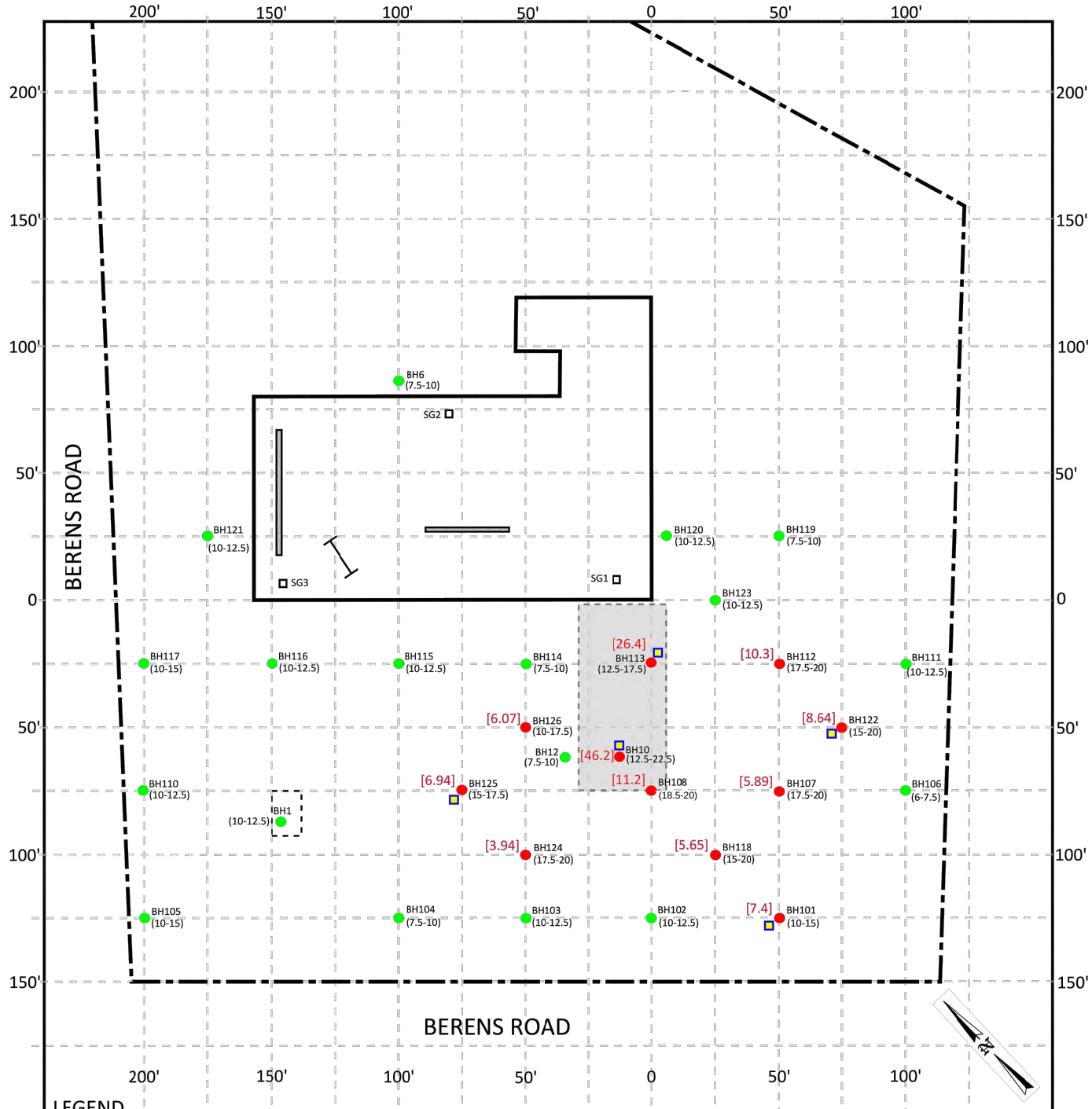

Title: SUBSURFACE SOIL QUALITY - BENZENE

Strata ENVIRONMENTAL

Project: RISK BASED SITE RESTORATION PLAN - FORMER GREYHOUND, 81 BERENS ROAD, THOMPSON, MANITOBA

Project Number: 2278602

Client: GREYHOUND

GRID SCALE AS INDICATED

Date: JUNE 2022

FIGURE 2b

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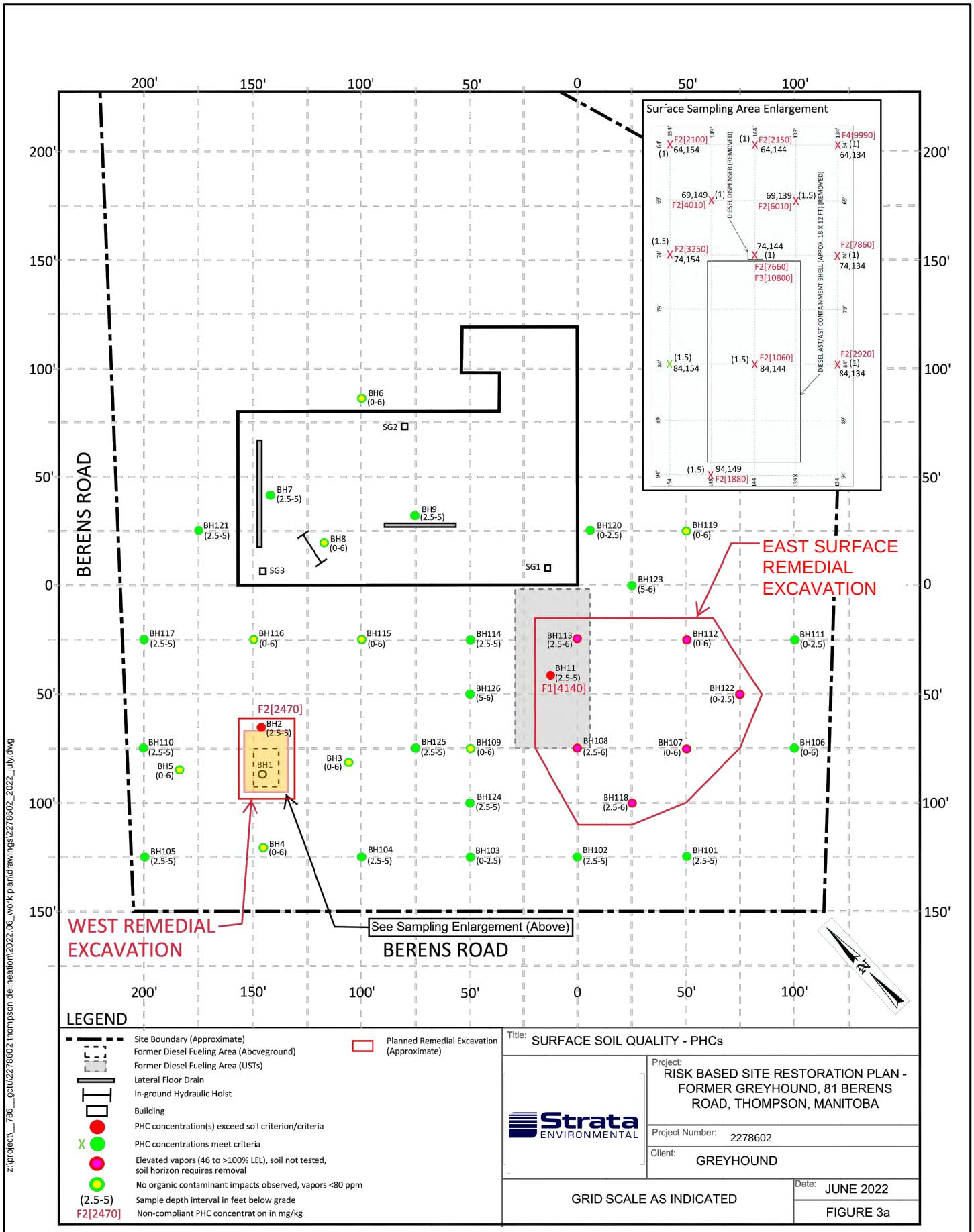

Title: SURFACE SOIL QUALITY - PHCs

Strata ENVIRONMENTAL

Project: RISK BASED SITE RESTORATION PLAN - FORMER GREYHOUND, 81 BERENS ROAD, THOMPSON, MANITOBA

Project Number: 2278602

Client: GREYHOUND

GRID SCALE AS INDICATED

Date: JUNE 2022

FIGURE 3a

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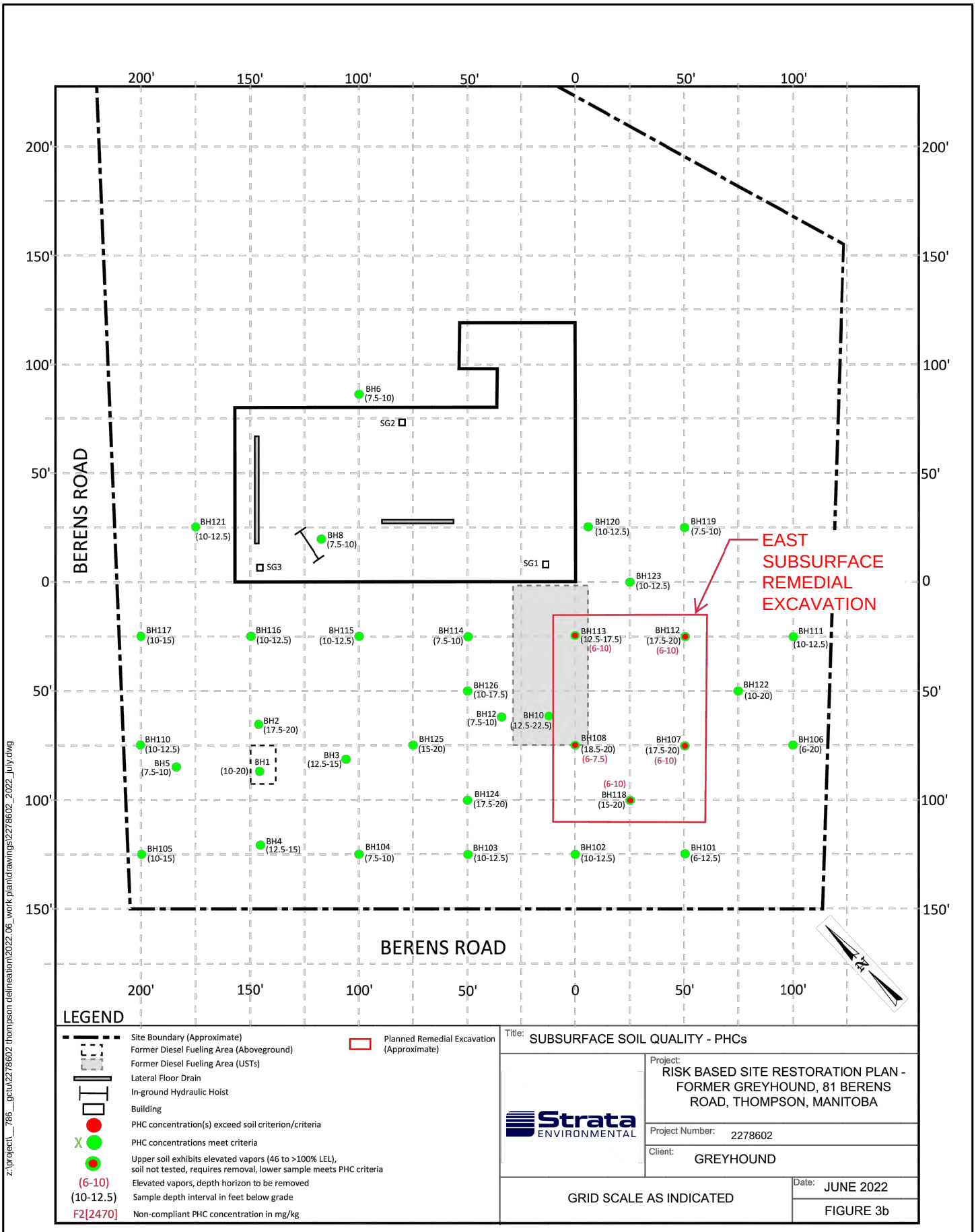
200'
150'
100'
50'
0
50'
100'
BERENS ROAD
BERENS ROAD
BH6 (7.5-10)
SG2
BH121 (10-12.5)
BH8 (7.5-10)
SG3
SG1
BH120 (10-12.5)
BH119 (7.5-10)
BH123 (10-12.5)
EAST SUBSURFACE REMEDIAL EXCAVATION
BH117 (10-15)
BH116 (10-12.5)
BH115 (10-12.5)
BH114 (7.5-10)
BH113 (12.5-17.5) (6-10)
BH112 (17.5-20) (6-10)
BH111 (10-12.5)
BH126 (10-17.5)
BH122 (10-20)
BH12 (7.5-10)
BH10 (12.5-22.5)
BH2 (17.5-20)
BH110 (10-12.5)
BH125 (15-20)
BH108 (18.5-20) (6-7.5)
BH107 (17.5-20) (6-10)
BH106 (6-20)
BH5 (7.5-10)
BH1 (10-20)
BH3 (12.5-15)
(6-10)
BH118 (15-20)
BH124 (17.5-20)
BH105 (10-15)
BH4 (12.5-15)
BH104 (7.5-10)
BH103 (10-12.5)
BH102 (10-12.5)
BH101 (6-12.5)
LEGEND
Site Boundary (Approximate)
Former Diesel Fueling Area (Aboveground)
Former Diesel Fueling Area (USTs)
Lateral Floor Drain
In-ground Hydraulic Hoist
Building
PHC concentration(s) exceed soil criterion/criteria
PHC concentrations meet criteria
Upper soil exhibits elevated vapors (46 to >100% LEL), soil not tested, requires removal, lower sample meets PHC criteria
(6-10) Elevated vapors, depth horizon to be removed
(10-12.5) Sample depth interval in feet below grade
F2[2470] Non-compliant PHC concentration in mg/kg
Planned Remedial Excavation (Approximate)
Title: SUBSURFACE SOIL QUALITY - PHCs
Strata ENVIRONMENTAL
Project: RISK BASED SITE RESTORATION PLAN - FORMER GREYHOUND, 81 BERENS ROAD, THOMPSON, MANITOBA
Project Number: 2278602
Client: GREYHOUND
GRID SCALE AS INDICATED
Date: JUNE 2022
FIGURE 3b
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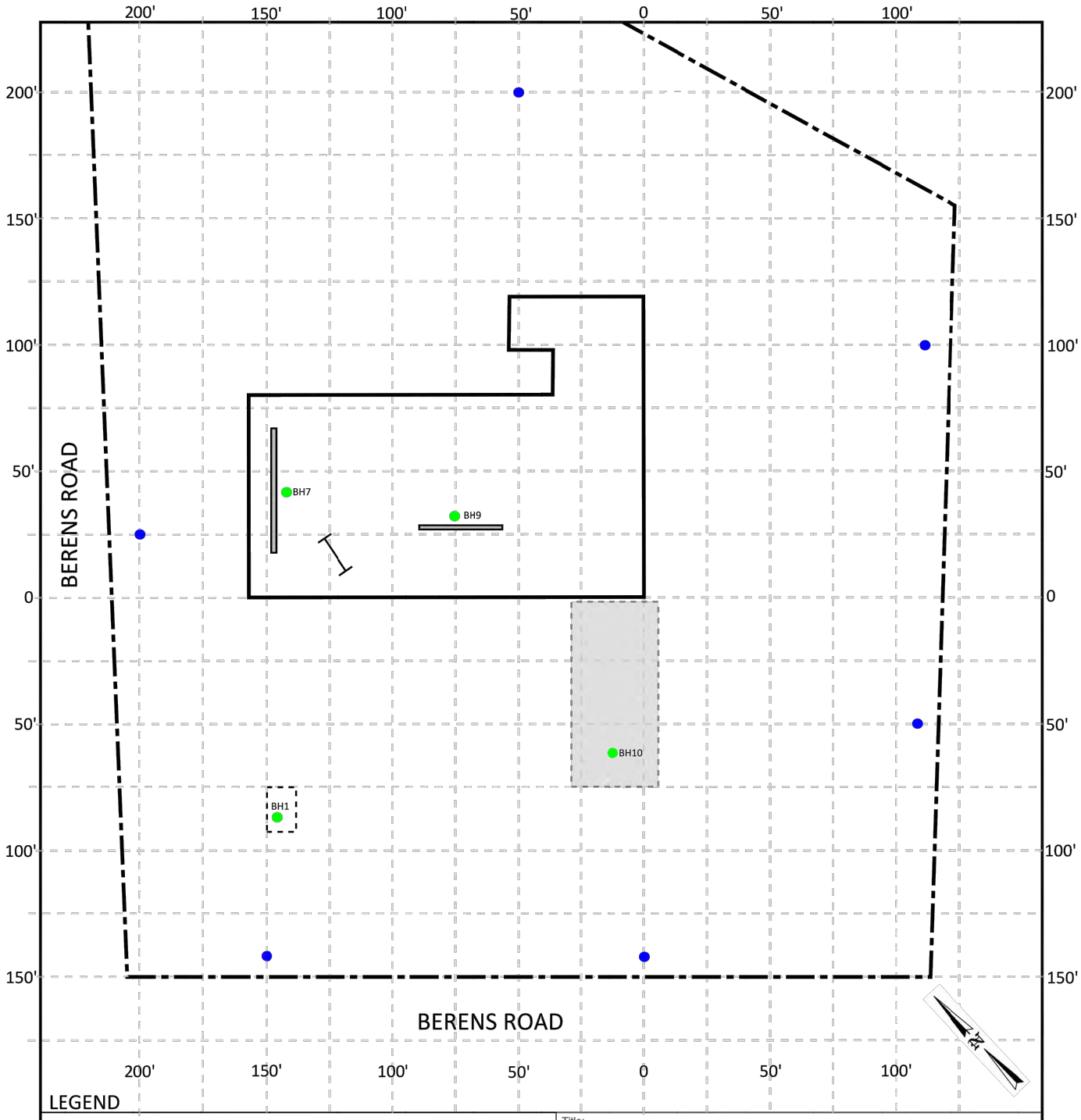

LEGEND

- Site Boundary (Approximate)
- Former Diesel Fueling Area (Aboveground)
- Former Diesel Fueling Area (USTs)
- Lateral Floor Drain
- In-ground Hydraulic Hoist
- Building
- Groundwater quality meets risk based BTEX and PHC F1 and F2 criteria
- Proposed Monitoring Well

Title: PROPOSED WELL LOCATIONS

Strata ENVIRONMENTAL

Project: RISK BASED SITE RESTORATION PLAN - FORMER GREYHOUND, 81 BERENS ROAD, THOMPSON, MANITOBA

Project Number: 2278602

Client: GREYHOUND

GRID SCALE AS INDICATED

Date: JUNE 2022

FIGURE 4

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TABLES

Table 1 Constituents Detected in Soil - BTEX and PHCs

Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Site Specific Stratified Depth Standards (1,2)		BH101	BH101	BH101	BH101	BH102	BH102	BH103	BH103
			18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22
			2.5-5 ft	5-7.5 ft	10-12.5 ft	13.5-15 ft	2.5-5 ft	10-12.5 ft	0-2.5 ft	10-12.5 ft
	Surface Soil	Subsurface Soil	0.8-1.5 m	1.8-2.3 m	3-3.8 m	4.1-4.6 m	0.8-1.5 m	3-3.8 m	0-0.8 m	3-3.8 m
	(<1.8 m)	(>1.8 m)	L2708356-1	L2708356-2	L2708356-3	L2708356-4	L2708356-5	L2708356-6	L2708356-7	L2708356-8
Benzene	2.8	2.8	0.162	0.316	7.4	4.32	3.63	2.22	0.0465	<0.005
Toluene	620	1000	<0.05	<0.05	53.6	14.8	<0.05	<0.05	<0.05	<0.05
Ethylbenzene	210	2400	<0.015	0.036	13.4	3.08	2.49	<0.015	<0.015	<0.015
Xylenes	140	1600	<0.071	<0.071	91.2	19.2	0.148	<0.071	<0.071	<0.071
F1-BTEX	800	2600	<10	<10	310	20	<10	<10	<10	<10
F2 (C10-C16)	950	3900	<25	<25	27	<25	<25	<25	<25	<25
F3 (C16-C34)	7200	7200	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	<50	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Analyte	Site Specific Stratified Depth Standards (1,2)		BH104	BH104	BH105	BH105	BH105	BH106	BH106	BH107
			18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22
			2.5-5 ft	7.5-10 ft	2.5-5 ft	10-12.5 ft	12.5-15 ft	0-2.5 ft	5-7.5 ft	17.5-20 ft
	Surface Soil	Subsurface Soil	0.8-1.5 m	2.3-3 m	0.8-1.5 m	3-3.8 m	3.8-4.6 m	0-0.8 m	1.8-2.3 m	5.3-6.1 m
	(<1.8 m)	(>1.8 m)	L2708356-9	L2708356-10	L2708356-11	L2708356-12	L2708356-13	L2708356-14	L2708356-15	L2708356-16
Benzene	2.8	2.8	<0.005	<0.005	<0.005	<0.005	0.009	0.544	<0.005	5.89
Toluene	620	1000	<0.05	<0.05	<0.05	<0.05	<0.05	2.85	<0.05	12.4
Ethylbenzene	210	2400	<0.015	0.024	<0.015	<0.015	0.122	0.628	<0.015	1.91
Xylenes	140	1600	<0.071	<0.071	<0.071	<0.071	0.228	4.02	<0.071	11.8
F1-BTEX	800	2600	<10	13	<10	<10	12	12	<10	<10
F2 (C10-C16)	950	3900	<25	105	<25	<25	59	<25	<25	<25
F3 (C16-C34)	7200	7200	<50	50	<50	<50	<50	<50	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	<50	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Notes:

Expressed in mg/kg or µg/g unless noted otherwise

1 - CCME Soil Quality Guideline Factsheets for BTEX Constituents - Most stringent risk-based guideline after pathway exclusions, commercial sites with fine-grained soil, and non-potable groundwater use

2 - Soil, Sediment and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act (2011), Ontario Ministry of the Environment - PHC constituents derived using MGRA Spreadsheet Model, most stringent risk-based standard after pathway exclusions and consideration of existing risk management measures (surface cap), commercial sites with slab-on-grade building(s), fine-grained soil, and non-potable groundwater use

L2708356-1: Laboratory sample identifier

Dates presented are sample dates

Depths provided are in metres (m) and are relative to grade.

'---' - not analyzed or no standard

Value exceeds applicable surface or subsurface criterion

Table 1 Constituents Detected in Soil - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Site Specific Stratified Depth Standards (1,2)		BH108	BH110	BH110	BH111	BH111	BH112	BH113	BH113
			18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	18-May-22	19-May-22	19-May-22
			18.5-20 ft	2.5-5 ft	10-12.5 ft	0-2.5 ft	10-12.5 ft	17.5-20 ft	12.5-15 ft	15-17.5 ft
	Surface Soil	Subsurface Soil	5.6-6.1 m	0.8-1.5 m	3-3.8 m	0-0.8 m	3-3.8 m	5.3-6.1 m	3.8-4.6 m	4.6-5.3 m
	(<1.8 m)	(>1.8 m)	L2708356-17	L2708356-18	L2708356-19	L2708356-20	L2708356-21	L2708356-22	L2708356-26	L2708356-27
Benzene	2.8	2.8	11.2	<0.005	0.0542	<0.005	<0.005	10.3	26.4	7.08
Toluene	620	1000	35.4	<0.05	0.06	<0.05	<0.05	35.5	146	26.4
Ethylbenzene	210	2400	4.71	<0.015	0.424	<0.015	<0.015	4.28	39.5	3.76
Xylenes	140	1600	28.4	<0.071	0.91	<0.071	<0.071	26.4	227	14.5
F1-BTEX	800	2600	<100	<10	36	<10	<10	<100	670	<10
F2 (C10-C16)	950	3900	<25	<25	287	<25	<25	<25	30	<25
F3 (C16-C34)	7200	7200	<50	<50	112	<50	<50	<50	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	<50	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Analyte	Site Specific Stratified Depth Standards (1,2)		BH114	BH114	BH115	BH116	BH117	BH117	BH117	BH118
			19-May-22	19-May-22	19-May-22	19-May-22	19-May-22	19-May-22	19-May-22	19-May-22
			2.5-5 ft	7.5-10 ft	10-12.5 ft	10-12.5 ft	2.5-5 ft	10-12.5 ft	12.5-15 ft	15-17.5 ft
	Surface Soil	Subsurface Soil	0.8-1.5 m	2.3-3 m	3-3.8 m	3-3.8 m	0.8-1.5 m	3-3.8 m	3.8-4.6 m	4.6-5.3 m
	(<1.8 m)	(>1.8 m)	L2708356-28	L2708356-29	L2708356-30	L2708356-31	L2708356-32	L2708356-33	L2708356-34	L2708356-35
Benzene	2.8	2.8	0.0129	<0.005	<0.005	<0.005	<0.005	0.0219	0.0773	5.65
Toluene	620	1000	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	29.3
Ethylbenzene	210	2400	<0.015	<0.015	<0.015	<0.015	<0.015	0.531	0.438	4.98
Xylenes	140	1600	<0.071	<0.071	<0.071	<0.071	<0.071	1.35	1.5	33.2
F1-BTEX	800	2600	<10	<10	<10	<10	<10	51	29	54
F2 (C10-C16)	950	3900	<25	<25	<25	<25	<25	356	80	<25
F3 (C16-C34)	7200	7200	<50	<50	<50	<50	<50	139	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	<50	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Notes:
Expressed in mg/kg or µg/g unless noted otherwise

1 - CCME Soil Quality Guideline Factsheets for BTEX Constituents - Most stringent risk-based guideline after pathway exclusions, commercial sites with fine-grained soil, and non-potable groundwater use

2 - Soil, Sediment and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act (2011), Ontario Ministry of the Environment - PHC constituents derived using MGRA Spreadsheet Model, most stringent risk-based standard after pathway exclusions and consideration of existing risk management measures (surface cap), commercial sites with slab-on-grade building(s), fine-grained soil, and non-potable groundwater use
L2708356-1: Laboratory sample identifier
Dates presented are sample dates
Depths provided are in metres (m) and are relative to grade.
'---' - not analyzed or no standard
Value exceeds applicable surface or subsurface criterion

Table 1 Constituents Detected in Soil - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Site Specific Stratified Depth Standards (1,2)		BH118	BH119	BH120	BH120	BH121	BH121	BH122	BH122
			19-May-22	18-May-22	18-May-22	18-May-22	19-May-22	19-May-22	19-May-22	19-May-22
			17.5-20 ft	7.5-10 ft	0-2.5 ft	10-12.5 ft	2.5-5 ft	10-12.5 ft	10-12.5 ft	15-17.5 ft
	Surface Soil	Subsurface Soil	5.3-6.1 m	2.3-3 m	0-0.8 m	3-3.8 m	0.8-1.5 m	3-3.8 m	3-3.8 m	4.6-5.3 m
	(<1.8 m)	(>1.8 m)	L2708356-36	L2708356-23	L2708356-24	L2708356-25	L2708356-37	L2708356-38	L2708356-39	L2708356-40
Benzene	2.8	2.8	4.98	<0.005	0.302	0.0072	<0.005	<0.005	2.48	7.85
Toluene	620	1000	15.4	<0.05	1.48	0.079	<0.05	<0.05	2.24	32.1
Ethylbenzene	210	2400	2.93	<0.015	0.237	0.021	<0.015	<0.015	1.15	4.58
Xylenes	140	1600	17.7	<0.071	0.956	0.084	<0.071	<0.071	2.63	28.7
F1-BTEX	800	2600	24	<10	<10	<10	<10	<10	<10	<50
F2 (C10-C16)	950	3900	<25	<25	<25	<25	<25	<25	<25	<25
F3 (C16-C34)	7200	7200	<50	<50	184	<50	<50	<50	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	117	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Analyte	Site Specific Stratified Depth Standards (1,2)		BH122	BH123	BH123	BH124	BH124	BH125	BH125	BH125
			19-May-22	19-May-22	19-May-22	19-May-22	19-May-22	19-May-22	19-May-22	19-May-22
			17.5-20 ft	5-7.5 ft	10-12.5 ft	2.5-5 ft	17.5-20 ft	2.5-5 ft	15-17.5 ft	17.5-20 ft
	Surface Soil	Subsurface Soil	5.3-6.1 m	1.8-2.3 m	3-3.8 m	0.8-1.5 m	5.3-6.1 m	0.8-1.5 m	4.6-5.3 m	5.3-6.1 m
	(<1.8 m)	(>1.8 m)	L2708356-41	L2708356-42	L2708356-43	L2708356-44	L2708356-45	L2708356-46	L2708356-47	L2708356-48
Benzene	2.8	2.8	8.64	0.0122	0.165	0.751	3.94	0.441	6.94	2.71
Toluene	620	1000	29.5	<0.05	<0.05	<0.05	7.12	<0.05	14.2	5.81
Ethylbenzene	210	2400	2.87	<0.015	<0.015	<0.015	1.44	<0.015	2.73	0.905
Xylenes	140	1600	17.2	<0.071	<0.071	<0.071	7.83	<0.071	16.9	5.82
F1-BTEX	800	2600	<50	<10	<10	<10	16	<10	38	<10
F2 (C10-C16)	950	3900	<25	<25	<25	<25	35	<25	<25	<25
F3 (C16-C34)	7200	7200	<50	<50	<50	<50	<50	<50	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	<50	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Notes:
Expressed in mg/kg or µg/g unless noted otherwise

1 - CCME Soil Quality Guideline Factsheets for BTEX Constituents - Most stringent risk-based guideline after pathway exclusions, commercial sites with fine-grained soil, and non-potable groundwater use

2 - Soil, Sediment and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act (2011), Ontario Ministry of the Environment - PHC constituents derived using MGRA Spreadsheet Model, most stringent risk-based standard after pathway exclusions and consideration of existing risk management measures (surface cap), commercial sites with slab-on-grade building(s), fine-grained soil, and non-potable groundwater use
L2708356-1: Laboratory sample identifier
Dates presented are sample dates
Depths provided are in metres (m) and are relative to grade.
'---' - not analyzed or no standard
Value exceeds applicable surface or subsurface criterion

Table 1 Constituents Detected in Soil - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Site Specific Stratified Depth Standards (1,2)		BH126	BH126	BH126	BH1	BH1	BH2	BH2	BH3
			19-May-22	19-May-22	19-May-22	9-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19
			5-7.5 ft	10-15 ft	15-17.5 ft	10-12.5 ft	17.5-20 ft	2.5-5 ft	17.5-20 ft	12.5-15 ft
	Surface Soil	Subsurface Soil	1.8-2.3 m	3-4.6 m	4.6-5.3 m	3-3.7 m	5.3-6.1 m	0.8-1.5 m	5.3-6.1 m	3.8-4.6 m
	(<1.8 m)	(>1.8 m)	L2708356-49	L2708356-50	L2708356-51	L2257286-1	L2257286-2	L2257286-3	L2257286-5	L2257286-6
Benzene	2.8	2.8	0.477	3.45	6.07	0.179	---	0.212	---	---
Toluene	620	1000	0.796	12.7	11.3	0.301	---	0.081	---	---
Ethylbenzene	210	2400	0.084	5.19	3.69	2.27	---	3.34	---	---
Xylenes	140	1600	0.372	26.5	16.9	3.12	---	1.31	---	---
F1-BTEX	800	2600	15	216	58	249	---	354	---	---
F2 (C10-C16)	950	3900	48	242	<25	1120	<25	2470	30	389
F3 (C16-C34)	7200	7200	<50	61	<50	517	<50	1240	<50	213
F4 (C34-C50)	8000	8000	<50	<50	<50	<50	<50	<50	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Analyte	Site Specific Stratified Depth Standards (1,2)		BH4	BH5	BH6	BH7	BH8	BH9	BH10	BH10
			9-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19
			12.5-15 ft	7.5-10 ft	7.5-10 ft	2.5-5 ft	7.5-10 ft	2.5-5 ft	12.5-15 ft	20-22.5 ft
	Surface Soil	Subsurface Soil	3.8-4.6 m	2.3-3 m	2.3-3 m	0.8-1.5 m	2.3-3 m	0.8-1.5 m	3.8-4.6 m	6.1-6.9 m
	(<1.8 m)	(>1.8 m)	L2257286-7	L2257286-13	L2257286-12	L2257286-11	L2257286-10	L2257286-9	L2257286-14	L2257286-15
Benzene	2.8	2.8	---	---	<0.005	<0.005	---	<0.005	46.2	3.99
Toluene	620	1000	---	---	<0.05	<0.05	---	<0.05	277	5.97
Ethylbenzene	210	2400	---	---	<0.015	<0.015	---	<0.015	55.8	1.8
Xylenes	140	1600	---	---	<0.045	<0.045	---	<0.045	372	12.5
F1-BTEX	800	2600	---	---	16	<10	---	82	1320	10
F2 (C10-C16)	950	3900	306	739	37	<25	<25	1520	206	<25
F3 (C16-C34)	7200	7200	108	281	1270	6770	<50	2520	<50	<50
F4 (C34-C50)	8000	8000	<50	<50	225	5120	<50	976	<50	<50
F4 Gravimetrics	8000	8000	---	---	---	---	---	---	---	---

Notes:
Expressed in mg/kg or µg/g unless noted otherwise

1 - CCME Soil Quality Guideline Factsheets for BTEX Constituents - Most stringent risk-based guideline after pathway exclusions, commercial sites with fine-grained soil, and non-potable groundwater use

2 - Soil, Sediment and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act (2011), Ontario Ministry of the Environment - PHC constituents derived using MGRA Spreadsheet Model, most stringent risk-based standard after pathway exclusions and consideration of existing risk management measures (surface cap), commercial sites with slab-on-grade building(s), fine-grained soil, and non-potable groundwater use
L2708356-1: Laboratory sample identifier
Dates presented are sample dates
Depths provided are in metres (m) and are relative to grade.
'---' - not analyzed or no standard
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Table 1 Constituents Detected in Soil - BTEX and PHCs

Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Site Specific Stratified Depth Standards (1,2)		BH11	BH12	64,134,1	64,144,1	64,154,1	69,139,1.5	69,149,1	74,134,1
			10-Apr-19	10-Apr-19	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18
			2.5-5 ft	7.5-10 ft						
	Surface Soil	Subsurface Soil	0.8-1.5 m	2.3-3 m						
	(<1.8 m)	(>1.8 m)	L2257286-16	L2257286-17	L2198549-2	L2198549-1	L2198549-3	L2198549-5	L2198549-4	L2198549-6
Benzene	2.8	2.8	26.9	0.203	---	<0.0050	---	---	---	---
Toluene	620	1000	195	<0.05	---	<0.050	---	---	---	---
Ethylbenzene	210	2400	123	0.3	---	<0.015	---	---	---	---
Xylenes	140	1600	573	0.283	---	0.695	---	---	---	---
F1-BTEX	800	2600	4140	10	---	66	---	---	---	---
F2 (C10-C16)	950	3900	376	27	2100	2150	240	6010	4010	7860
F3 (C16-C34)	7200	7200	64	<50	3010	3350	3330	4200	3080	5030
F4 (C34-C50)	8000	8000	<50	<50	1750	2240	2510	<50	102	75
F4 Gravimetrics	8000	8000	---	---	5420	5490	9990	---	---	---

Analyte	Site Specific Stratified Depth Standards (1,2)		74,144,1	74,154,1.5	84,134,1	84,144,1.5	84,154,1.5	94,149,1.5
			16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18
	Surface Soil	Subsurface Soil						
	(<1.8 m)	(>1.8 m)	L2198549-7	L2198549-10	L2198549-8	L2198549-11	L2198549-12	L2198549-13
Benzene	2.8	2.8	<0.0050	---	<0.0050	---	---	---
Toluene	620	1000	0.057	---	<0.050	---	---	---
Ethylbenzene	210	2400	<0.015	---	0.026	---	---	---
Xylenes	140	1600	<0.071	---	0.214	---	---	---
F1-BTEX	800	2600	144	---	103	---	---	---
F2 (C10-C16)	950	3900	7660	3250	2920	1060	863	1880
F3 (C16-C34)	7200	7200	10800	3430	2420	1490	1270	1950
F4 (C34-C50)	8000	8000	140	51	<50	<50	<50	54
F4 Gravimetrics	8000	8000	---	---	---	---	---	---

Notes:

Expressed in mg/kg or µg/g unless noted otherwise

1 - CCME Soil Quality Guideline Factsheets for BTEX Constituents - Most stringent risk-based guideline after pathway exclusions, commercial sites with fine-grained soil, and non-potable groundwater use

2 - Soil, Sediment and Ground Water Standards for Use under Part XV.1 of the Environmental Protection Act (2011), Ontario Ministry of the Environment - PHC constituents derived using MGRA Spreadsheet Model, most stringent risk-based standard after pathway exclusions and consideration of existing risk management measures (surface cap), commercial sites with slab-on-grade building(s), fine-grained soil, and non-potable groundwater use

L2708356-1: Laboratory sample identifier

Dates presented are sample dates

Depths provided are in metres (m) and are relative to grade.

'---' - not analyzed or no standard

Value exceeds applicable surface or subsurface criterion

Table 2 Constituents Detected in Groundwater - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Site Specific Criteria	BH1	BH7	BH7
		11-Apr-19	11-Apr-19	11-Apr-19
				DUP-W1
		L2257286-19	L2257286-20	L2257286-23
Benzene	19 [1]	0.0518	<0.00050	<0.00050
Toluene	260	0.0065	<0.00050	<0.00050
Ethylbenzene	85	0.0525	<0.00050	<0.00050
Xylenes	53	0.164	<0.00050	<0.00050
F1 (C6-C10) - BTEX	1.9	<0.10	<0.10	<0.10
F2 (C10-C16)	360 [2]	1.38	0.36	---
F3 (C16-C34)	---	0.78	1.19	---
F4 (C34-C50)	---	<0.25	0.3	---

Analyte	Site Specific Criteria	BH9	BH10
		11-Apr-19	11-Apr-19
		L2257286-21	L2257286-22
Benzene	19 [1]	<0.00050	6.94
Toluene	260	0.00089	9.03
Ethylbenzene	85	<0.00050	0.747
Xylenes	53	0.001	3.93
F1 (C6-C10) - BTEX	1.9	<0.10	<5.0
F2 (C10-C16)	360 [2]	0.79	0.61
F3 (C16-C34)	---	3.08	1.5
F4 (C34-C50)	---	<0.25	1.27

Notes:
Expressed in mg/L
1 – based on 10^{-5} incremental carcinogenic risk
2 - must demonstrate no free phase liquid
L2257286-19: Laboratory sample identifier
'"---" - no standard/guideline or not analyzed

Table 3 Constituents Detected in Soil Gas - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Parameter	Soil Gas Objective	SG1	DUP-SG	SG2	SG3
		12-Aug-20	12-Aug-20	12-Aug-20	12-Aug-20
Benzene	1100 (1)	2.39	7.75	10.5	<0.64
Toluene	683,000	15.3	86.3	27.8	8.40
Ethylbenzene	180,000	3.93	18.3	7.62	1.35
Xylenes	32,000	25.4	99.2	18.5	7.1
PHC Aliphatic C>6-8	3,332,000	1210	623	3090	177
PHC Aliphatic C>8-10	174,000	174	608	2890	111
PHC Aliphatic C>10-12	182,000	578	2140	667	373
PHC Aliphatic C>12-16	182,000	83	133	217	129
PHC Aromatic C>8-10	29,000	45	178	<150	18
PHC Aromatic C>10-12	36,000	15	40	18	<15
PHC Aromatic C>12-16	36,000	<30	<30	<30	<30

Notes:
Expressed in mg/L
All values expressed in µg/m3 (SGOs converted from mg/m3)
1 - SGO based on $1x10^{-5}$ incremental risk

APPENDIX A
DECEMBER 2018 SURFACE SOIL QUALITY ASSESSMENT

December 3, 2018

Ms. Susan Kirkpatrick
Sr. Environmental Project and Program Manager
FirstGroup America
600 Vine Street, Suite 1400
Cincinnati, Ohio 45202

Surface Soil Quality Assessment
Former Aboveground Diesel Depot
Thompson, Manitoba
Strata Environmental Services, Inc. Project Number 1878488

Dear Ms. Kirkpatrick:

Under the authorization of FirstGroup America, Inc. (FirstGroup) and acting on behalf of Greyhound Lines, Inc. (Greyhound), Strata Environmental Services, Inc. (Strata) is pleased to provide the results of the surface soil quality assessment (SSQA) carried out in the area of the former aboveground diesel depot at the Greyhound facility located at 81 Berens Road, Thompson, Manitoba (Site). The diesel depot, which was removed from the Site immediately prior to the completion of the SSQA on November 16, 2018, consisted of an aboveground storage tank (AST) situated within a secondary containment shell linked by aboveground product piping to a fuel dispenser. The SSQA involved the collection of soil samples in the area of the former diesel depot for contaminant screening with selected samples analyzed for petroleum constituents. The location of the Site is illustrated on Figure 1. A site plan is provided as Figure 2. The locations of the soil samples collected in the area of the diesel depot are shown on Figure 3.

Methodology

Soil Quality Assessment

Following the removal of the diesel fuel facilities, soil samples were collected at the nodes of a 20 ft by 30 ft sampling grid positioned to encompass the full areal extent of the former fueling area: AST, AST containment shell, fuel dispenser, and adjacent vehicle fueling area inclusive (Figure 3). The sample nodes were set at 5 ft intervals and the samples were collected from the upper 1.5 ft of the soil profile. The samples were referenced to an x,y,z coordinate system with its point of origin set at the south corner of the Greyhound building. The x and y coordinates are lateral distances in feet orientated perpendicular (x) and parallel (y) to the southwest wall of the building. The z coordinate refers to the sample depth in feet.

Each soil sample was split with half placed in a polyethylene bag for field screening and the other half bagged and collected following thawing for possible laboratory analysis. Field screening included an assessment of the soil samples for visual and olfactory evidence of fuel/anthropogenic impact and the measurement of combustible vapours in the bag head space using an RKI Eagle vapour detector calibrated against hexane and operated in methane

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elimination mode. Samples exhibiting diesel odour and elevated vapour concentrations were retained for laboratory analysis of the contaminants of potential concern associated with fuels: benzene, toluene, ethylbenzene and xylenes (BTEX) and petroleum hydrocarbon fractions 1 (F1), 2 (F2), 3 (F3), and 4 (F4). In addition, two field duplicates acquired at 84,134,1 and 74,134,1 denoted DUP-S1 and DUP-S2 were collected for analysis of PHC F2, F3, and F4 for Quality Assurance/Quality Control (QA/QC) purposes. The samples were submitted to ALS Laboratories, a Canadian Association for Laboratory Accreditation Inc. (CALA)-accredited laboratory, in Winnipeg.

Assessment Standards

As per the *Environmental Site Assessments in Manitoba Guideline* issued in June 2016 by Manitoba Sustainable Development, the soil assessment criteria and standards applied to the Site include

- Canadian Council of Ministers of the Environment (CCME), *Canadian Environmental Quality Guidelines* (online, current as of date of issue of this report), and
- CCME, *Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil: and Technical Supplement* (2008).

A frost penetration study carried out in Thompson entitled *Permafrost Occurrence and Associated Problems in Thompson Manitoba* published by Goodman and Hardy in 1963 indicates the native soil profile in the Thompson area consists of a near surface clay unit that extends to at least 30 ft below grade. Because the upper unit is composed of clay, the fine-grained guidelines/standards set out in the CCME publications are applied in this assessment. It should be noted that the actual soil type and associated grain size applicable to the Site may be subject to change based on the results of future intrusive investigations.

Results

Fuel Depot Removal and Soil Sampling

On November 16, 2018, Absolute Petroleum Ltd. (APL) dismantled and removed the aboveground fuel facilities from the Site. The AST, product piping, fuel dispenser, and AST containment shell were transported off-site for recycling. Records documenting the destinations of the fuel facilities are maintained on-file at APL's office located at 44 Poneida Road in West St. Paul, Manitoba.

After the fuel facilities were removed, soil samples were collected at the nodes of the grid illustrated on Figure 3 by Strata personnel, using a frost hammer mounted to a bobcat operated by APL.

Stratigraphy

The soil stratigraphy apparent at the sample locations consisted of sand and gravel, which was frozen to the maximum depth sampled (1.5 ft below grade).

Groundwater Conditions

Groundwater seepage and non-aqueous phase liquid was not apparent at the sample locations.

Soil Quality Observations and Vapour Concentrations

Seventeen of the 19 soil samples collected exhibited diesel odour. Vapour concentrations in the samples with diesel odour ranged from 30 to 50 ppm.

The samples that were devoid of diesel odour were acquired at the southwest side of the sample grid at sampling nodes 94,139 and 89,134. The vapour concentration in these samples was measured at 10 ppm.

Soil Laboratory Results

The results of laboratory testing performed on 12 analyzed soil samples recovered from the sampling grid are presented along with the applicable guidelines/standards in Table 1. Laboratory certificates supporting this data are provided in Appendix A.

As presented, all 12 analyzed soil samples exhibited PHC F2 concentrations in excess of the applicable standard (230 mg/kg) and 9 of the 12 analyzed soil samples exhibited PHC F3 concentrations above the applicable standard (2,500 mg/kg). In addition, the analyzed sample at 84,134,1 exhibited an ethylbenzene concentration (0.026 mg/kg) above the guideline of 0.018 mg/kg. The PHC F2 and F3 concentrations in excess of the standards ranged from 240 to 8,350 mg/kg and from 2,690 to 10,800 mg/kg, respectively.

The laboratory results on the QA/QC sample sets (samples and sample duplicates) were either the same or yielded Relative Percent Differences (RPDs) that did not exceed 17%. Considering the results were the same and/or did not exceed the field RPD threshold of 50%, the results as a whole are considered to represent good reproducibility, suggesting that the field sampling methodology and associated field QA/QC protocols were executed in a manner which yielded a reliable data set. A review of the QA/QC data presented in the laboratory certificates indicates the batch analyses were consistent with generally accepted industry practices and the results appear to indicate satisfactory data reproducibility, precision, and accuracy.

Conclusions

Based on the observations and results, surface soil in the area of the former diesel depot exhibits a diesel odour and is contaminated with petroleum constituents at concentrations in excess of applicable standards/guidelines. Further action would be required to delineate the lateral and vertical extent of the contamination and develop a suitable remedial/risk management plan for implementation at the Site.

It has been Strata's pleasure to be of service to FirstGroup. Please be advised that the limitations and general conditions outlined in Attachment 2 form part of this report. If you have any questions or require further information, please advise.

Sincerely,

STRATA ENVIRONMENTAL SERVICES, INC.

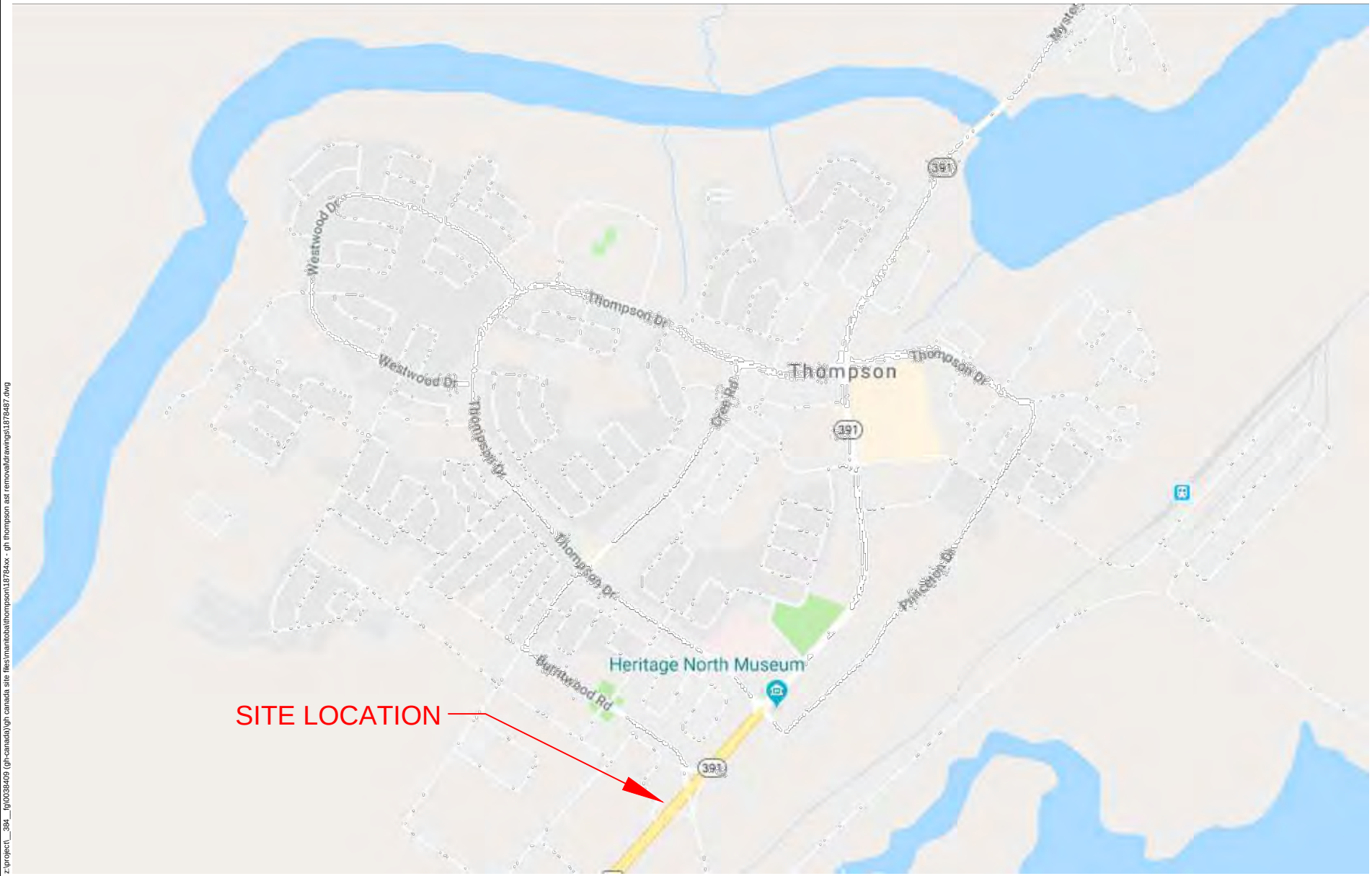
Darren J. Coleman, P.Eng.
President (COLESTAR Environmental, Inc.)
COLESTAR Permit to Practice #P11799

Edward R. Hyde
Environmental Construction Manager

DJC:ERH/jao

Enclosures

ATTACHMENT 1
FIGURES AND TABLE



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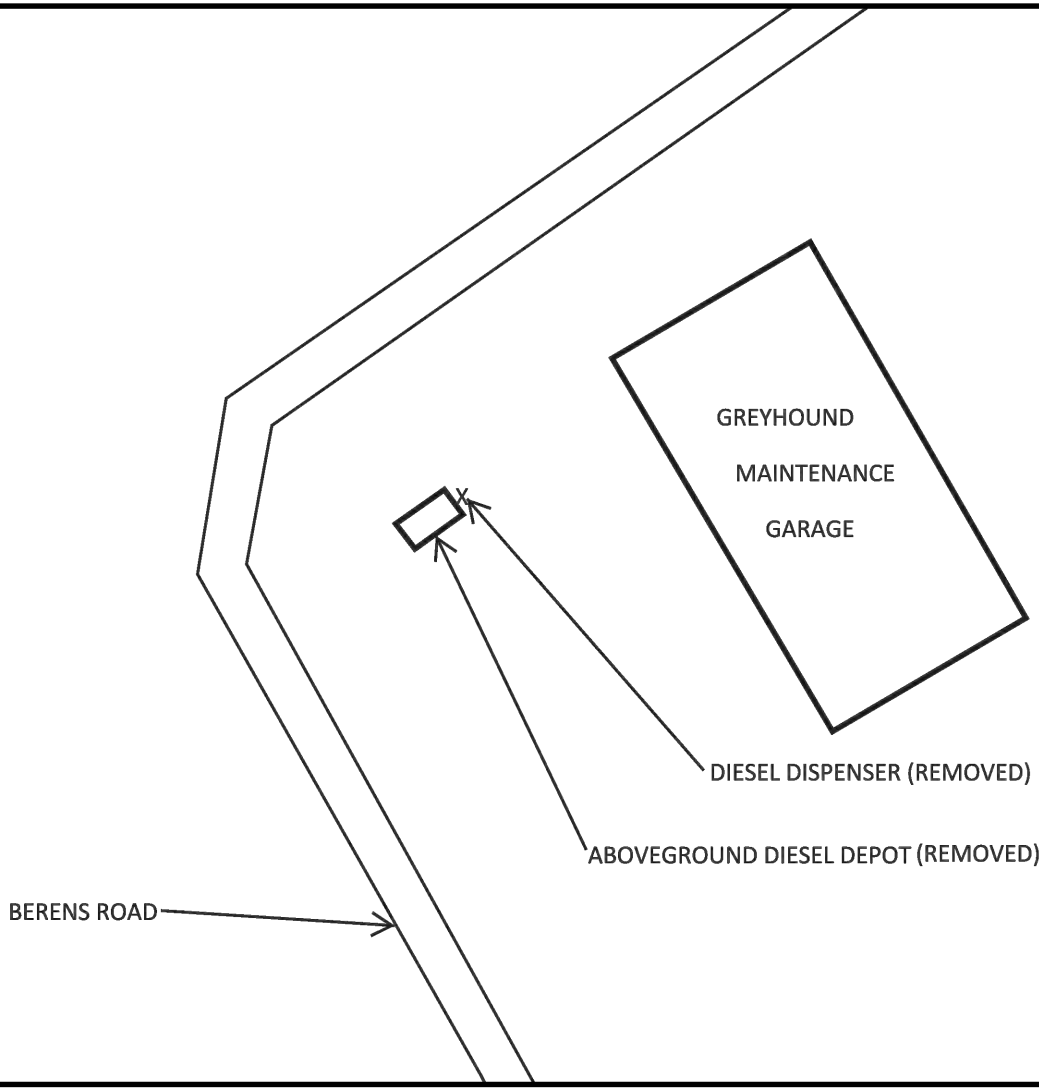
PROJECT NUMBER 1878487

DATE December 2018

Site Location

Greyhound Diesel Fuel Depot
81 Berens Road, Thompson, MB

FIGURE 1



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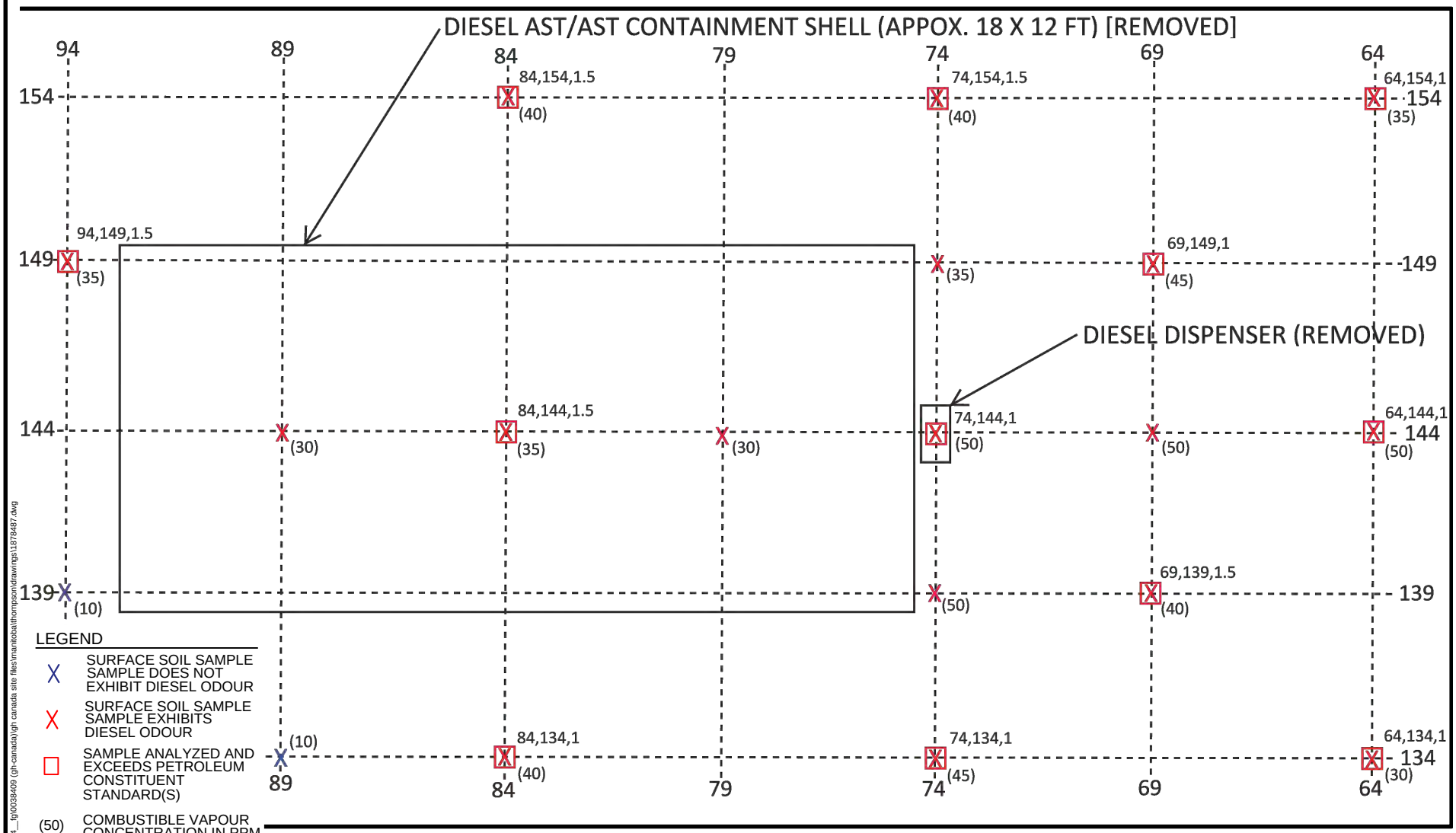
Site Plan

FIGURE 2

PROJECT NUMBER	DATE
1878487	December 2018

Greyhound Diesel Fuel Depot
81 Berens Road, Thompson, MB



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PROJECT NUMBER 1878487

DATE December 2018

Soil Sampling Locations

Greyhound Diesel Fuel Depot
81 Berens Road, Thompson, MB

FIGURE 3

TABLE 1

Soil Laboratory Results: BTEX and PHCs

Surface Soil Quality Assessment

Greyhound Canada - Thompson, Manitoba

(Expressed in mg/kg unless noted otherwise)

Parameter	Assessment Criteria (1)	64,134,1	64,144,1	64,154,1	69,139,1.5	69,149,1	74,134,1	74,134,1
		16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18
								DUP-S2
	fine	L2198549-2	L2198549-1	L2198549-3	L2198549-5	L2198549-4	L2198549-6	L2198549-14
Benzene	0.0068	---	<0.0050	---	---	---	---	---
Toluene	0.08	---	<0.050	---	---	---	---	---
Ethylbenzene	0.018	---	<0.015	---	---	---	---	---
Xylenes	2.4	---	0.695	---	---	---	---	---
F1 (C6-C10) - BTEX	170	---	66	---	---	---	---	---
F2 (C10-C16 Hydrocarbons)	230	**2100**	**2150**	**240**	**6010**	**4010**	**7860**	**8350**
F3 (C16-C34 Hydrocarbons)	2500	**3010**	**3350**	**3330**	**4200**	**3080**	**5030**	**5550**
F4 (C34-C50 Hydrocarbons)	6600	1750	2240	2510	<50	102	75	89
Reached Baseline at C50	---	NO	NO	NO	YES	YES	YES	YES
F4 Gravimetrics (2)	6600	5420	5490	**9990**	---	---	---	---

Parameter	Assessment Criteria (1)	74,144,1	74,154,1.5	84,134,1	84,134,1	84,144,1.5	84,154,1.5	94,149,1.5
		16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18
					DUP-S1			
	fine	L2198549-7	L2198549-10	L2198549-8	L2198549-9	L2198549-11	L2198549-12	L2198549-13
Benzene	0.0068	<0.0050	---	<0.0050	---	---	---	---
Toluene	0.08	0.057	---	<0.050	---	---	---	---
Ethylbenzene	0.018	<0.015	---	**0.026**	---	---	---	---
Xylenes	2.4	<0.071	---	0.214	---	---	---	---
F1 (C6-C10) - BTEX	170	144	---	103	---	---	---	---
F2 (C10-C16 Hydrocarbons)	230	**7660**	**3250**	**2920**	**3130**	**1060**	**863**	**1880**
F3 (C16-C34 Hydrocarbons)	2500	**10800**	**3430**	2420	**2690**	1490	1270	1950
F4 (C34-C50 Hydrocarbons)	6600	140	51	<50	<50	<50	<50	54
Reached Baseline at C50	---	YES	YES	YES	YES	YES	YES	YES
F4 Gravimetrics (2)		---	---	---	---	---	---	---

Notes:

1 - Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (online, 2018) and Canada Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (2008): commercial sites with fine-grained soil.

2 - represents PHC F4 when PHC fractions do not descend to C50 baseline

L2198549-2: Laboratory sample identifier

Dates presented are sample dates

'---' - no standard or not analyzed

ATTACHMENT 2
LABORATORY CERTIFICATES

COLESTAR Environmental Inc.
ATTN: Darren Coleman
178 Fincham Avenue
Markham ON L3P 4B3

Date Received: 19-NOV-18
Report Date: 28-NOV-18 13:17 (MT)
Version: FINAL

Client Phone: 905-554-4156

Certificate of Analysis

Lab Work Order #: L2198549

Project P.O. #: NOT SUBMITTED
Job Reference: 0301-01
C of C Numbers:
Legal Site Desc:

Hua Wo
Chemistry Laboratory Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2198549-1 64,144,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	6.14		0.10	%		20-NOV-18	R4347730
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	16-NOV-18	23-NOV-18	R4357988
Ethyl benzene	<0.015		0.015	mg/kg	16-NOV-18	23-NOV-18	R4357988
Toluene	<0.050		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
o-Xylene	0.358		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
m+p-Xylenes	0.336		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
Xylenes (Total)	0.695		0.071	mg/kg		26-NOV-18	
F1 (C6-C10)	67		10	mg/kg	16-NOV-18	23-NOV-18	R4357988
F1-BTEX	66		10	mg/kg		26-NOV-18	
Total Hydrocarbons (C6-C50)	7800		380	mg/kg		26-NOV-18	
Surrogate: 4-Bromofluorobenzene (SS)	116.6		70-130	%	16-NOV-18	23-NOV-18	R4357988
Hydrocarbons							
F2 (C10-C16)	2150	DLA	130	mg/kg	21-NOV-18	21-NOV-18	R4345889
F3 (C16-C34)	3350	DLA	250	mg/kg	21-NOV-18	21-NOV-18	R4345889
F4 (C34-C50)	2240	DLA	250	mg/kg	21-NOV-18	21-NOV-18	R4345889
F4G-SG	5490		500	mg/kg		24-NOV-18	R4356995
Chrom. to baseline at nC50	NO				21-NOV-18	21-NOV-18	R4345889
Surrogate: 2-Bromobenzotrifluoride	94.4		60-140	%	21-NOV-18	21-NOV-18	R4345889
L2198549-2 64,134,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	8.45		0.10	%		20-NOV-18	R4347730
pH (1:2 CaCl2)	8.18		0.10	pH		22-NOV-18	R4356156
Hydrocarbons							
F2 (C10-C16)	2100	DLA	130	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	3010	DLA	250	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	1750	DLA	250	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4G-SG	5420		500	mg/kg		28-NOV-18	R4364587
Chrom. to baseline at nC50	NO				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	93.5		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-3 64,154,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	6.08		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	240	DLA	130	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	3330	DLA	250	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	2510	DLA	250	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4G-SG	9990		500	mg/kg		28-NOV-18	R4364587
Chrom. to baseline at nC50	NO				22-NOV-18	23-NOV-18	R4355970

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2198549-3 64,154,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Hydrocarbons							
Surrogate: 2-Bromobenzotrifluoride	91.4		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-4 64,149,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	6.62		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	4010		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	3080		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	102		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	97.9		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-5 64,139,1.5 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	5.20		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	6010		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	4200		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	<50		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	100.7		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-6 74,134,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	9.89		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	7860		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	5030		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	75		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	120.3		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-7 74,144,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	11.6		0.10	%		20-NOV-18	R4347730
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	16-NOV-18	23-NOV-18	R4357988
Ethyl benzene	<0.015		0.015	mg/kg	16-NOV-18	23-NOV-18	R4357988
Toluene	0.057		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
o-Xylene	<0.050		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2198549-7 74,144,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Volatile Organic Compounds							
m+p-Xylenes	0.062		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
Xylenes (Total)	<0.071		0.071	mg/kg		26-NOV-18	
F1 (C6-C10)	144		10	mg/kg	16-NOV-18	23-NOV-18	R4357988
F1-BTEX	144		10	mg/kg		26-NOV-18	
Total Hydrocarbons (C6-C50)	18800		76	mg/kg		26-NOV-18	
Surrogate: 4-Bromofluorobenzene (SS)	92.8		70-130	%	16-NOV-18	23-NOV-18	R4357988
Hydrocarbons							
F2 (C10-C16)	7660		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	10800		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	140		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	97.4		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-8 84,134,1 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	5.65		0.10	%		20-NOV-18	R4347730
Volatile Organic Compounds							
Benzene	<0.0050		0.0050	mg/kg	16-NOV-18	23-NOV-18	R4357988
Ethyl benzene	0.026	EMPC	0.015	mg/kg	16-NOV-18	23-NOV-18	R4357988
Toluene	<0.050		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
o-Xylene	0.094		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
m+p-Xylenes	0.120		0.050	mg/kg	16-NOV-18	23-NOV-18	R4357988
Xylenes (Total)	0.214		0.071	mg/kg		26-NOV-18	
F1 (C6-C10)	103		10	mg/kg	16-NOV-18	23-NOV-18	R4357988
F1-BTEX	103		10	mg/kg		26-NOV-18	
Total Hydrocarbons (C6-C50)	5440		76	mg/kg		26-NOV-18	
Surrogate: 4-Bromofluorobenzene (SS)	95.4		70-130	%	16-NOV-18	23-NOV-18	R4357988
Hydrocarbons							
F2 (C10-C16)	2920		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	2420		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	<50		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	99.1		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-9 DUP-51 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	5.96		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	3130		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	2690		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	<50		50	mg/kg	22-NOV-18	23-NOV-18	R4355970

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2198549-9 DUP-51 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Hydrocarbons							
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	104.7		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-10 74,154,1.5 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	8.88		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	3250		25	mg/kg	22-NOV-18	23-NOV-18	R4355970
F3 (C16-C34)	3430		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
F4 (C34-C50)	51		50	mg/kg	22-NOV-18	23-NOV-18	R4355970
Chrom. to baseline at nC50	YES				22-NOV-18	23-NOV-18	R4355970
Surrogate: 2-Bromobenzotrifluoride	102.1		60-140	%	22-NOV-18	23-NOV-18	R4355970
L2198549-11 84,144,1.5 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	6.46		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	1060		25	mg/kg	24-NOV-18	25-NOV-18	R4364119
F3 (C16-C34)	1490		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
F4 (C34-C50)	<50		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
Chrom. to baseline at nC50	YES				24-NOV-18	25-NOV-18	R4364119
Surrogate: 2-Bromobenzotrifluoride	97.5		60-140	%	24-NOV-18	25-NOV-18	R4364119
L2198549-12 84,154,1.5 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	8.27		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	863		25	mg/kg	24-NOV-18	25-NOV-18	R4364119
F3 (C16-C34)	1270		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
F4 (C34-C50)	<50		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
Chrom. to baseline at nC50	YES				24-NOV-18	25-NOV-18	R4364119
Surrogate: 2-Bromobenzotrifluoride	95.1		60-140	%	24-NOV-18	25-NOV-18	R4364119
L2198549-13 94,149,1.5 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	5.40		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	1880		25	mg/kg	24-NOV-18	25-NOV-18	R4364119
F3 (C16-C34)	1950		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
F4 (C34-C50)	54		50	mg/kg	24-NOV-18	25-NOV-18	R4364119

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2198549-13 94,149,1.5 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Hydrocarbons							
Chrom. to baseline at nC50	YES				24-NOV-18	25-NOV-18	R4364119
Surrogate: 2-Bromobenzotrifluoride	97.2		60-140	%	24-NOV-18	25-NOV-18	R4364119
L2198549-14 DUP-S2 Sampled By: CF on 16-NOV-18 Matrix: SOIL							
Physical Tests							
Moisture	10.3		0.10	%		20-NOV-18	R4347730
Hydrocarbons							
F2 (C10-C16)	8350		25	mg/kg	24-NOV-18	25-NOV-18	R4364119
F3 (C16-C34)	5550		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
F4 (C34-C50)	89		50	mg/kg	24-NOV-18	25-NOV-18	R4364119
Chrom. to baseline at nC50	YES				24-NOV-18	25-NOV-18	R4364119
Surrogate: 2-Bromobenzotrifluoride	122.4		60-140	%	24-NOV-18	25-NOV-18	R4364119

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution
EMPC	Estimated Maximum Possible Concentration. Parameter detected but didn't meet all criteria for positive identification.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Soil	BTX plus F1 by GCMS	EPA 8260C

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-S

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-TMB-FID-WP	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using a gas chromatograph equipped with a flame -ionization detector.

F4G-TMB-WP	Soil	CCME Gravimetric Heavy Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-S

A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using gravimetric method

MOISTURE-WP	Soil	% Moisture	CCME CWS-PHC, Pub #1310, Dec 2001

Moisture content in solid matrices is determined gravimetrically after drying to constant weight at 105°C.

PH-1:2 CACL2-WP	Soil	pH (1:2 CaCl2)	CSSS 16.3-(0.01 M CACL2 1:2 extraction)

Soil and 0.01M CaCl2 are mixed in a defined ratio. The slurry is allowed to stand, shaken and then allowed to stand again prior to taking the pH measurement of the liquid portion of the extract. The pH is measured by meter. Field measurement is recommended where accurate pH measurements are required, due to the 15 minute recommended hold time.

XYLENES-SUM-CALC-WP	Soil	Sum of Xylene Isomer Concentrations	CALCULATED RESULT

Total xylenes represents the sum of o-xylene and m&p-xylene.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: COLESTAR Environmental Inc.
178 Fincham Avenue
Markham ON L3P 4B3
Contact: Darren Coleman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Soil**							
Batch R4357988								
WG2936040-2 LCS								
Benzene			77.3		%		70-130	23-NOV-18
Toluene			87.3		%		70-130	23-NOV-18
Ethyl benzene			90.0		%		70-130	23-NOV-18
o-Xylene			102.2		%		70-130	23-NOV-18
m+p-Xylenes			106.4		%		70-130	23-NOV-18
WG2936040-3 LCS								
F1 (C6-C10)			96.3		%		70-130	23-NOV-18
WG2936040-1 MB								
Benzene			<0.0050		mg/kg		0.005	23-NOV-18
Toluene			<0.050		mg/kg		0.05	23-NOV-18
Ethyl benzene			<0.015		mg/kg		0.015	23-NOV-18
o-Xylene			<0.050		mg/kg		0.05	23-NOV-18
m+p-Xylenes			<0.050		mg/kg		0.05	23-NOV-18
F1 (C6-C10)			<10		mg/kg		10	23-NOV-18
Surrogate: 4-Bromofluorobenzene (SS)			72.4		%		70-130	23-NOV-18
F2-F4-TMB-FID-WP	**Soil**							
Batch R4345889								
WG2935608-2 LCS								
F2 (C10-C16)			102.9		%		70-130	21-NOV-18
F3 (C16-C34)			86.9		%		70-130	21-NOV-18
F4 (C34-C50)			103.9		%		70-130	21-NOV-18
WG2935608-1 MB								
F2 (C10-C16)			<25		mg/kg		25	21-NOV-18
F3 (C16-C34)			<50		mg/kg		50	21-NOV-18
F4 (C34-C50)			<50		mg/kg		50	21-NOV-18
Surrogate: 2-Bromobenzotrifluoride			97.7		%		60-140	21-NOV-18
Batch R4355970								
WG2936796-3 DUP		**L2198549-4**						
F2 (C10-C16)		4010	4690		mg/kg	16	40	23-NOV-18
F3 (C16-C34)		3080	3730		mg/kg	19	40	23-NOV-18
F4 (C34-C50)		102	62	J	mg/kg	40	100	23-NOV-18
WG2936796-2 LCS								
F2 (C10-C16)			115.2		%		70-130	23-NOV-18
F3 (C16-C34)			112.2		%		70-130	23-NOV-18
F4 (C34-C50)			108.2		%		70-130	23-NOV-18

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-TMB-FID-WP	**Soil**							
Batch R4355970								
WG2936796-1 MB								
F2 (C10-C16)			<25		mg/kg		25	23-NOV-18
F3 (C16-C34)			<50		mg/kg		50	23-NOV-18
F4 (C34-C50)			<50		mg/kg		50	23-NOV-18
Surrogate: 2-Bromobenzotrifluoride			98.7		%		60-140	23-NOV-18
Batch R4364119								
WG2938906-10 LCS								
F2 (C10-C16)			101.6		%		70-130	25-NOV-18
F3 (C16-C34)			99.0		%		70-130	25-NOV-18
F4 (C34-C50)			92.2		%		70-130	25-NOV-18
WG2938906-9 MB								
F2 (C10-C16)			<25		mg/kg		25	25-NOV-18
F3 (C16-C34)			<50		mg/kg		50	25-NOV-18
F4 (C34-C50)			<50		mg/kg		50	25-NOV-18
Surrogate: 2-Bromobenzotrifluoride			115.9		%		60-140	25-NOV-18
F4G-TMB-WP	**Soil**							
Batch R4356995								
WG2937921-2 LCS								
F4G-SG			101.8		%		80-120	24-NOV-18
WG2937921-1 MB								
F4G-SG			<500		mg/kg		500	24-NOV-18
Batch R4364587								
WG2940113-2 LCS								
F4G-SG			99.0		%		80-120	28-NOV-18
WG2940113-1 MB								
F4G-SG			<500		mg/kg		500	28-NOV-18
MOISTURE-WP	**Soil**							
Batch R4347730								
WG2934711-6 DUP		**L2198549-12**						
Moisture		8.27	7.55		%	9.1	20	20-NOV-18
WG2934711-2 LCS								
Moisture			100.2		%		90-110	20-NOV-18
WG2934711-5 LCS								
Moisture			100.2		%		90-110	20-NOV-18
WG2934711-1 MB								
Moisture			<0.10		%		0.1	20-NOV-18
WG2934711-4 MB								

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WP	**Soil**							
Batch R4347730								
WG2934711-4 MB								
Moisture			<0.10		%		0.1	20-NOV-18
PH-1:2 CACL2-WP	**Soil**							
Batch R4356156								
WG2937081-1 IRM		**SRS-1704**						
pH (1:2 CaCl2)			5.45		pH		5.43-6.03	22-NOV-18

Quality Control Report

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

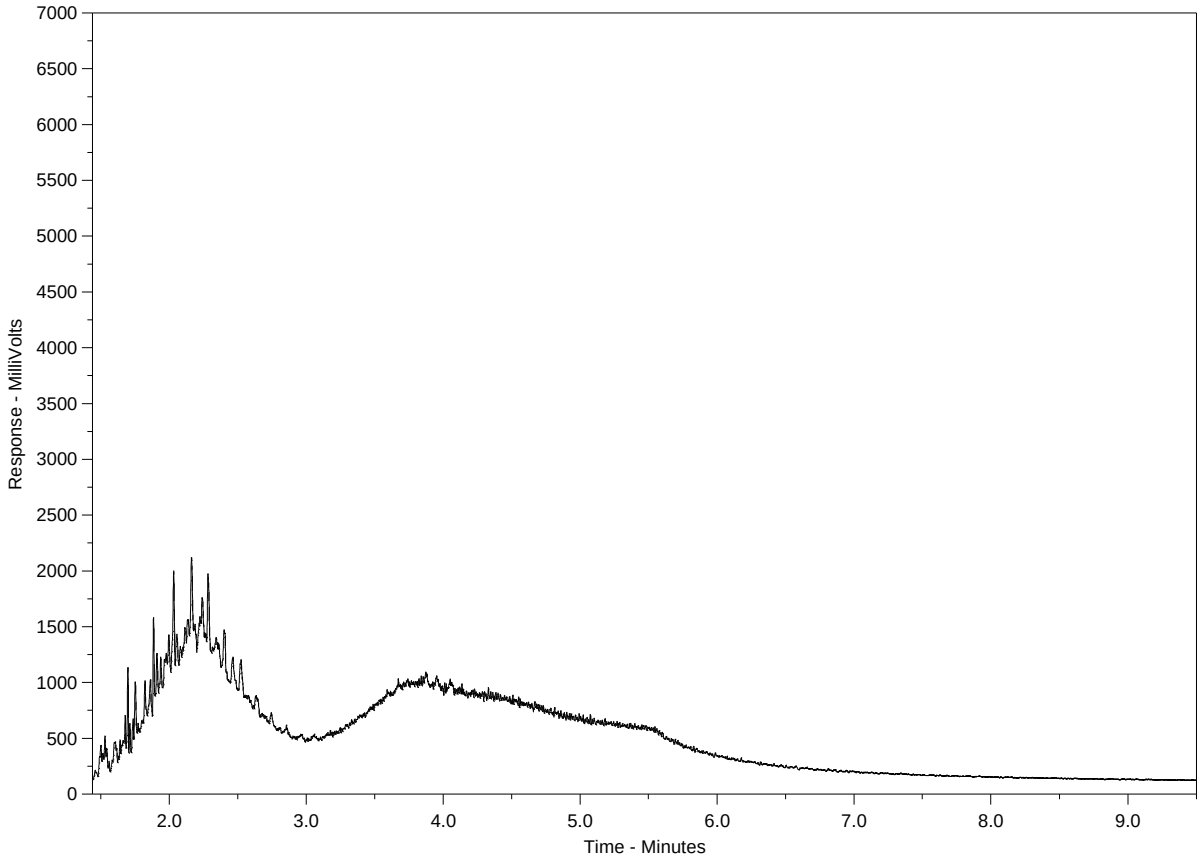
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

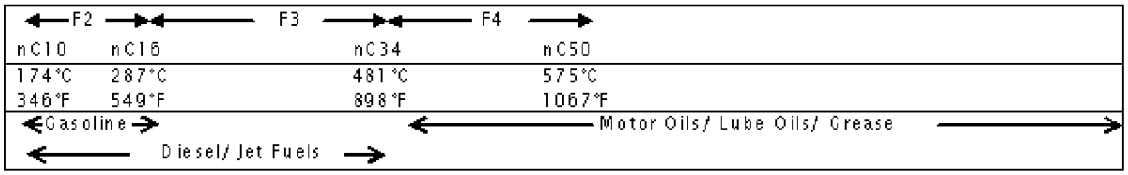
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-1
Client Sample ID: 64,144,1





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

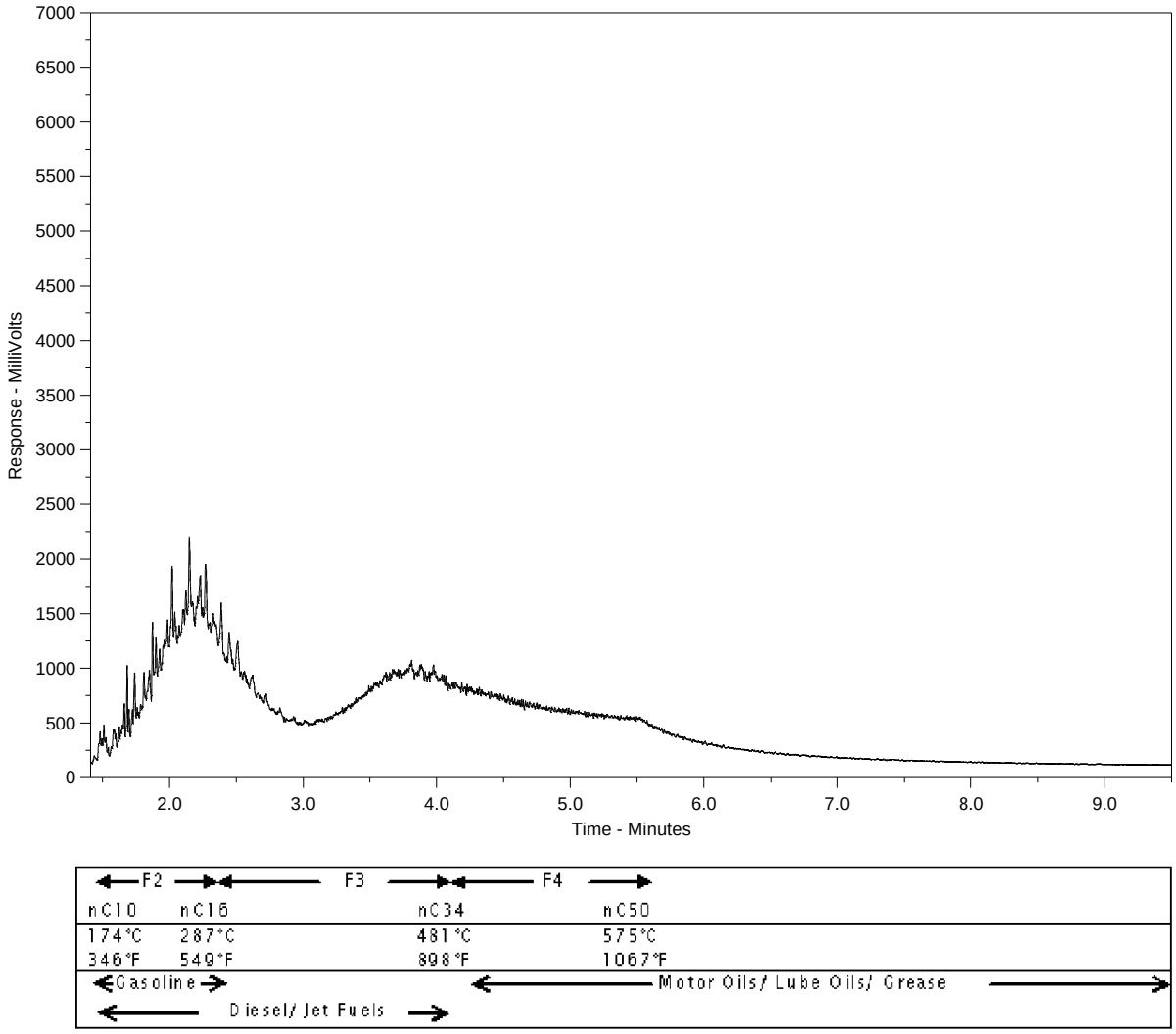
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-2
Client Sample ID: 64,134,1



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

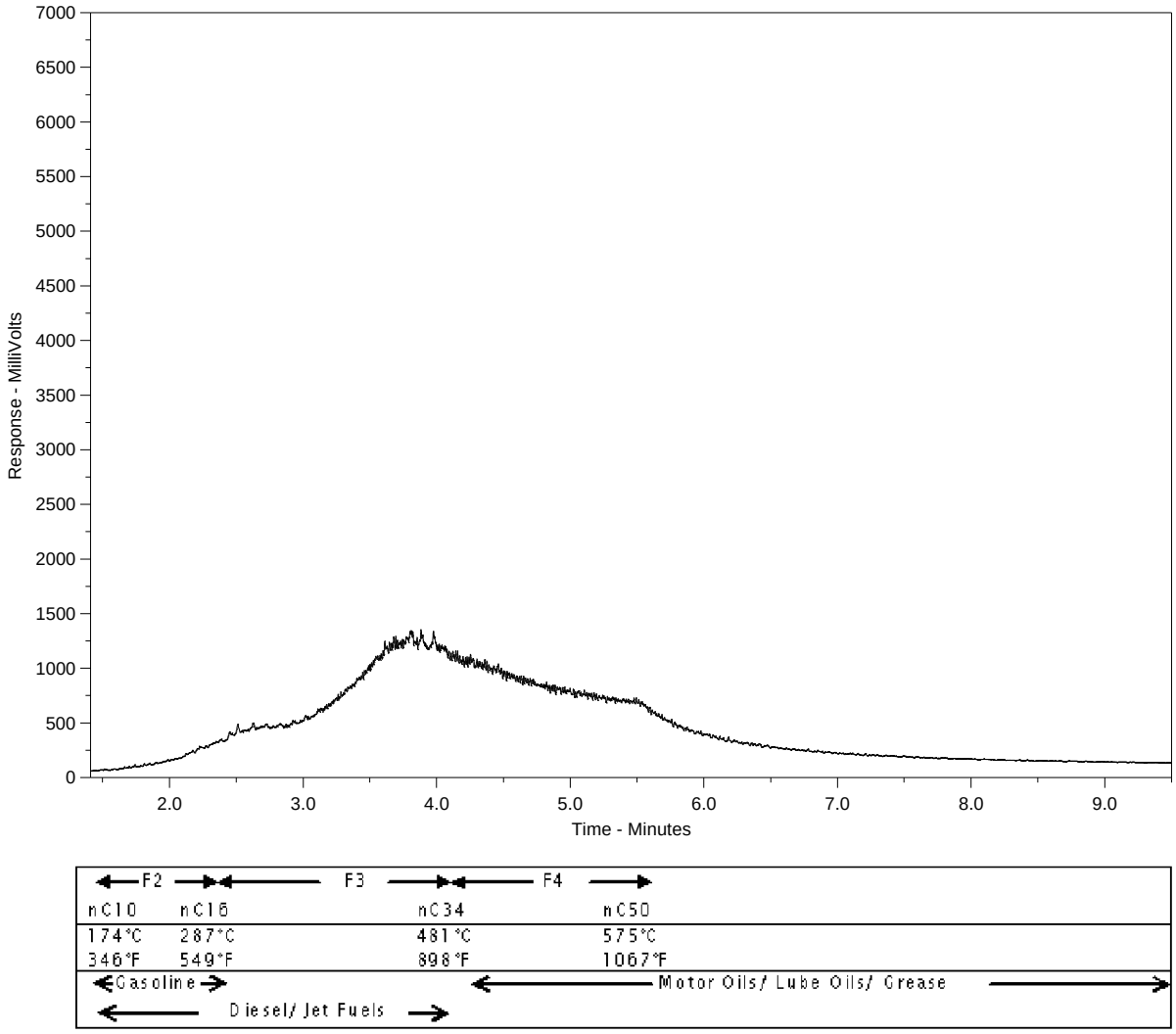
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-3
Client Sample ID: 64,154,1



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

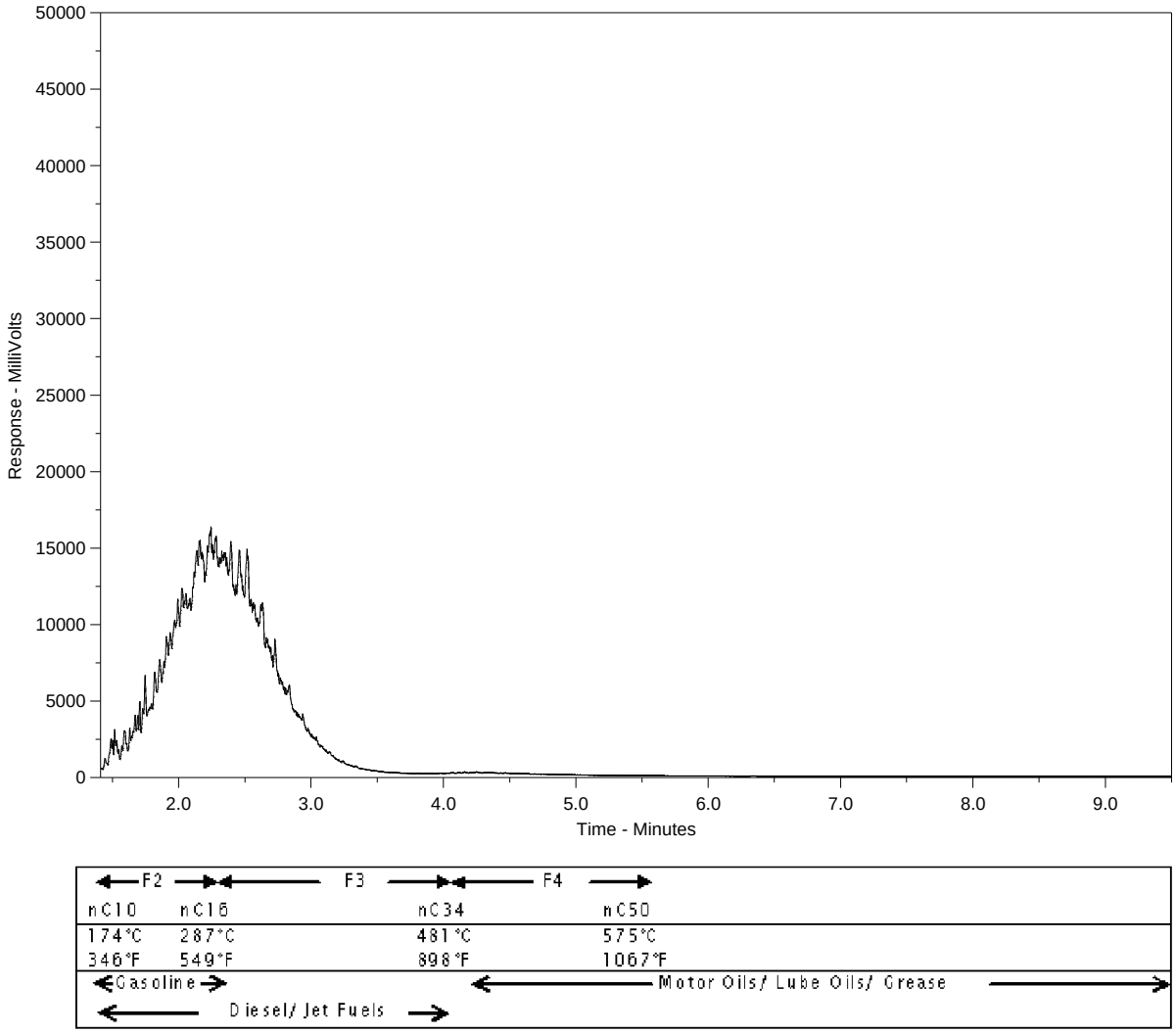
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-4
Client Sample ID: 64,149,1



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

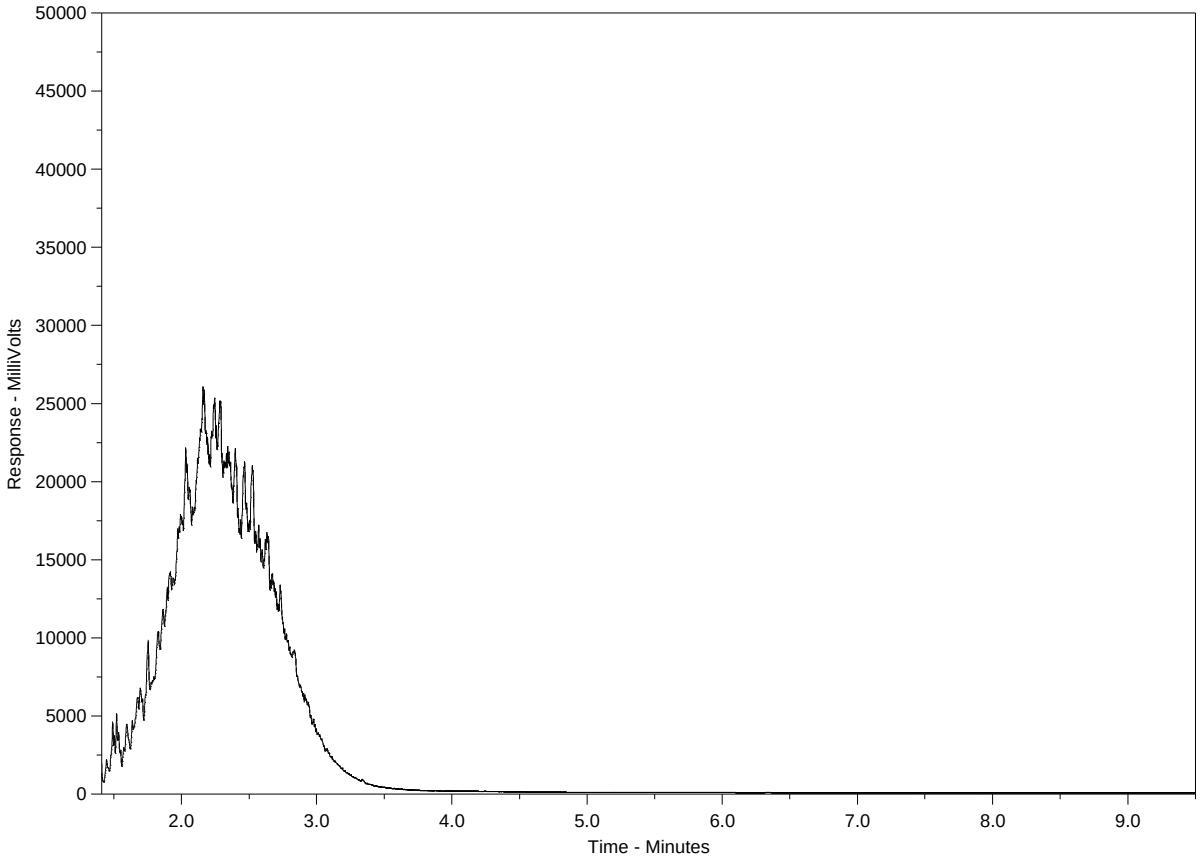
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

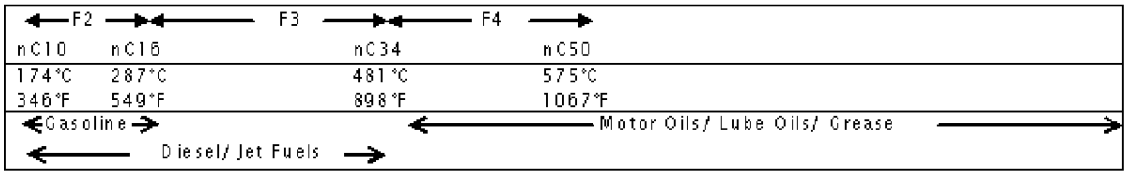
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-5
Client Sample ID: 64,139,1.5





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

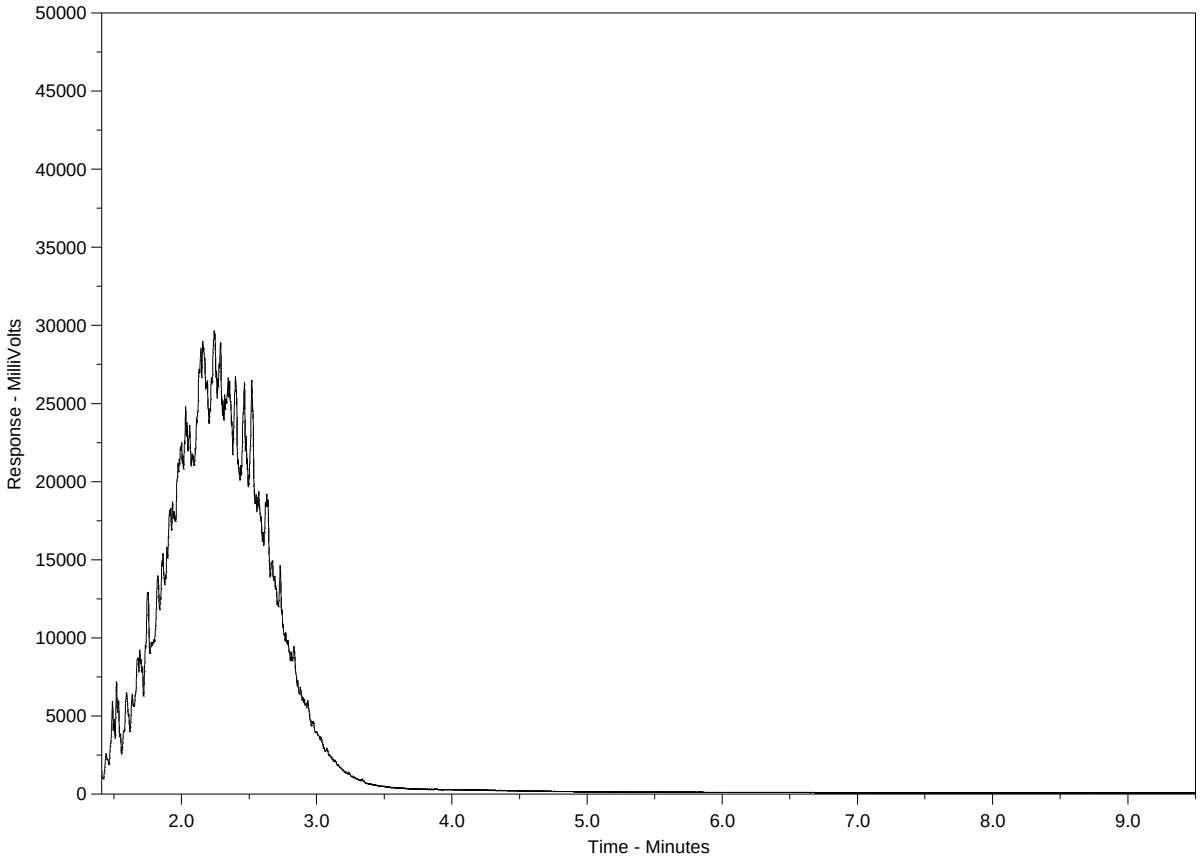
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

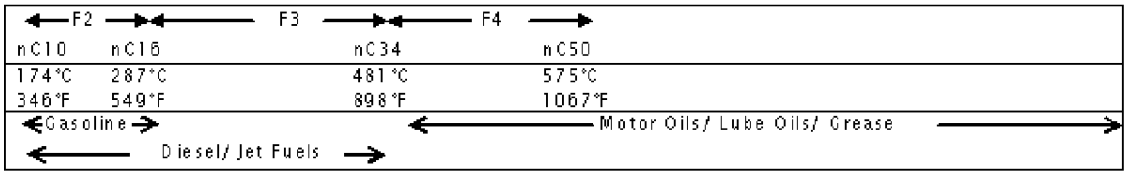
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-6
Client Sample ID: 74,134,1





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

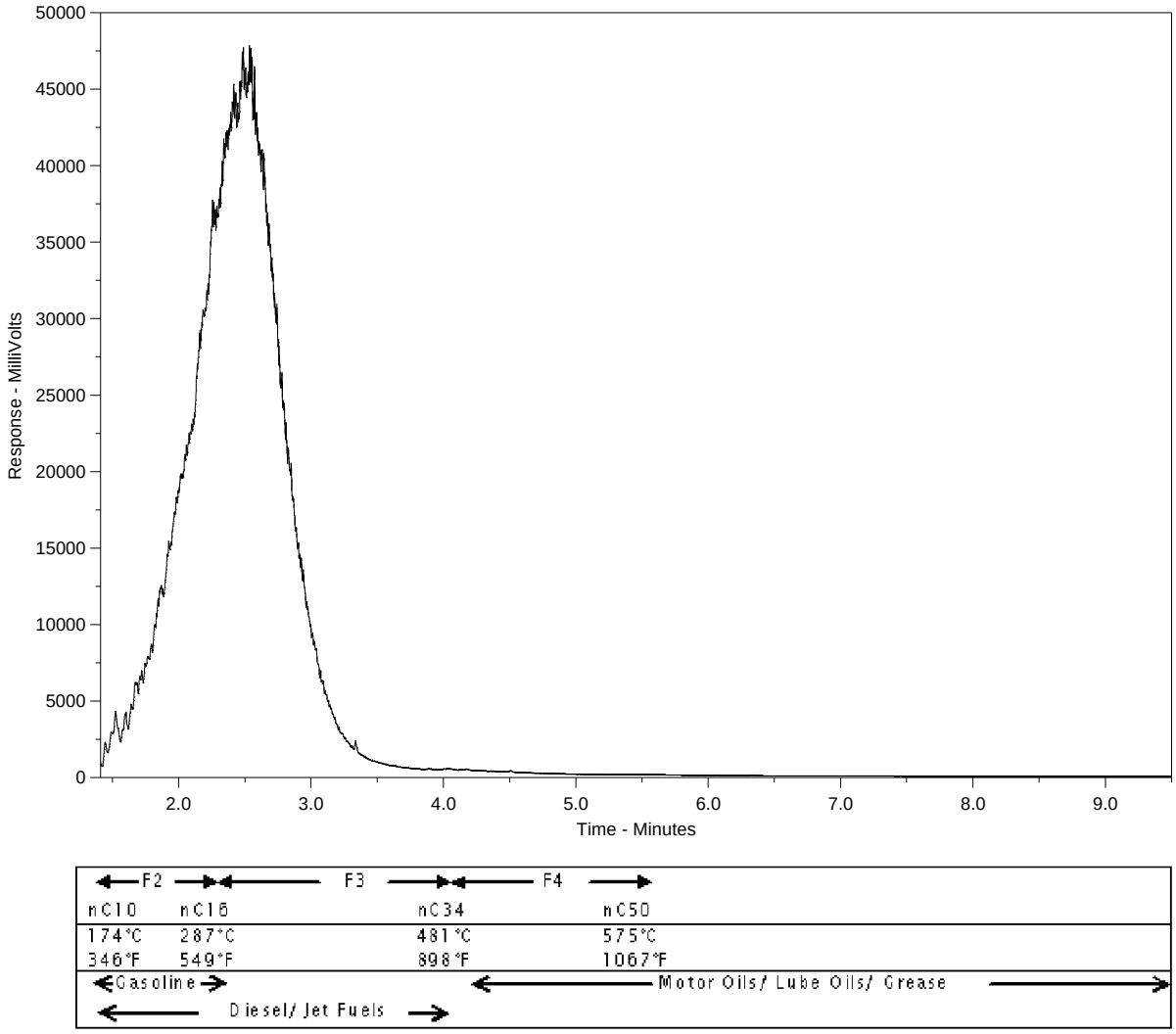
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-7
Client Sample ID: 74,144,1



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

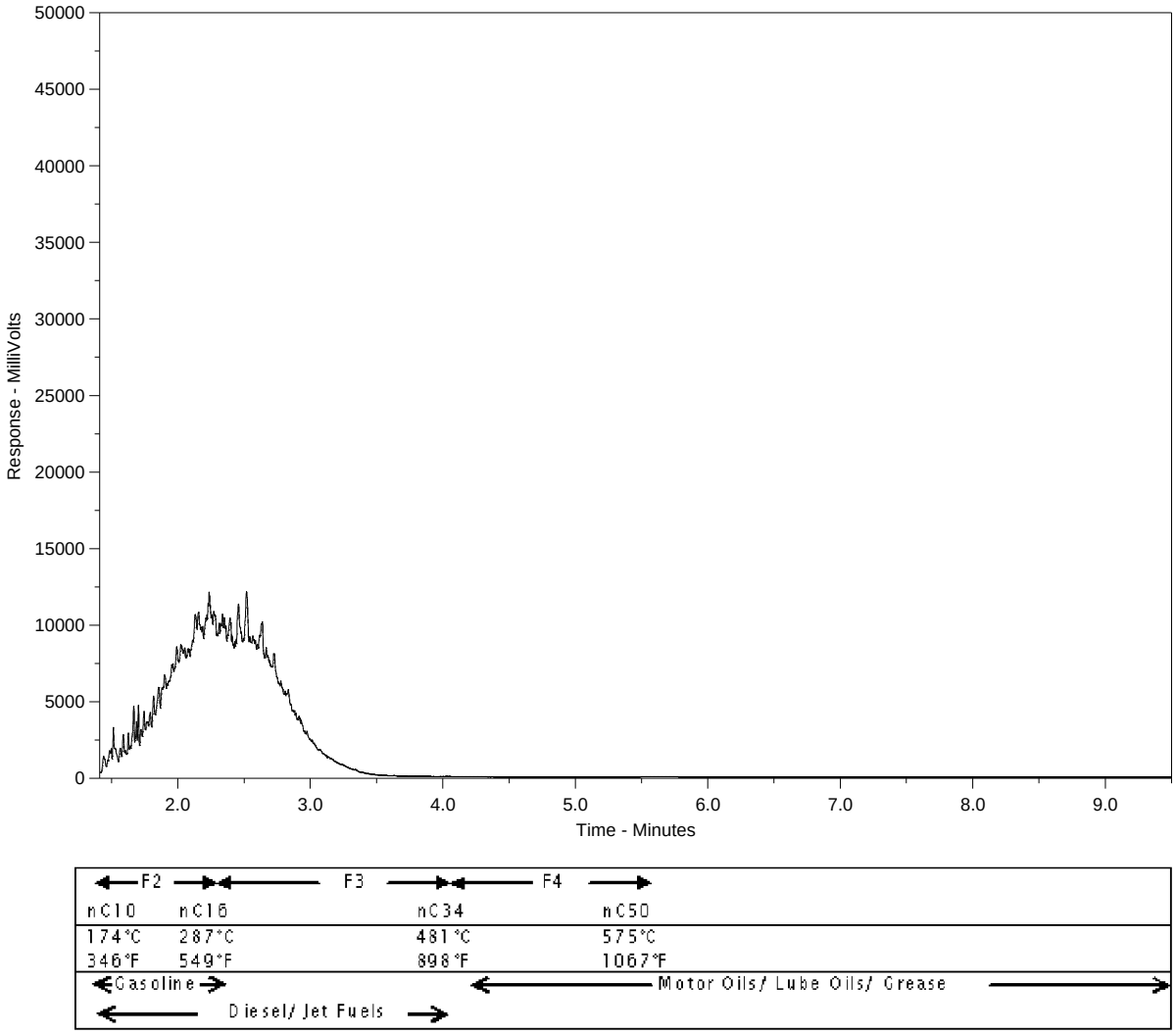
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-8
Client Sample ID: 84,134,1



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

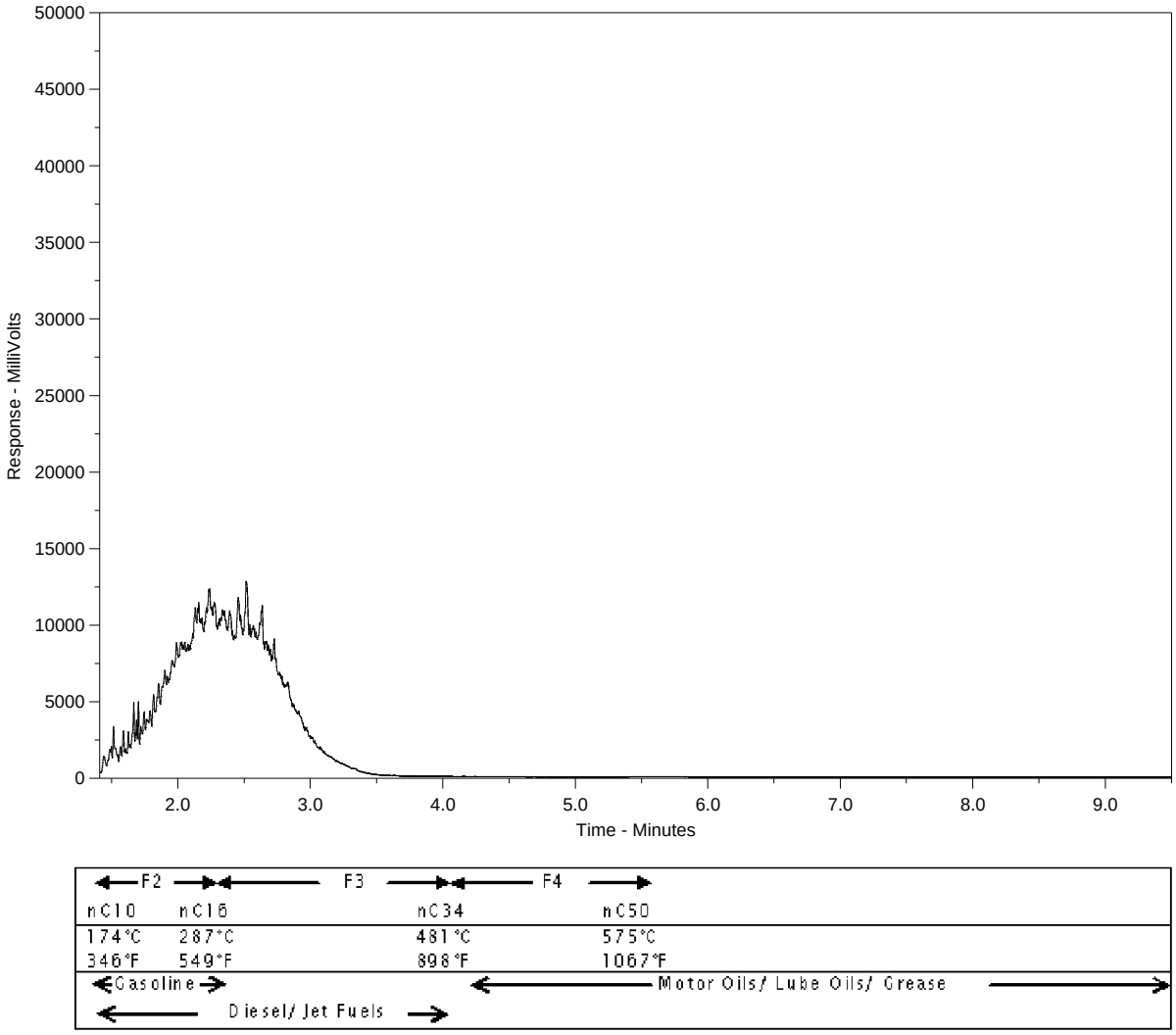
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-9
Client Sample ID: DUP-51



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

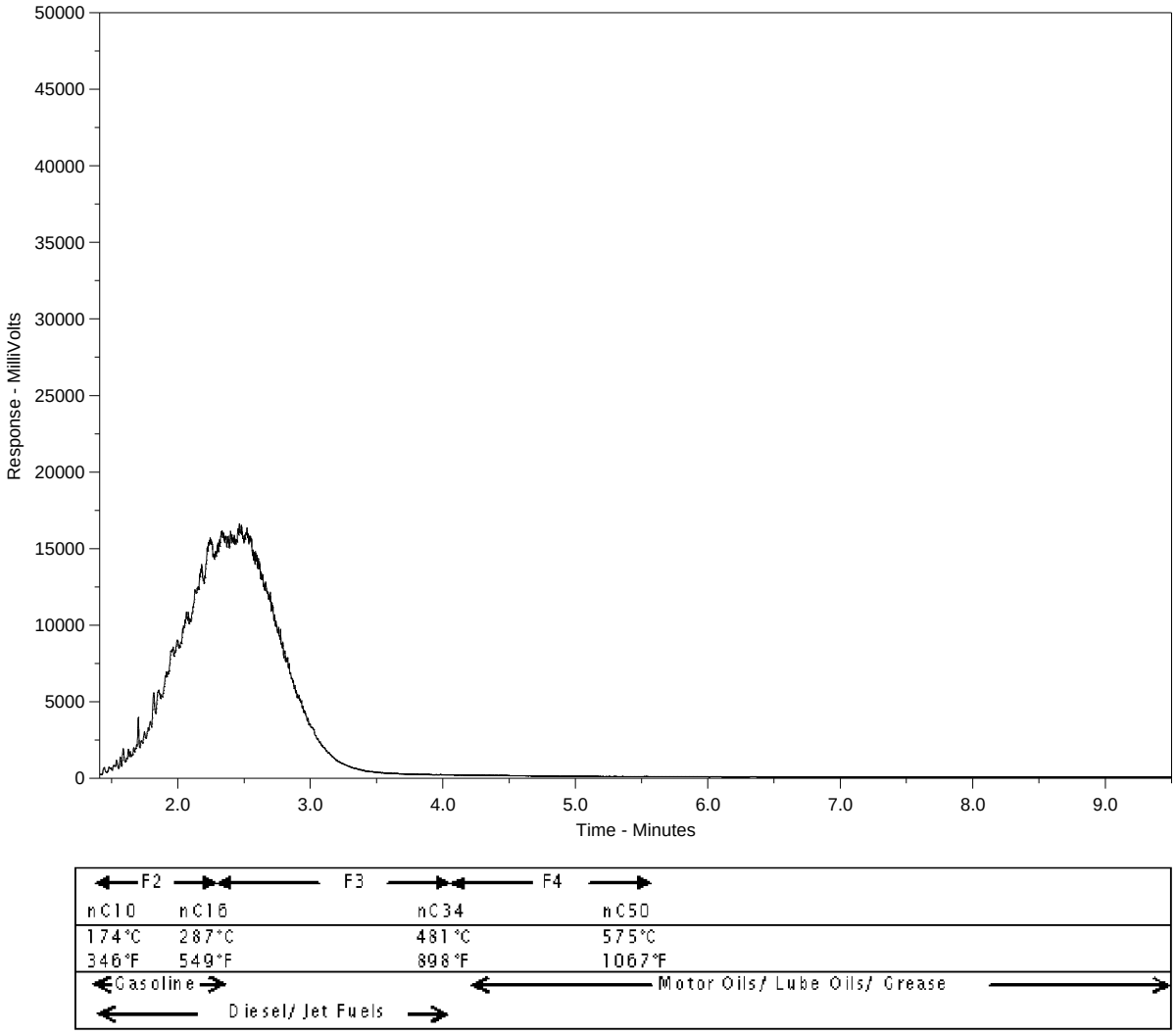
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-10
Client Sample ID: 74,154,1.5



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

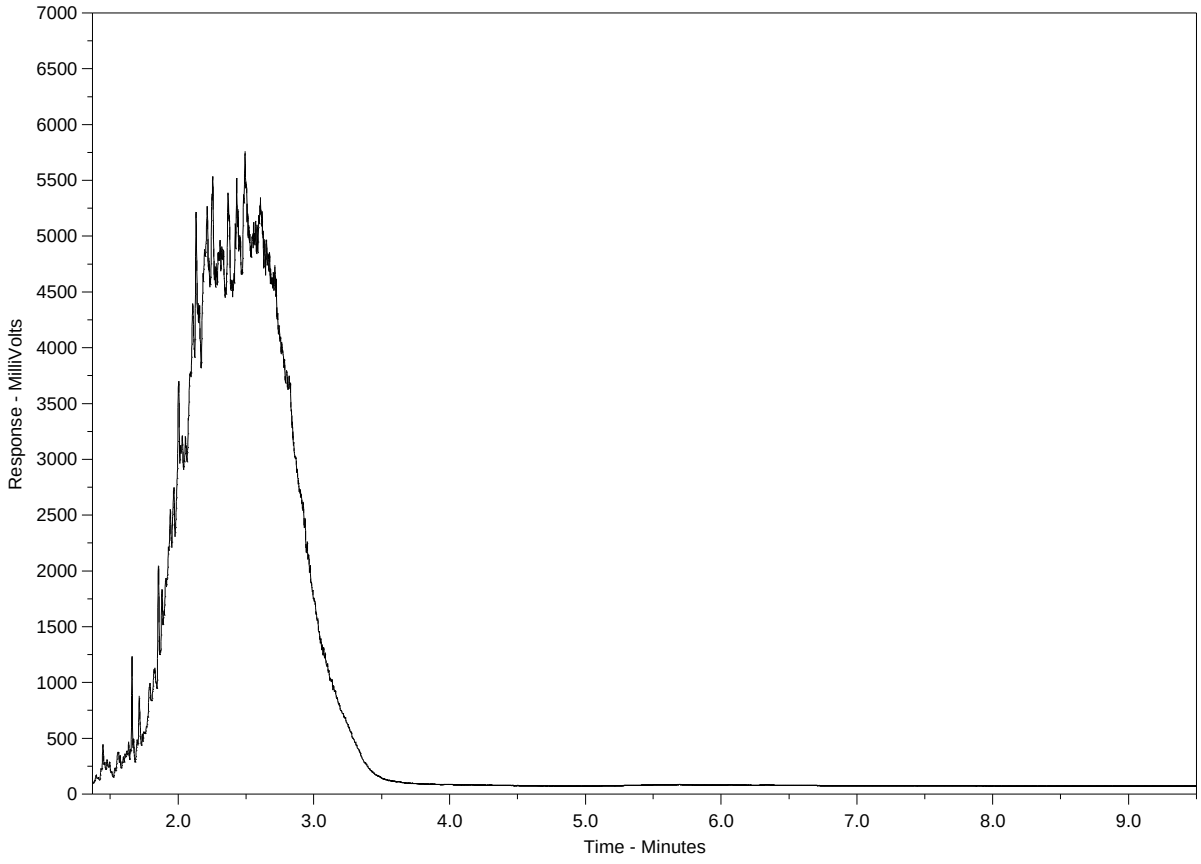
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

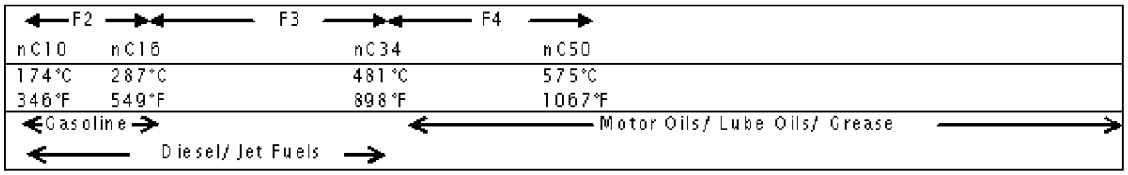
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-11
Client Sample ID: 84,144,1.5





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

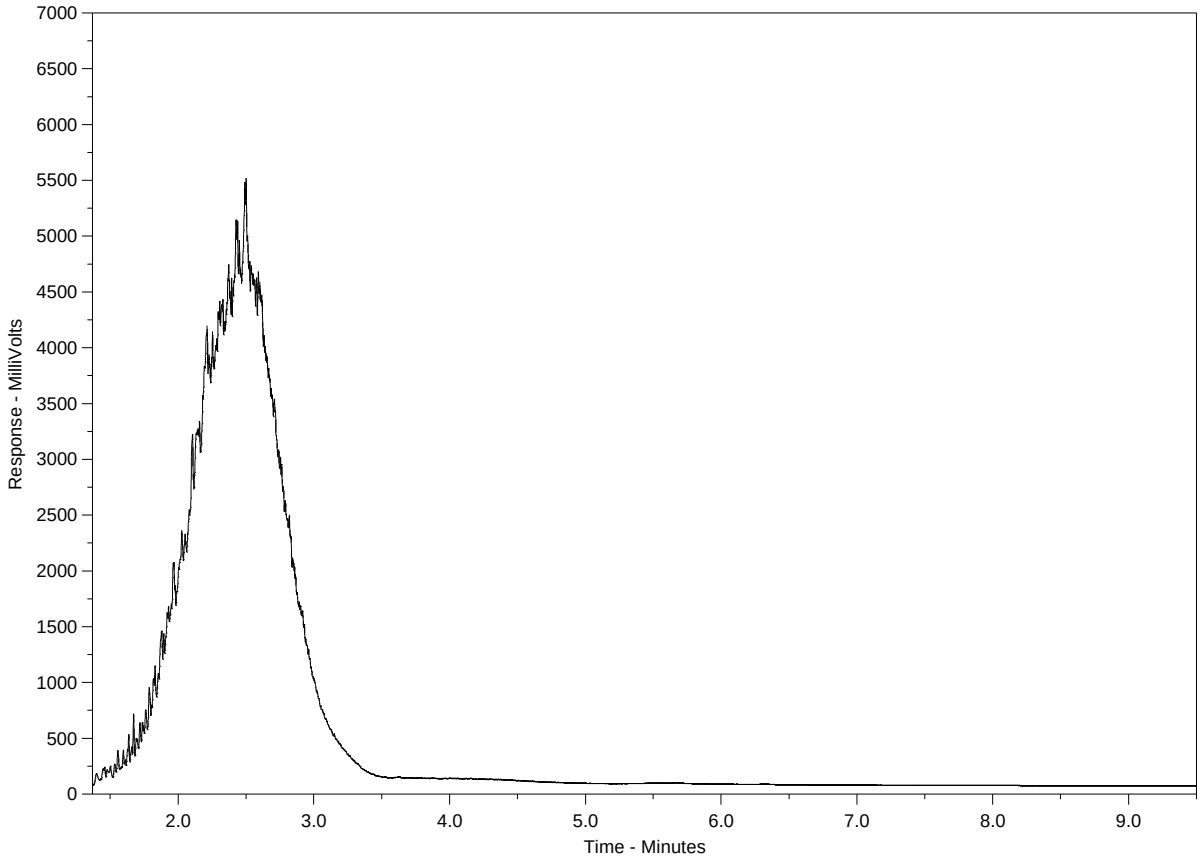
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

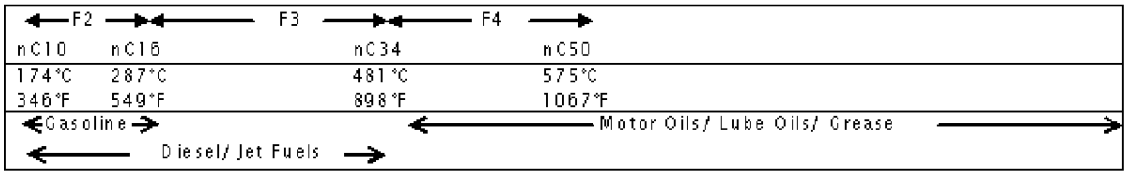
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-12
Client Sample ID: 84,154,1.5





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

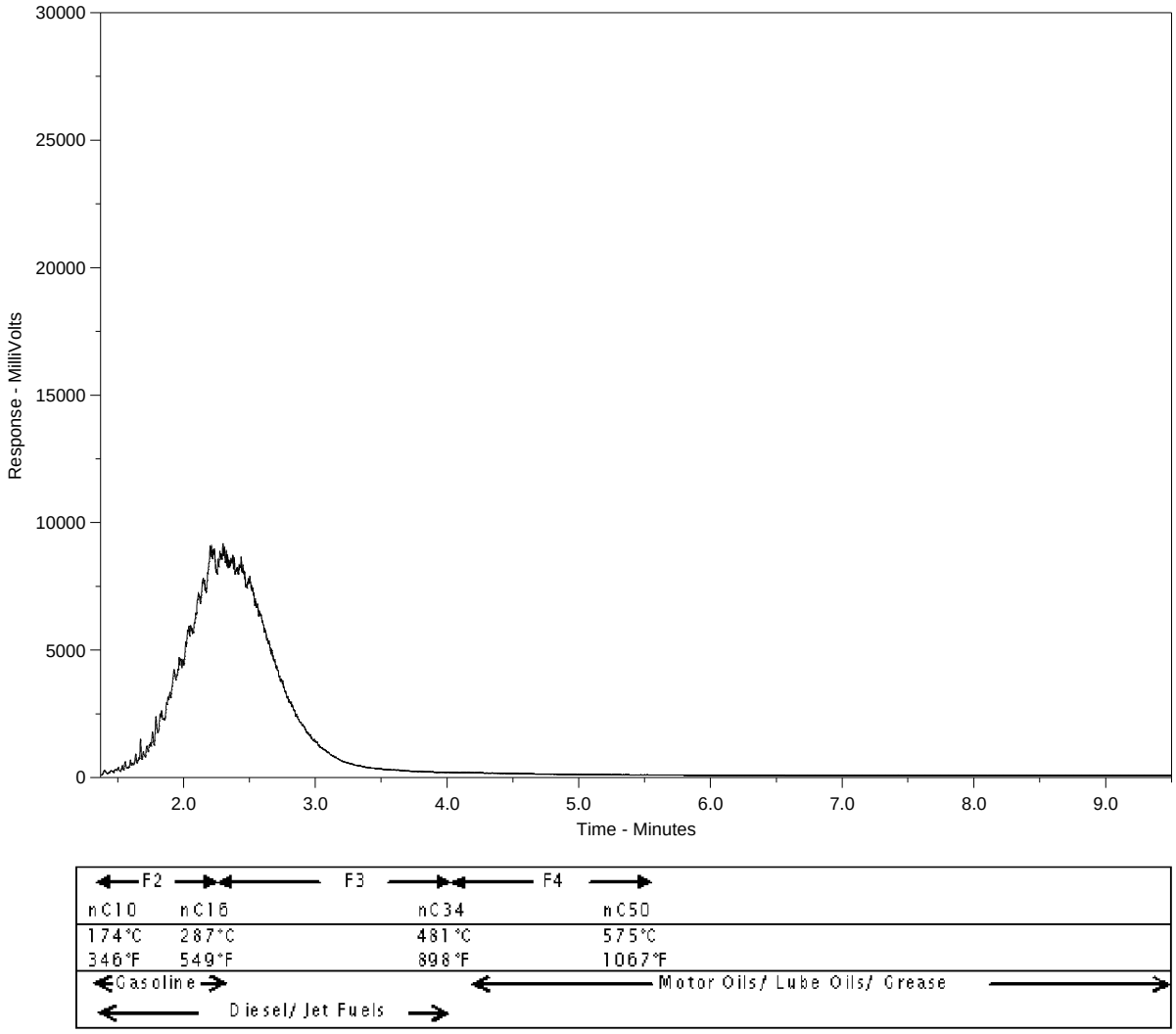
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-13
Client Sample ID: 94,149,1.5



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

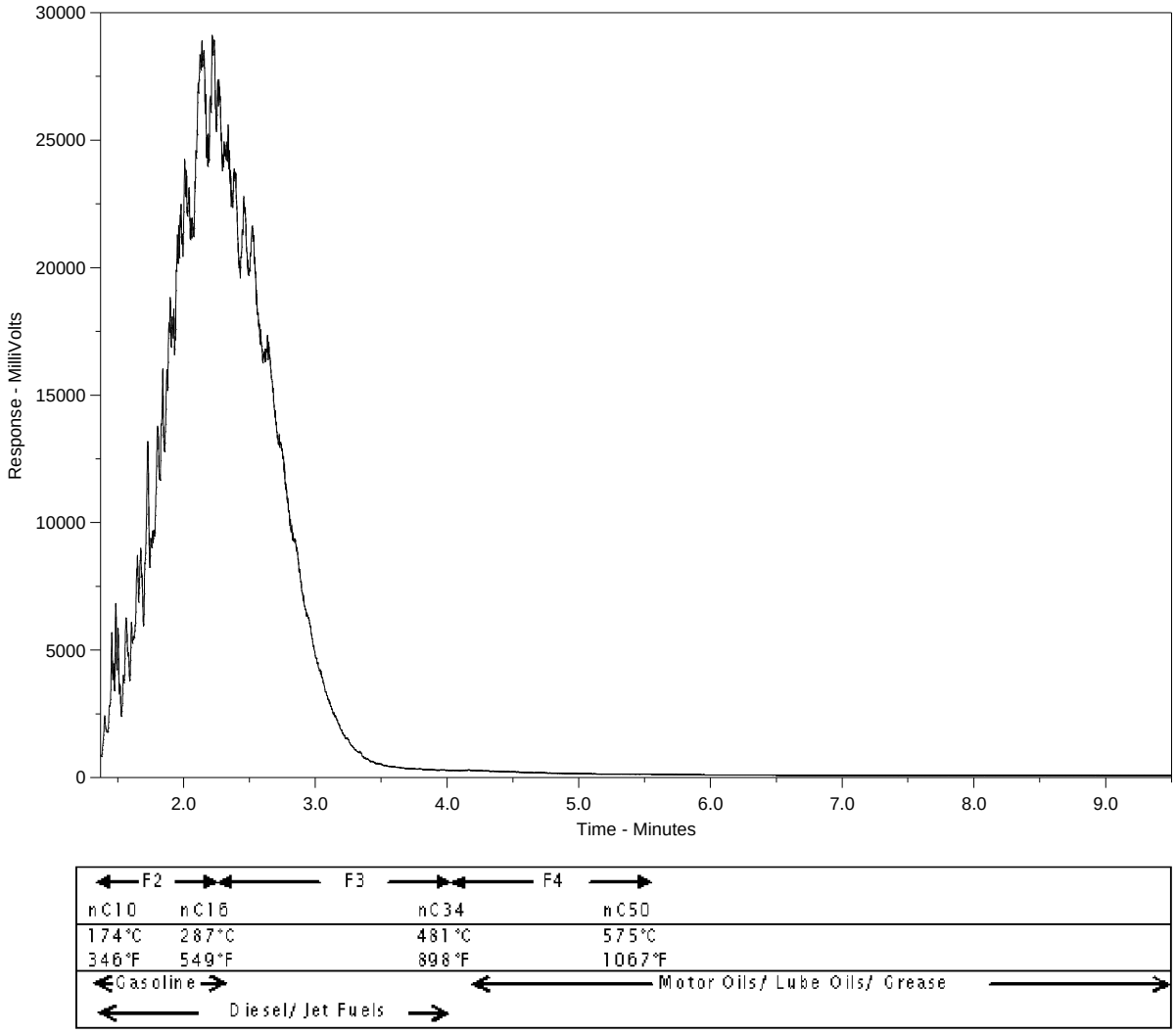
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2198549-14
Client Sample ID: DUP-S2



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2198549-COFC

COC Number: 17 - 673634 L2198549

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Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Colestar Env. Inc.	Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)	Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Darren Coleman	Quality Control (QC) Report with Report ☒ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	905-554-4156	☐ Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E-100%] ☐ / Same Day, Weekend or Statutory holiday [E2-200%] (Laboratory opening fees may apply) ☐
	Company address below will appear on the final report	Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
Street:	178 Fincham Ave	Email 1 or Fax	For tests that can not be performed according to the service level selected, you will be contacted.
City/Province:	Markham, Ont.	Email 2	
Postal Code:	L3P 4B3	Email 3 dcoleman@colestarenvironmental.com	Analysis Request
Invoice To	Same as Report To ☒ YES ☐ NO	**Invoice Distribution**	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☒ EMAIL ☐ MAIL ☐ FAX	
Company:		Email 1 or Fax	
Contact:		Email 2 Same as above.	

Project Information	Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	AFE/Cost Center:	PO#
Job #: 0301-01	Major/Minor Code:	Routing Code:
PO / AFE:	Requisitioner:	
LSD:	Location:	
ALS Lab Work Order # (lab use only):	ALS Contact: Mary-Lynn Pike	Sampler: Carl Frankruyter

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BTEX/F1	F2-F4	PH	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	✓ 64,144,1	Nov 16/18		Soil	X	X				3
	~~64,144,2~~ 64,134,1				[redacted]	X	X			[redacted]
	~~64,144,3~~ 64,154,1				[redacted]	X				[redacted]
	✓ 69,149,1				[redacted]	X				[redacted]
	~~69,139,1~~ 69,139,1.5				[redacted]	X				[redacted]
	~~74,134,2~~ 74,134,1				[redacted]	X				[redacted]
	✓ 74,144,1				X	X				3
	✓ 84,134,1				X	X				3
	✓ DUP-S1					X				1
	74,154,1.5					X				1
	84,144,1.5					X				1
	84,154,1					X				1

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	
Are samples for human consumption/ use? ☐ YES ☐ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
-5.6	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: Nov 19/18	Time:	Received by: MH	Date: 18-11-19	Time: 5:20	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JULY 2017 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2198549-COFC

COC Number: 17 - 673635 L2198549

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Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Turnaround Time (TAT) Requested - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Colestar	Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)	Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Darren Coleman	Quality Control (QC) Report with Report ☒ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐
Phone:	905-554-4156	☐ Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E-100%] ☐ / Same Day, Weekend or Statutory holiday [E2-200% (Laboratory opening fees may apply)] ☐
	Company address below will appear on the final report	Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX	
Street:	178 Finchan Ave	Email 1 or Fax	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Markham, Ont.	Email 2	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	L3P 4B3	Email 3 dcoleman@colestarenvironmental.com	Analysis Request
Invoice To	Same as Report To ☒ YES ☐ NO	Invoice Distribution	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☒ EMAIL ☐ MAIL ☐ FAX	
Company:		Email 1 or Fax	
Contact:		Email 2 Same as above	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	0301-01	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Mary-Lynn Pike	Sampler: Carl Frankruyter

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	F2-F4	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
	94,149,1.5	Nov 16/18		Soil	X			1
	Dup-52	↓		↓	X			1

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	
Are samples for human consumption/ use? ☐ YES ☐ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
-5.6	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: MH	Date: 19-11-18	Time: 3:20	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JULY 2017 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form.**

APPENDIX B
MAY 2019 PHASE II ENVIRONMENTAL SITE ASSESSMENT

PHASE II ENVIRONMENTAL SITE ASSESSMENT

Greyhound Lines, Inc. #700031
Bus Terminal and Maintenance Facility
81 Berens Road
Thompson, Manitoba R8N 1X3

Prepared for:

FirstGroup America, Inc.
600 Vine Street, Suite 1400
Cincinnati, Ohio 45202

On Behalf of:

Greyhound Lines, Inc.
350 North St. Paul Street
Dallas, Texas 75201

Prepared by:

Strata Environmental Services, Inc.
110 Perimeter Park Road, Suite E
Knoxville, Tennessee 37922

May 2019

Strata ENVIRONMENTAL

TABLE OF CONTENTS

SECTION 1 INTRODUCTION

This report documents the Phase II Environmental Site Assessment (ESA) of Greyhound Lines, Inc. (Greyhound) bus terminal and maintenance facility at 81 Berens Road, Thompson, Manitoba (Property) (See Figure 1.). Greyhound owns the Property, which is occupied by a bus garage and formerly occupied by fueling facilities. Greyhound contracted Strata Environmental Services, Inc. (Strata) to conduct the Phase II ESA activities under proposal 2019-023 in accordance with Strata's Quality Assurance Manual for Geological/Hydrogeological Services.

1.1 Purpose/Objectives

The purpose of this Phase II ESA is to obtain additional information to potentially gain a higher degree of certainty about the potential sources of contamination the Property identified in the August 2018 Strata Phase I ESA (Strata 2018a) and the December 2018 Surface Soil Assessment of the former aboveground diesel depot (Strata 2018b).

The Phase I ESA identified the following potential sources of contamination in connection with the Property:

- The Property is listed on the Manitoba Sustainable Development (MSD), Environmental Programs and Strategies Branch Contaminated/Impacted Sites Program Contaminated Sites List (CS) in connection with releases discovered during the removal of five underground storage tanks (USTs) in November 1992. The USTs were owned and operated by Hiway Esso and were located in the southwest quadrant of the Property. The UST removal reportedly included the excavation and off-site disposal of approximately 900 tonnes of petroleum-impacted soil. Post-excavation soil sample analyses for gasoline range organics demonstrated the initial soil clean-up to be within Manitoba-recommended soil guideline levels at that time. However, because the analytical parameters used to assess the release were limited, the closure records are unclear and difficult to interpret, and MSD does not appear to have closed the project due to open/unresolved issues, past releases from the fueling station that previously occupied the Property remain a potential source of contamination at the Property.
- Greyhound/Grey Goose Bus Lines activities at the Property have included vehicle maintenance/repair, washing, and fueling via two former fuel depots, and the operation of an in-ground hydraulic hoist and below ground wastewater drainage system (floor drains, grit traps, piping), which are potential sources for releases of petroleum and hazardous substances to soil and groundwater at the Property. Seven reported spills at the Property (six at the fueling area) dating back to 1996, as well as MSD- and Strata-recorded observations of poor housekeeping at the fueling area indicate potential sources of contamination for soil and groundwater at the Property.
- Two off-site fueling facilities operate across Berens Road to the northwest (upgradient) of the Property. One of the fuelling facilities operated by Shell Canada is listed on the MSD Contaminated Sites List.

Strata reassessed laboratory results from the Surface Soil Quality Assessment conducted in the area of the former diesel AST at the Property against the Property-specific site assessment criteria developed in this assessment. The reassessment results are provided in Appendix A.

SECTION 2 BACKGROUND

2.1 Property Location and Use

The Property is located in a light industrial area within the limits of the City of Thompson, Manitoba. The approximately 0.8-hectare (2-acre) property is developed with a 1,582 m^2 (17,029 ft^2) bus maintenance garage, including a high-bay maintenance area, drive-through wash bay, in-ground hydraulic hoist, drum storage area, material storage areas, offices, courier depot, passenger waiting area, and vacant former restaurant space. The garage is equipped with floor drains linked by underground piping to the municipal sewer system. The remainder of the Property is generally sand- and gravel-covered.

Two former fuel depots operated at the Property:

a) A diesel fuel depot composed of an AST linked by aboveground product piping to a fuel dispenser on the west side of the Property. The AST was removed from the Property in 2018, and

b) A former Hiway Esso fuel depot composed of five underground storage tanks (linked by underground product piping to fuel dispensers in the south-central section of the Property. The station is listed on the MSD Contaminated Sites List in connection with releases discovered during the 1992 removal of the USTs.

2.2 Property Setting

Topography and Drainage

Local topography generally grades southeast toward streams and wetlands that surround the Vale nickel mining, smelting, and refining plant approximately 0.7 km (0.43 mile) east of the Property. The water surface elevation of the wetlands is approximately 196 metres above sea level (masl). The Property grade is relatively flat with an approximate elevation of about 210 masl. Drainage from the gravel- and asphalt-paved area sheet flows generally away from the building toward Berens Road along the north and west boundaries and a drainage ditch within the highway right-of-way along the east property boundary.

Geology and Hydrogeology

According to the 2004 Manitoba Geological Society Surficial Geology map (MGS 2004), the unconsolidated geology in the region that includes Thompson and the Property is composed of clay and/or silt with some minor sand deposits. Based on topography, inferred groundwater flow at the Property is southeast.

SECTION 3 METHODS

This Phase II ESA was carried out in accordance with the requirements in the Strata March 15, 2019, Proposal for Subsurface Investigation (2019-023) and in accordance with Strata's Quality Assurance Manual for Geological/Hydrogeological Services.

3.1 Health and Safety

Before commencing Phase II ESA activities, Strata developed a site-specific health and safety plan (HSP) that applied to all personnel working for, or under the direction of, Strata during the execution of the investigation. The HSP identified and provided mitigation measures for anticipated physical and chemical hazards associated with the work and included an emergency contact list, hospital route map, and protocols to follow in the event of an emergency.

3.2 Utility Locates and Clearances

Before intrusive investigations, the Manitoba Common Ground Alliance (MCGA) was contacted. MCGA completed utility locates for public utilities servicing the Property. Additionally, Structure Scan Inc. was contracted to mark private underground utilities at each boring location.

3.3 Soil Sampling

On April 9, 10, and 11, 2019, Maple Leaf Drilling Ltd. (Maple Leaf) advanced 12 soil borings at the Property, using a Geoprobe® 7822 direct push rig under the direction of Strata. The locations of the soil borings are shown on Figure 2. Soil samples were collected from each boring, using a direct push macro core lined with an acetate sleeve. Each sampler was decontaminated, using Liquinox™ detergent wash and distilled water rinse between soil borings. Strata placed the soil borings near potential on-site contaminant sources and along property boundaries in the direction of potential off-site contaminant sources to allow assessment of soil and groundwater quality. The borings were advanced to intercept the shallow groundwater unit and extended to depths ranging from 15 and 25 ft bgs.

Strata collected soil samples from each boring for textural classification, visual and olfactory inspection for anthropogenic impacts, and vapor concentration measurement. Samples subjected to vapor concentration measurement were placed in polyethylene bags with headspace. Vapor concentrations were measured in the bag headspace, using an RKI Eagle combustible gas detector calibrated against hexane and operated in methane elimination mode. Based on the sample inspection and vapor screening results, Strata selected at least one soil sample from each boring for laboratory analysis of the contaminants of potential concern (COPCs) associated with the contaminant sources. The COPCs analyzed included volatile organic compounds (VOCs); benzene, toluene, ethylbenzene and xylenes (BTEX); petroleum hydrocarbon (PHC) fractions 1 through 4 (F1 through F4); polycyclic aromatic hydrocarbons (PAHs); and/or metals. Additionally, soil samples from soil borings BH1 and BH9 were submitted for pH analysis. The boring details are depicted on the soil boring logs provided in Appendix B.

Strata collected two field soil duplicate samples (DUP-S1 and DUP-S2) for analysis of PHC F2 through F4 for quality assurance/quality control (QA/QC) purposes. The soil samples DUP-S1 and DUP-S2 were obtained from soil borings BH2 and BH9, respectively, and sent blind to the laboratory. Soil samples

collected for analysis were immediately placed in an ice-filled cooler and delivered to ALS Canada, Ltd. (ALS) in Winnipeg, Manitoba, under strict chain of custody.

3.4 Monitoring Well Installation

Strata installed permanent monitoring wells in four of the soil borings (BH1, BH7, BH9, and BH10) to facilitate groundwater sampling and assessment. Monitoring wells were constructed of 25-mm (1-in) diameter polyvinylchloride riser pipe and #10 machine slot screens (250 micrometer). The monitoring wells were installed to depths just below the surface of the shallow groundwater unit in accordance with Manitoba Ministry of Sustainable Development guidelines.

Strata surveyed the borings and monitoring wells for their horizontal positions relative to the on-site building footprint. Grade elevations were established for the monitoring wells, using a benchmark level. The datum for the survey was the top nut of the fire hydrant northwest of the building, across Berens Road. The datum was assigned an arbitrary elevation of 30.4785 m (100 ft). The survey data was used to define the boring and monitoring well locations.

3.5 Groundwater Sampling

Groundwater samples were collected from each monitoring well, using a peristaltic pump and new disposable tubing. Due to the observed slow recharge of groundwater, the wells were not purged before sampling. One groundwater sample from each monitoring well was collected for laboratory analysis of the following analytes:

- VOCs – BH7 and BH9
- BTEX/PHC F1 to F4 – BH1, BH7, BH9, and BH10
- Metals – BH7 and BH9

Groundwater samples collected for analysis were immediately placed in an ice-filled cooler and delivered via overnight courier to ALS under strict chain of custody. One groundwater field duplicate, denoted DUP-W1, was acquired from monitoring well BH7 for analysis of VOCs for QA/QC purposes.

3.6 Quality Assurance/Quality Control

The following QA/QC protocols were followed:

- Soil and groundwater samples were placed and packed in ice-filled coolers in a manner which prevented damage to the sample containers during transport to the laboratory;
- Samples were maintained at temperatures below 10 degrees centigrade to minimize degradation of organic contaminants;
- The laboratory used, ALS Canada, LTD, is accredited by the Canadian Association of Accredited Laboratories for the parameters analyzed in this assessment;
- Parameters analyzed, where applicable, were preserved according to laboratory specifications;
- New dedicated sampling equipment (i.e., down-hole tubing) was used at each well location for groundwater sampling;

- New nitrile sample gloves, discarded after use, were used at each sample location;
- Fluid level monitoring equipment was decontaminated before use and between monitoring locations;
- Soil sampling equipment was decontaminated before use and between drilling/sampling locations to prevent cross contamination; and
- Duplicate soil and groundwater samples were collected and analyzed.

3.7 Property Assessment Criteria

Environmental site assessment and remediation in Manitoba is governed by the requirements of The Contaminated Sites Remediation Act (Act) (Manitoba 2017). The Act is administered by MSD through various guidelines and procedures developed to direct proponents on the required approaches to site assessment, classification, and remediation in Manitoba. MSD considers the soil and water numerical guidelines developed for various land uses by the Canadian Council of Ministers of the Environment (CCME) applicable to sites in Manitoba and permits, in the absence of CCME guidelines for a particular parameter, the adoption of numerical guidelines or standards applied in Ontario and/or Alberta. The following CCME Environmental Quality Guidelines are applicable to sites in Manitoba:

- Canadian Soil Quality Guidelines for the Protection of Environmental and Human Health (CCME 2019a);
- Canada-Wide Standard for Petroleum Hydrocarbons (PHC) in Soil (CCME 2008);
- Canadian Water Quality Guidelines for the Protection of Aquatic Life (CCME 2019b);
- Guidelines for Canadian Drinking Water Quality (Canada 2019); and
- Canadian Water Quality Guidelines for the Protection of Agricultural Water Uses (CCME 2019c).

In this assessment, the drinking water (DW) pathway, freshwater aquatic life (FAL) pathway, agricultural irrigation (IR), and livestock water (LW) pathway are excluded. The DW pathway is excluded because a municipal water supply system that acquires raw water from a surface water body (Burntwood River) supplies the Property and Thompson residents with potable water. Further, groundwater yield (<0.5 L/min) in the subsurface formation targeted in this assessment is too low to support domestic groundwater use (all monitoring wells were generally pumped dry at a pumping rate of 0.5 L/min). The FAL pathway is excluded because shallow groundwater resides within a fine-grained matrix of clay, and there are no surface water bodies supporting aquatic life within 300 m of the Property. The IR and LW pathways are excluded because the Property resides within an urban area where groundwater is not used for agricultural purposes.

Strata used the most stringent CCME soil quality numerical guidelines for commercial sites with fine-grained soil, excluding the pathways defined above, in this assessment to evaluate soil quality. For parameters that have no CCME guideline, Strata adopted the Table 3 soil standards from the April 15, 2011, Ontario Ministry of the Environment (MOE) Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act (MOE 2011) for commercial sites with fine-grained soil and non-potable groundwater.

Strata used the MOE Table 3 Groundwater Standards and Alberta Tier 2 groundwater guidelines (Alberta 2019) (PHC fractions only) for sites with fine-grained soil and non-potable groundwater use in this assessment since the pathway exclusions negate the application of CCME water guidelines.

SECTION 4 FIELD OBSERVATIONS AND ANALYTICAL RESULTS

This section presents results of the Phase II ESA activities. Boring logs are presented in Appendix B, and laboratory analytical reports are provided in Appendix C.

4.1 Field Observations

Strata encountered between 1 and 11 feet of fill at the Property. The fill is composed of sand and gravel that is brown in color at all borings except those drilled within the building footprint. The fill below the floor slab in the soil borings (BH7, BH8, and BH9) consists of 3.5 to 4 ft of black medium-grained vitreous sand. The underlying native silty clay to clay unit is brown in the upper horizon and grey in the lower horizon. There are thin silt-rich seams within the silty clay to clay unit.

Strata observed PHC odor in 10 of the 12 soil borings. The following PHC odor depth intervals are illustrated on soil boring logs in Appendix B:

- BH1 – 0 to 17 ft bgs
- BH2 – 0 to 17.5 ft bgs
- BH3 – 7.5 to 17.5 ft bgs
- BH4 – 7.5 to 14 ft bgs
- BH5 – 5 to 15 ft bgs
- BH6 – 8 to 10 ft bgs
- BH9 – 0.5 to 7.5 ft bgs
- BH10 – 0 to 20 ft bgs
- BH11 – 0 to 15 ft bgs
- BH12 – 0 to refusal at 14 ft bgs

Elevated vapor concentrations indicative of gasoline range PHCs were measured in soil samples acquired from soil borings BH10, BH11, and BH12. The maximum vapor concentrations in the samples from those borings were >100% Lower Explosive Limit (LEL) in the 12.5 to 15 ft bgs soil sample from soil boring BH10, 60% LEL in the 2.5 to 5 ft bgs soil sample from soil boring BH11, and 15% LEL in the 7.5 to 10 ft bgs soil sample from soil boring BH12.

Maximum vapor concentrations in soil samples recovered from soil borings BH1, BH2, BH3, BH4, BH5, BH6, and BH9 that exhibited PHC odor were measured at 130, 180, 70, 60, 100, 90, and 100 ppm, respectively. Soil samples recovered from soil borings BH7 and BH8 did not exhibit a PHC odor, and vapor concentrations did not exceed 45 ppm.

Strata encountered shallow groundwater within the silty clay to clay native soil at depths ranging from 13 to 18 ft bgs. Strata calculated the groundwater elevations based on the boring survey and depths to groundwater; however, due to the variable depths of groundwater encountered, it was not possible to infer groundwater flow trend beneath the Property at the time of the assessment. Strata did not

observe non-aqueous phase liquid at the top or base of the water column in the monitoring wells or in the collected groundwater samples.

4.2 Soil Laboratory Results

Laboratory analytical data for soil samples are presented along with assessment criteria in Tables 1, 2, and 3. As presented, laboratory analyses of the following parameters detected concentrations exceeding assessment criteria.

- Benzene in soil samples from soil borings BH10 and BH11: Benzene concentrations in excess of the criterion (2.8 mg/kg) are reported in soil samples obtained from soil boring BH10 12.5 to 15 ft bgs (46.2 mg/kg) and 20 to 22.5 ft bgs (3.99 mg/kg) and soil boring BH11 2.5 to 5 ft bgs (26.9 mg/kg).
- Xylenes in soil samples from soil borings BH10 and BH11: Xylenes concentrations in excess of the criterion (230 mg/kg) are reported in soil samples obtained from soil boring BH10 12.5 to 15 ft bgs (372 mg/kg) and soil boring BH11 2.5 to 5 ft bgs (573 mg/kg).
- PHC F1 in soil samples from soil borings BH2, BH10, and BH11: PHC F1 concentrations in excess of the criterion (320 mg/kg) are reported in soil samples obtained from soil boring BH2 2.5 to 5 ft bgs (354 mg/kg), soil boring BH10 12.5 to 15 ft bgs (1,320 mg/kg), and soil boring BH11 2.5 to 5 ft bgs (4,140 mg/kg).
- PHC F2 in soil samples from soil borings BH1, BH2, BH3, BH4, BH5, BH9, and BH11: PHC F2 concentrations in excess of the criterion (260 mg/kg) range from 306 mg/kg in the soil sample obtained from soil boring BH4 12.5 to 15 ft bgs to 2,520 mg/kg in the soil sample obtained from 2.5 to 5 ft bgs at soil boring BH9.
- PHC F3 in soil samples from soil borings BH7 and BH9: PHC F3 concentrations in excess of the criterion (2,500 mg/kg) are reported in soil samples obtained from soil boring BH7 2.5 to 5 ft bgs (6,770 mg/kg) and soil boring BH9 2.5 to 5 ft bgs (2,520 mg/kg).
- Arsenic, chromium, cobalt, copper, and nickel in soil samples obtained from the black sand fill layer present underneath the building floor slab at soil borings BH7 and BH9: Analyte concentrations in excess of the criterion are reported respectively. Arsenic concentrations in excess of the criterion (12 mg/kg) are reported at 142 and 83.1 mg/kg. Chromium concentrations in excess of the criterion (87 mg/kg) are reported at 370 and 203 mg/kg. Cobalt concentrations in excess of the criterion (300 mg/kg) are reported at 562 and 354 mg/kg. Copper concentrations in excess of the criterion (91 mg/kg) are reported at 163 and 127 mg/kg. Nickel concentrations in excess of the criterion (89 mg/kg) are reported at 1,660 and 1,130 mg/kg.
- Selenium and thallium in the soil sample obtained from the black sand fill layer present underneath the building floor slab at soil boring BH7: The selenium concentration in excess of the criterion (2.9 mg/kg) is reported in soil sample BH7 2 to 5 ft. at 3.12 mg/kg and a thallium concentration in excess of the criterion (1 mg/kg) is reported at 1.01 mg/kg.

Strata also reassessed laboratory analytical data collected in the Surface Soil Quality Assessment (Strata 2018b) against assessment criteria developed in this Phase II ESA. Results of the reassessment are

presented in Table A.1 (Appendix A). As presented, laboratory analysis of the following parameters detected concentrations exceeding assessment criteria:

- PHC F2 and/or PHC F3 in all analyzed surface soil samples (12): PHC F2 concentrations in excess of the criterion (260 mg/kg) range from 863 mg/kg in the 84,154,1.5 sample to 7,860 mg/kg in the 74,134,1 sample. PHC F3 concentrations in excess of the criterion (2,500 mg/kg) range from 3,010 mg/kg in the 64,134,1 sample to 10,800 mg/kg in the 74,144,1 sample.
- PHC F4 in the surface soil sample collected at 64,154,1: The PHC F4 concentration in excess of the criterion (6,600 mg/kg) is reported at 9,900 mg/kg.

Laboratory results for the soil QA/QC sample sets were the same or within a reasonable variance, considering soil heterogeneities for both QA/QC samples and their duplicates. As a result, Strata considers the reproducibility of the results adequate. Field sampling methodology and associated field QA/QC protocols were executed in a manner which yielded a reliable data set.

The laboratory certificate (Appendix C) did not identify QA/QC issues with the soil analytical data. The batch analyses were consistent with generally accepted industry practices, and the results represent satisfactory data reproducibility, precision, and accuracy.

4.3 Groundwater Laboratory Results

Laboratory analytical data for groundwater samples are summarized in Tables 4, 5, and 6. All analyzed constituents in the groundwater samples complied with the assessment criteria with the exception of benzene in the groundwater sample from monitoring well BH10. Benzene is reported at 6.94 mg/L in the monitoring well BH10 groundwater sample, which exceeds the benzene groundwater criterion of 0.43 mg/L.

Laboratory results on the groundwater QA/QC sample set were the same. As a result, the reproducibility of the results as a whole from a field program execution perspective is considered good, suggesting the field sampling methodology and associated field QA/QC protocols were executed in a manner which yielded a reliable data set.

The laboratory certificate (Appendix C) did not identify QA/QC issues with the groundwater analytical data. The batch analyses were consistent with generally accepted industry practices, and the results represent satisfactory data reproducibility, precision, and accuracy.

SECTION 5 CONCLUSIONS

This Phase II ESA is composed of field assessment and screening, soil and groundwater sample collection, and laboratory analysis of representative soil and groundwater samples from the potential contaminant sources identified in the Phase I ESA (Strata 2018), including two former fuel depots, the garage subsurface drainage system, in-ground hydraulic hoist, bus maintenance/repair activities, a former fueling station with five USTs decommissioned in 1992, and off-site fueling facilities located on upgradient lands. Strata submitted soil and groundwater samples from 12 soil borings and four temporary monitoring wells to ALS for testing of VOCs, PHCs, PAHs, and metals.

Fuel-related constituents were identified in analyzed soil samples from 9 of the 12 soil borings advanced at the Property and apparent in all 12 analyzed surface soil samples acquired in the area of the former aboveground diesel fuel depot on the west side of the Property. Based on laboratory results, two distinct areas of fuel-related soil contamination appear to be at the Property.

- Diesel range petroleum constituents have adversely impacted the soil in the area of the former diesel AST fuel depot on the west side of the Property. The impact is characterized by PHC F2 and PHC F3 exceedances of the criteria in surface soil samples collected during the surface soil investigation and in subsurface soil samples acquired from soil borings BH1, BH2, BH3, BH4, and BH5.
- Gasoline range constituents have adversely impacted soil and groundwater in the area of the former UST fuel depot in the south-central section of the Property. The impact is characterized by a benzene exceedance in groundwater at monitoring well BH10 and benzene, xylenes, PHC F1, and PHC F2 exceedances of the criteria in soil samples acquired at soil borings BH10 and BH11.

Petroleum constituents are also apparent in the soil sample from BH9, adjacent to the south floor drain in the garage. The impact is characterized by PHC F2 and PHC F3 exceedances of the criteria.

Strata identified metals impacts exceeding the criteria in the black sand fill layer that resides below the building floor slab. Metals with concentrations in excess of the criteria include arsenic, chromium, cobalt, copper, nickel, selenium, and thallium. It is likely the fill sand used as a base for the building construction is a bi-product of local copper, nickel, and cobalt mining operations. Based on field observations, the sand is effectively capped by the building, thereby limiting any migration or exposure.

Groundwater contamination at the Property is limited to benzene, which was detected at a concentration in excess of the assessment criterion in the groundwater sample acquired from monitoring well BH10. Monitoring well BH10 is located in the area of the former UST fuel depot in the south-central section of the Property. Given the limited transmissivity of the native clay, off-site migration is unlikely.

SECTION 6 REFERENCES

Alberta 2019. Alberta Government. (2019, May 7). *Alberta Tier 2 Soil and Groundwater Remediation Guidelines* [Online]. Available: https://open.alberta.ca/publications/1926-6251.

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Strata 2018b. Strata Environmental Services, Inc., "Surface Soil Quality Assessment, Former Aboveground Diesel Depot, Thompson, Manitoba," Document No. 1878487.31627, December 3.

SECTION 7 LIMITATIONS, EXCEPTIONS, AND CERTIFICATION

Strata prepared this report in accordance with generally accepted engineering and environmental practices for the exclusive use of the client. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

The findings and conclusions presented in this report are based exclusively on the field parameters measured and the chemical parameters tested at specific locations and are further defined by the mutually agreed upon scope of work, budget and schedule. Subsurface conditions between and beyond the sample locations may vary. The report is not intended to be exhaustive in scope or imply a risk-free site or the marketability of the site or fitness for a particular use. Areas of the Property not accessible during the investigation may, upon removal of access limitations, be found to exhibit conditions not identified during this assessment. Any change in fact or circumstance upon which this report is based may affect the expressed findings of this report. Should this occur, Strata reserves the right to modify its opinion(s).

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Notwithstanding these limitations, this report is believed to provide a reasonable representation of the environmental conditions apparent at the Property on the dates of measurement and chemical testing.

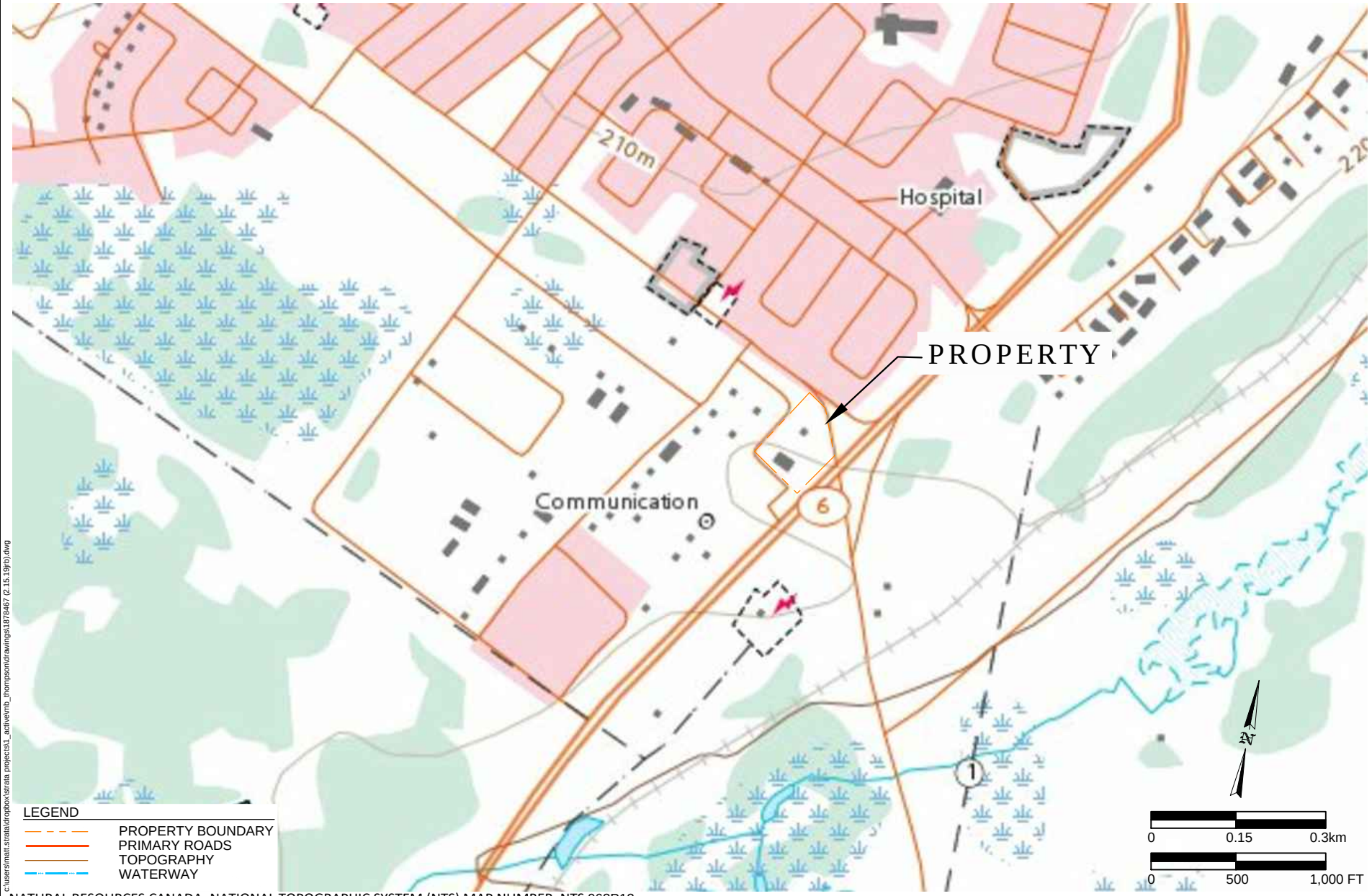
STRATA ENVIRONMENTAL SERVICES, INC.

Prepared by:

Tim Riddle
Principal Geologist

Darren Coleman, P. Eng., QP
Engineer

FIGURES



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NATURAL RESOURCES CANADA; NATIONAL TOPOGRAPHIC SYSTEM (NTS) MAP NUMBER NTS 063P12

Strata ENVIRONMENTAL

110 PERIMETER PARK ROAD
SUITE E
KNOXVILLE, TN 37922
PHONE (865) 539-2077
FAX (865) 539-3970

PROJECT NUMBER 1978443

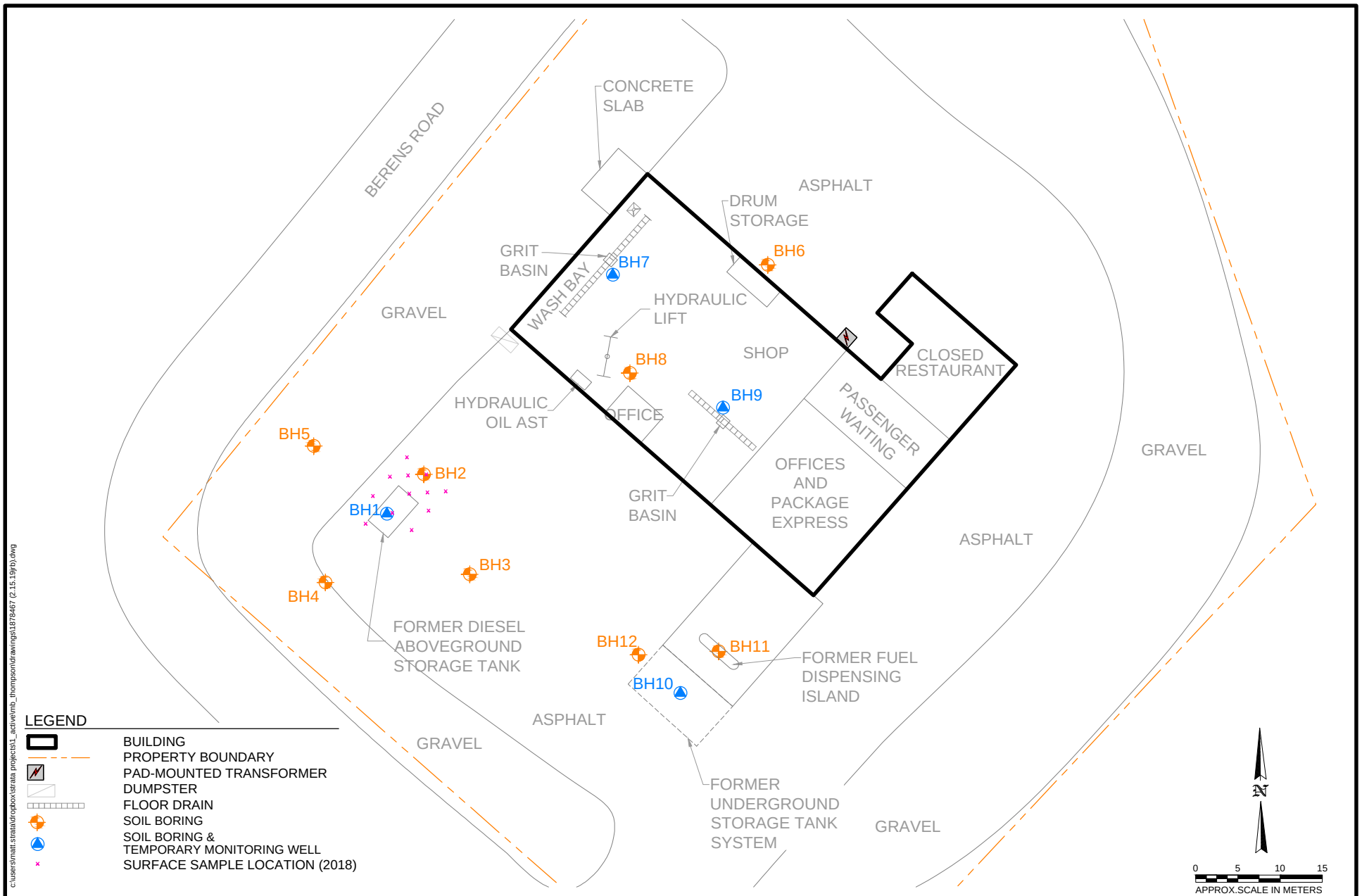
DATE May 2019

Property Location
Thompson

Greyhound Lines, Inc. #10035023
81 Berens Road, Thompson, Manitoba

FIGURE

1



LEGEND

- BUILDING
- PROPERTY BOUNDARY
- PAD-MOUNTED TRANSFORMER
- DUMPSTER
- FLOOR DRAIN
- SOIL BORING
- SOIL BORING & TEMPORARY MONITORING WELL
- SURFACE SAMPLE LOCATION (2018)

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Strata ENVIRONMENTAL
110 PERIMETER PARK ROAD
SUITE E
KNOXVILLE, TN 37922
PHONE (865) 539-2077
FAX (865) 539-3970

PROJECT NUMBER: 1978443

DATE: May 2019

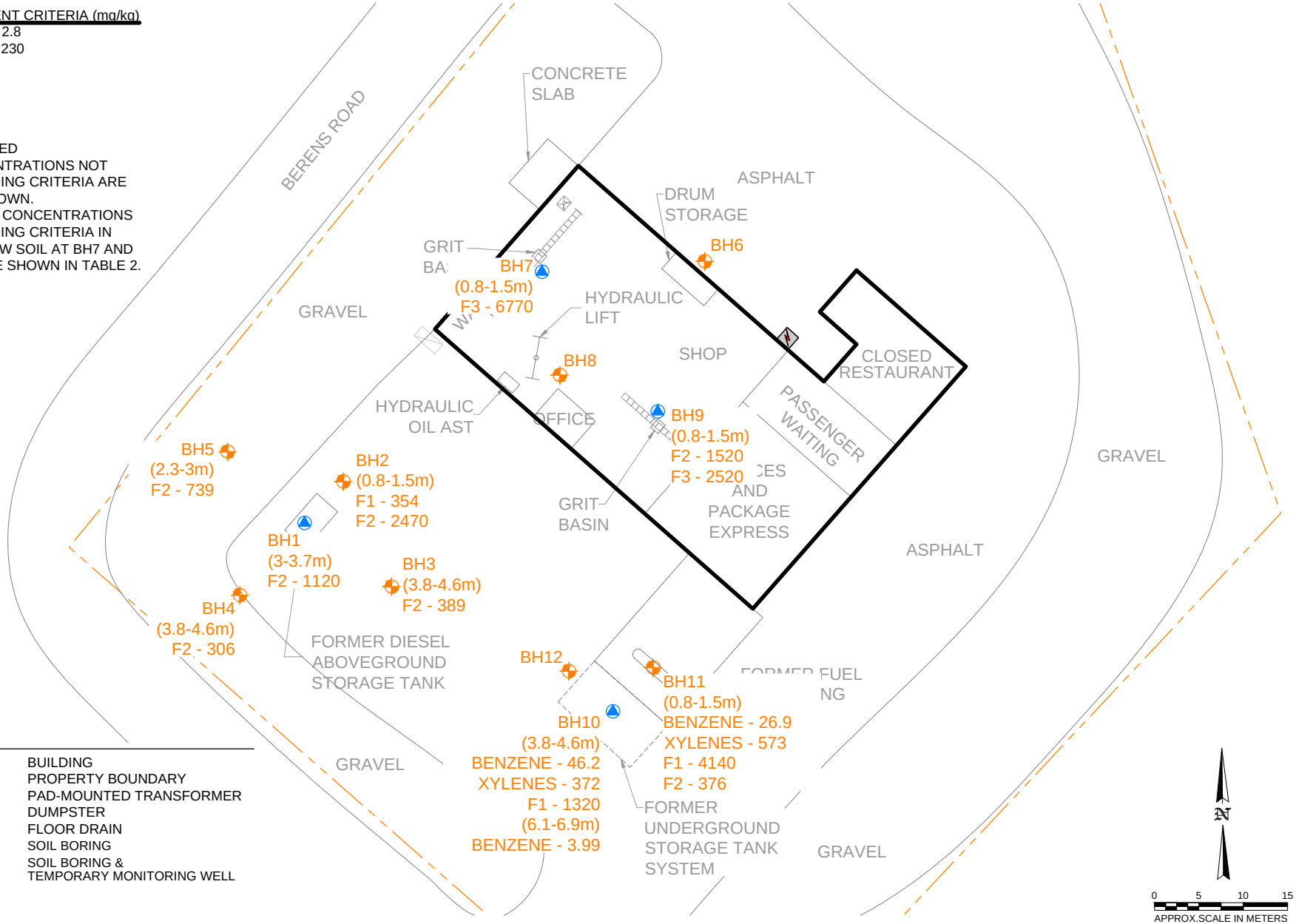
Boring Locations

Greyhound Lines, Inc. #10035023
81 Berens Road, Thompson, Manitoba

FIGURE 2

ASSESSMENT CRITERIA (mg/kg)
BENZENE - 2.8
XYLENES - 230
F1 - 320
F2 - 260
F3 - 2500

NOTES:
- DETECTED CONCENTRATIONS NOT EXCEEDING CRITERIA ARE NOT SHOWN.
- METALS CONCENTRATIONS EXCEEDING CRITERIA IN SHALLOW SOIL AT BH7 AND BH9 ARE SHOWN IN TABLE 2.



LEGEND

- BUILDING
- PROPERTY BOUNDARY
- PAD-MOUNTED TRANSFORMER
- DUMPSTER
- FLOOR DRAIN
- SOIL BORING
- SOIL BORING & TEMPORARY MONITORING WELL

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PROJECT NUMBER: 1978443
DATE: May 2019

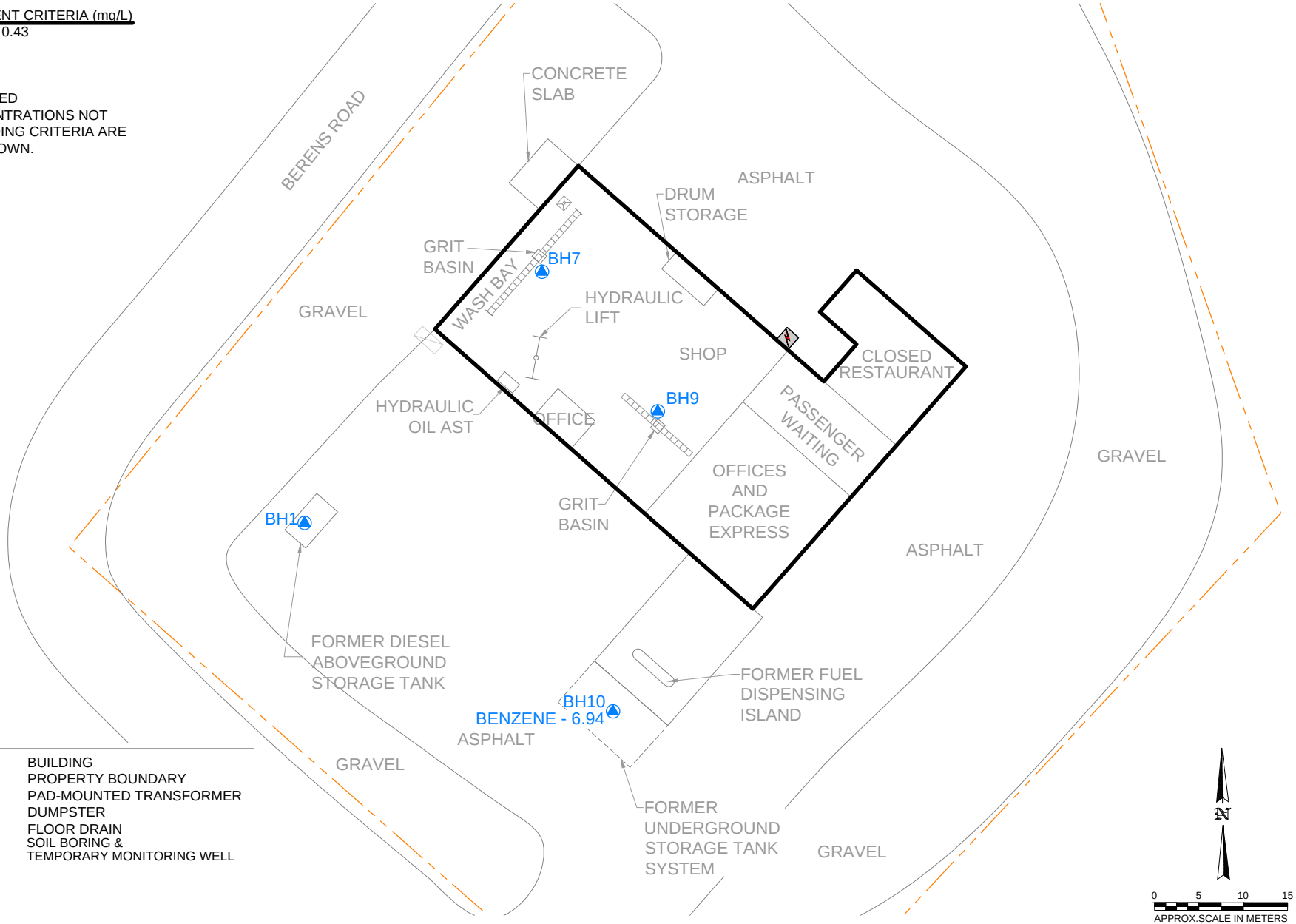
Concentrations Exceeding Assessment Criteria - Soil (mg/kg)

Greyhound Lines, Inc. #10035023
81 Berens Road, Thompson, Manitoba

FIGURE 3

ASSESSMENT CRITERIA (mg/L)
BENZENE - 0.43

NOTE:
- DETECTED CONCENTRATIONS NOT EXCEEDING CRITERIA ARE NOT SHOWN.



LEGEND

- BUILDING
- PROPERTY BOUNDARY
- PAD-MOUNTED TRANSFORMER
- DUMPSTER
- FLOOR DRAIN
- SOIL BORING & TEMPORARY MONITORING WELL

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PROJECT NUMBER: 1978443
DATE: May 2019

Concentrations Exceeding Assessment Criteria - Groundwater (mg/L)

Greyhound Lines, Inc. #10035023
81 Berens Road, Thompson, Manitoba

FIGURE 4

TABLES

Table 1 Summary of Soil Analytical Results - BTEX and PHCs

Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria (1)	BH1	BH1	BH2	BH2	BH2	BH3	BH4	BH5	BH6
		9-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19	9-Apr-19	10-Apr-19	10-Apr-19
		3-3.7 m	5.3-6.1 m	0.8-1.5 m	0.8-1.5 m	5.3-6.1 m	3.8-4.6 m	3.8-4.6 m	2.3-3 m	2.3-3 m
		10-12.5 ft	17.5-20 ft	2.5-5 ft	2.5-5 ft	17.5-20 ft	12.5-15 ft	12.5-15 ft	7.5-10 ft	7.5-10 ft
					DUP-S1					
	fine	L2257286-1	L2257286-2	L2257286-3	L2257286-4	L2257286-5	L2257286-6	L2257286-7	L2257286-13	L2257286-12
pH (pH units)	6 to 8	---	7.68	---	---	---	---	---	---	---
Benzene (10^{-5} carcinogenic risk)	2.8	0.179	---	0.212	---	---	---	---	---	<0.005
Toluene	330	0.301	---	0.081	---	---	---	---	---	<0.05
Ethylbenzene	430	2.27	---	3.34	---	---	---	---	---	<0.015
Xylenes	230	3.12	---	1.31	---	---	---	---	---	<0.045
F1 (C6-C10) - BTEX	320	249	---	**354**	---	---	---	---	---	16
F2 (C10-C16 Hydrocarbons)	260	**1120**	<25	**2470**	**3520**	30	**389**	**306**	**739**	37
F3 (C16-C34 Hydrocarbons)	2500	517	<50	1240	1960	<50	213	108	281	1270
F4 (C34-C50 Hydrocarbons)	6600	<50	<50	<50	<50	<50	<50	<50	<50	225
F4 Gravimetrics (2)	6600	---	---	---	---	---	---	---	---	---

Analyte	Assessment Criteria (1)	BH7	BH8	BH9	BH9	BH9	BH10	BH10	BH11	BH12
		10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	10-Apr-19	11-Apr-19	11-Apr-19
		0.8-1.5 m	2.3-3 m	0-0.8 m	0.8-1.5 m	0.8-1.5 m	3.8-4.6 m	6.1-6.9 m	0.8-1.5 m	2.3-3 m
		2.5-5 ft	7.5-10 ft	0-2.5 ft	2.5-5 ft	2.5-5 ft	12.5-15 ft	20-22.5 ft	2.5-5 ft	7.5-10 ft
						DUP-S2				
	fine	L2257286-11	L2257286-10	L2257286-8	L2257286-9	L2257286-18	L2257286-14	L2257286-15	L2257286-16	L2257286-17
pH (pH units)	6 to 8	---	---	7.99	---	---	---	---	---	---
Benzene (10^{-5} carcinogenic risk)	2.8	<0.005	---	---	<0.005	---	**46.2**	**3.99**	**26.9**	0.203
Toluene	330	<0.05	---	---	<0.05	---	277	5.97	195	<0.050
Ethylbenzene	430	<0.015	---	---	<0.015	---	55.8	1.8	123	0.3
Xylenes	230	<0.045	---	---	<0.045	---	**372**	12.5	**573**	0.283
F1 (C6-C10) - BTEX	320	<10	---	---	82	---	**1320**	10	**4140**	10
F2 (C10-C16 Hydrocarbons)	260	<25	<25	---	**1520**	**3750**	206	<25	**376**	27
F3 (C16-C34 Hydrocarbons)	2500	**6770**	<50	---	**2520**	**6240**	<50	<50	64	<50
F4 (C34-C50 Hydrocarbons)	6600	5120	<50	---	976	2360	<50	<50	<50	<50
F4 Gravimetrics (2)	6600	---	---	---	---	---	---	---	---	---

Notes:

Expressed in mg/kg unless noted otherwise

1 - Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (online 2019) and Canada Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (2008): commercial sites with fine-grained soil. Drinking water pathway and freshwater aquatic life pathway are considered inactive and, as a result, are excluded.

2 - represents PHC F4 when PHC fractions do not descend to C50 baseline

L2257286-1: Laboratory sample identifier

Dates presented are sample dates

Depths provided are in metres (m) and feet (ft) and are relative to grade

'---' - no standard or not analyzed

BOLD - value exceeds criterion

Table 2 Summary of Soil Analytical Results - Metals and PA
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria		BH7 10-Apr-19 0.8-1.5 m 2.5-5 ft	BH9 10-Apr-19 0-0.8 m 0-2.5 ft
	CCME (1)	MOECP	L2257286-11	L2257286-8
Aluminum (Al)	---	---	23000	15700
Antimony (Sb)	40	NR	0.64	0.39
Arsenic (As)	12	NR	**142**	**83.1**
Barium (Ba)	2000	NR	208	138
Beryllium (Be)	8	NR	0.49	0.29
Bismuth (Bi)	---	---	31.5	15.6
Boron (B)	---	120	0.33	<0.20
Cadmium (Cd)	22	NR	0.559	0.4
Calcium (Ca)	---	---	13400	8340
Chromium (Cr)	87	NR	**370**	**203**
Cobalt (Co)	300	NR	**562**	**354**
Copper (Cu)	91	NR	**163**	**127**
Iron (Fe)	---	---	234000	152000
Lead (Pb)	260	NR	16.5	10.2
Lithium (Li)	---	---	10.4	6.9
Magnesium (Mg)	---	---	20100	13100
Manganese (Mn)	---	---	295	189
Molybdenum (Mo)	40	NR	9.29	6.19
Nickel (Ni)	89	NR	**1660**	**1130**
Phosphorus (P)	---	---	104	79
Potassium (K)	---	---	8930	5490
Selenium (Se)	2.9	NR	**3.12**	1.45
Silver (Ag)	40	NR	0.14	0.11
Sodium (Na)	---	---	5490	3710
Strontium (Sr)	---	---	63.4	43.6
Sulfur (S)	---	---	9200	5300
Thallium (Tl)	1	NR	**1.01**	0.612
Tin (Sn)	300	---	<2.0	<2.0
Titanium (Ti)	---	---	472	300
Tungsten (W)	---	---	<0.50	<0.50
Uranium (U)	33	NR	1.73	0.908
Vanadium (V)	130	NR	37.6	23.5
Zinc (Zn)	410	NR	163	134
Zirconium (Zr)	---	---	12	8.2

Analyte	Assessment Criteria		BH7 10-Apr-19 0.8-1.5 m 2.5-5 ft	BH9 10-Apr-19 0-0.8 m 0-2.5 ft
	CCME (1)	MOECP	L2257286-11	L2257286-8
Acenaphthene	---	96	<0.0050	<0.0050
Acenaphthylene	---	0.17	<0.0050	<0.0050
Acridine	---	---	<0.010	<0.010
Anthracene	32	NR	<0.0040	<0.0040
Benzo(a)anthracene	10	NR	<0.010	<0.010
Benzo(a)pyrene	1.4	NR	<0.10	<0.010
Benzo(b&j)fluoranthene	10	NR	<0.10	<0.010
Benzo(b+j+k)fluoranthene	---	---	<0.14	<0.014
Benzo(g,h,i)perylene	---	9.6	<0.10	<0.010
Benzo(k)fluoranthene	10	NR	<0.10	<0.010
Chrysene	---	9.6	<0.010	<0.010
Dibenzo(a,h)anthracene	10	NR	<0.050	<0.0050
Fluoranthene	180	NR	<0.010	<0.010
Fluorene	---	69	<0.010	<0.010
Indeno(1,2,3-cd)pyrene	10	NR	<0.10	<0.010
1-Methyl Naphthalene	---	85	<0.010	<0.010
2-Methyl Naphthalene	---		<0.010	<0.010
Naphthalene	22	NR	0.01	<0.010
Phenanthrene	50	NR	<0.010	<0.010
Pyrene	100	NR	<0.010	<0.010
Quinoline	---	---	<0.010	<0.010
B(a)P Total Potency Equivalent	5.3	---	<0.091	<0.020
IACR (CCME)	1	---	<0.91	<0.15

Notes:

Expressed in mg/kg unless noted otherwise

1 - Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (online 2019) and Canada Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (2008): commercial sites with fine-grained soil. Drinking water pathway and freshwater aquatic life pathway are considered inactive and, as a result, are excluded.

L2257286-11: Laboratory sample identifier

Dates presented are sample dates

Depths provided are in metres (m) and feet (ft) and are relative to grade

'---' - no standard or not analyzed

NR - not required, CCME supersedes

BOLD - value exceeds criterion

Table 3 Summary of Soil Analytical Results - VOCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria		BH6	BH7	BH9
			10-Apr-19	10-Apr-19	10-Apr-19
			2.3-3 m	0.8-1.5 m	0.8-1.5 m
			7.5-10 ft	2.5-5 ft	2.5-5 ft
	CCME (1)	MOECP (2)	L2257286-12	L2257286-11	L2257286-9
Acetone	---	28	<0.50	<0.50	<0.50
Bromobenzene	---	---	<0.10	<0.10	<0.10
Bromochloromethane	---	18	<0.10	<0.10	<0.10
Bromodichloromethane	---	---	<0.050	<0.050	<0.050
Bromoform	---	1.7	<0.020	<0.020	<0.020
Bromomethane	---	0.05	<0.010	<0.010	<0.010
n-Butylbenzene	---	---	<0.10	<0.10	0.16
sec-Butylbenzene	---	---	<0.10	<0.10	<0.10
tert-Butylbenzene	---	---	<0.10	<0.10	<0.10
Carbon disulfide	---	---	<0.040	<0.040	<0.040
Carbon Tetrachloride	50	NR	<0.010	<0.010	<0.010
Chlorobenzene	10	NR	<0.020	<0.020	<0.020
Chloroethane	---	---	<0.020	<0.020	<0.020
Chloroform	50	NR	<0.050	<0.010	<0.010
Chloromethane	---	---	<0.020	<0.020	<0.020
2-Chlorotoluene	---	---	<0.10	<0.10	<0.10
4-Chlorotoluene	---	---	<0.10	<0.10	<0.10
Dibromochloromethane	---	13	<0.020	<0.020	<0.050
1,2-Dibromo-3-chloropropane	---	---	<0.10	<0.10	<0.10
1,2-Dibromoethane	---	0.05	<0.050	<0.050	<0.050
Dibromomethane	---	---	<0.010	<0.010	<0.010
1,2-Dichlorobenzene	10	NR	<0.020	<0.020	<0.020
1,3-Dichlorobenzene	10	NR	<0.020	<0.020	<0.020
1,4-Dichlorobenzene	10	NR	<0.010	<0.010	<0.010
Dichlorodifluoromethane	---	25	<0.030	<0.030	<0.030
1,1-dichloroethane	50	NR	<0.050	<0.050	<0.050
1,2-Dichloroethane	50	NR	<0.020	<0.020	<0.020
1,1-dichloroethene	50	NR	<0.050	<0.050	<0.050
cis-1,2-Dichloroethene	50	NR	<0.020	<0.020	<0.020
trans-1,2-Dichloroethene	50	NR	<0.12	<0.12	<0.12
Dichloromethane	50	NR	<0.10	<0.10	<0.10
1,2-Dichloropropane	50	NR	<0.020	<0.020	<0.020
1,3-Dichloropropane	---	---	<0.020	<0.020	<0.020
2,2-Dichloropropane	---	---	<0.20	<0.20	<0.20
1,1-Dichloropropene	---	---	<0.010	<0.010	<0.010
cis-1,3-Dichloropropene	50	NR	<0.10	<0.10	<0.10
trans-1,3-Dichloropropene	50	NR	<0.040	<0.040	<0.040
Hexachlorobutadiene	---	---	<0.010	<0.010	<0.010
Hexane		88	<0.050	<0.050	<0.050
Methyl butyl ketone	---	---	<0.20	<0.20	<0.20
Isopropylbenzene	---	---	<0.10	<0.10	<0.10
4-Isopropyltoluene	---	---	<0.10	<0.10	0.11
Methyl Ethyl Ketone	---	88	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	---	210	<0.20	<0.20	<0.20
Methyl tert-Butyl Ether (MTBE)	---	3.2	<0.20	<0.20	<0.20
Styrene	50	NR	<0.020	<0.020	<0.020
1,1,1,2-Tetrachloroethane	---	0.11	<0.0080	<0.0080	<0.0080
1,1,2,2-Tetrachloroethane	50	NR	<0.0080	<0.0080	<0.10
Tetrachloroethene	0.5	NR	<0.020	<0.020	<0.020
1,2,3-Trichlorobenzene	10	---	<0.10	<0.10	<1.0
1,2,4-Trichlorobenzene	10	NR	<0.10	<0.10	<0.50
1,1,1-Trichloroethane	---	12	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	50	NR	<0.010	<0.010	<0.010
Trichloroethene	0.01	NR	<0.010	<0.010	<0.010
Trichlorofluoromethane	---	5.8	<0.020	<0.020	<0.020
1,2,3-Trichloropropane	---	---	<0.10	<0.10	<0.10
1,2,4-Trimethylbenzene	---	---	<0.10	<0.10	0.35
1,3,5-Trimethylbenzene	---	---	<0.10	<0.10	<0.10
Vinyl Chloride	---	0.25	<0.050	<0.050	<0.050

Notes:
(Expressed in mg/kg unless noted otherwise)
1 - Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (online 2019) and Canada Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (2008): commercial sites with fine-grained soil. Drinking water pathway and freshwater aquatic life pathway are considered inactive and, as a result, are excluded.
L2257286-12: Laboratory sample identifier
Dates presented are sample dates
Depths provided are in metres (m) and feet (ft) and are relative to grade
'---' - no standard or not analyzed
NR - not required, CCME supersedes

Table 4 Summary of Groundwater Analytical Results - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria (1)		BH1	BH7	BH7	BH9	BH10
			11-Apr-19	11-Apr-19	11-Apr-19	11-Apr-19	11-Apr-19
					DUP-W1		
	MOECP (1)	AT2 (2)	L2257286-19	L2257286-20	L2257286-23	L2257286-21	L2257286-22
Benzene	0.43	NR	0.0518	<0.00050	<0.00050	<0.00050	**6.94**
Toluene	18	NR	0.0065	<0.00050	<0.00050	0.00089	9.03
Ethylbenzene	2.3	NR	0.0525	<0.00050	<0.00050	<0.00050	0.747
Xylenes	4.2	NR	0.164	<0.00050	<0.00050	0.001	3.93
F1 (C6-C10) - BTEX	NU	9.9	<0.10	<0.10	<0.10	<0.10	<5.0
F2 (C10-C16)	NU	3.1	1.38	0.36	---	0.79	0.61
F3 (C16-C34)	NU	---	0.78	1.19	---	3.08	1.5
F4 (C34-C50)	NU	---	<0.25	0.3	---	<0.25	1.27

Notes:

Expressed in mg/L

1 - MOECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (2011) - Table 3 Standards for commercial sites with fine-grained soil and non-potable groundwater use.

2 - Alberta Tier 2 Soil and Groundwater Remediation Guidelines (2016) - Guidelines for commercial sites with fine-grained soil. Drinking water pathway and freshwater aquatic life pathway are considered inactive and, as a result, are excluded.

NR- not required, CCME supersedes

NU - not used, F3 and F4 approach insolubility and AT2 considers exposure pathways.

L2257286-19: Laboratory sample identifier

'"---" - no standard/guideline or not analyzed

Bold - value exceeds criterion

Table 5 Summary of Groundwater Analytical Results - Metals
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria (1)	BH7	BH9
		11-Apr-19	11-Apr-19
	MOECP (1)	L2257286-20	L2257286-21
Aluminum (Al)-Total	---	0.0038	0.0082
Antimony (Sb)-Total	20	0.0004	0.00065
Arsenic (As)-Total	1.9	0.00081	0.00154
Barium (Ba)-Total	29	0.218	0.0947
Beryllium (Be)-Total	0.067	<0.00010	<0.00010
Bismuth (Bi)-Total	---	<0.000050	<0.000050
Boron (B)-Total	45	0.108	0.478
Cadmium (Cd)-Total	0.0027	<0.0000050	0.0000412
Calcium (Ca)-Total	---	172	86.2
Cesium (Cs)-Total	---	<0.000010	<0.000010
Chromium (Cr)-Total	0.81	0.00026	0.00034
Cobalt (Co)-Total	0.066	0.00225	0.0583
Copper (Cu)-Total	0.087	0.00184	0.00447
Iron (Fe)-Total	---	<0.010	0.058
Lead (Pb)-Total	0.025	0.000079	0.000115
Lithium (Li)-Total	---	0.0551	0.0425
Magnesium (Mg)-Total	---	93.8	53.6
Manganese (Mn)-Total	---	0.131	0.127
Molybdenum (Mo)-Total	9.2	0.0107	0.144
Nickel (Ni)-Total	0.49	0.0201	0.0233
Phosphorus (P)-Total	---	9.8	18.5
Potassium (K)-Total	---	0.065	0.037
Rubidium (Rb)-Total	---	0.00311	0.00348
Selenium (Se)-Total	0.063	0.000661	0.00269
Silicon (Si)-Total	---	9.15	10
Silver (Ag)-Total	0.0015	<0.000010	<0.000010
Sodium (Na)-Total	2300	144	429
Strontium (Sr)-Total	---	0.779	0.407
Sulfur (S)-Total	---	27.6	26.8
Tellurium (Te)-Total	---	<0.00020	<0.00020
Thallium (Tl)-Total	0.51	<0.000010	0.000014
Thorium (Th)-Total	---	<0.00010	<0.00010
Tin (Sn)-Total	---	0.00108	0.00255
Titanium (Ti)-Total	---	<0.00030	0.00048
Tungsten (W)-Total	---	<0.00010	0.00047
Uranium (U)-Total	0.42	0.0245	0.0108
Vanadium (V)-Total	0.25	0.00065	0.00173
Zinc (Zn)-Total	1.1	0.0088	0.01
Zirconium (Zr)-Total	---	0.000315	0.000734

Notes:
Expressed in mg/L
1 - MOECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (2011) - Table 3 Standards for commercial sites with fine-grained soil and non-potable groundwater use.
L2257286-20: Laboratory sample identifier
'"---" - no standard/guideline or not analyzed

Table 6 Summary of Groundwater Analytical Results - VOCS
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria (1)	BH7	BH7	BH9
		11-Apr-19	11-Apr-19	11-Apr-19
			DUP-W1	
	MOECP (1)	L2257286-20	L2257286-23	L2257286-21
Acetone	130	<0.020	<0.020	0.07
Bromobenzene	---	<0.00050	<0.00050	<0.00050
Bromochloromethane	---	<0.00050	<0.00050	<0.00050
Bromodichloromethane	85	<0.00050	<0.00050	<0.00050
Bromoform	0.77	<0.00050	<0.00050	<0.00050
Bromomethane	0.056	<0.0010	<0.0010	<0.0010
n-Butylbenzene	---	<0.00050	<0.00050	<0.00050
sec-Butylbenzene	---	<0.00050	<0.00050	<0.00050
tert-Butylbenzene	---	<0.00050	<0.00050	<0.00050
Carbon Disulfide	---	<0.0010	<0.0010	<0.0010
Carbon tetrachloride	0.0084	<0.00050	<0.00050	<0.00050
Chlorobenzene	0.63	<0.00050	<0.00050	<0.00050
Dibromochloromethane	82	<0.00050	<0.00050	<0.00050
Chloroethane	---	<0.0010	<0.0010	<0.0010
Chloroform	0.022	<0.00050	<0.00050	<0.00050
Chloromethane	---	<0.0010	<0.0010	<0.0010
2-Chlorotoluene	---	<0.020	<0.020	<0.020
4-Chlorotoluene	---	<0.00050	<0.00050	<0.00050
1,2-Dibromo-3-chloropropane	---	<0.00050	<0.00050	<0.00050
1,2-Dibromoethane	0.00083	<0.00050	<0.00050	<0.00050
Dibromomethane	---	<0.00050	<0.00050	<0.00050
1,2-Dichlorobenzene	9.6	<0.00050	<0.00050	<0.00050
1,3-Dichlorobenzene	9.6	<0.00050	<0.00050	<0.00050
1,4-Dichlorobenzene	0.067	<0.00050	<0.00050	<0.00050
Dichlorodifluoromethane	4.4	<0.0010	<0.0010	<0.0010
1,1-Dichloroethane	3.1	<0.00050	<0.00050	<0.00050
1,2-Dichloroethane	0.012	<0.00050	<0.00050	<0.00050
1,1-Dichloroethylene	0.017	<0.00050	<0.00050	<0.00050
cis-1,2-Dichloroethylene	0.017	<0.00050	<0.00050	<0.00050
trans-1,2-Dichloroethylene	0.017	<0.0010	<0.0010	<0.0010
Dichloromethane	5.5	<0.00050	<0.00050	<0.00050
1,2-Dichloropropane	0.14	<0.00050	<0.00050	<0.00050
1,3-Dichloropropane	---	<0.00050	<0.00050	<0.00050
2,2-Dichloropropane	---	<0.0010	<0.0010	<0.0010
1,1-Dichloropropene	---	<0.00050	<0.00050	<0.00050
cis-1,3-Dichloropropene	0.045	<0.0010	<0.0010	<0.0010
trans-1,3-Dichloropropene	0.045	<0.0010	<0.0010	<0.0010
Hexachlorobutadiene	0.0045	<0.00050	<0.00050	<0.00050
n-Hexane	0.52	<0.00050	<0.00050	<0.00050
2-Hexanone (Methyl butyl ketone)	---	<0.020	<0.020	<0.020
Isopropylbenzene	---	<0.00050	<0.00050	<0.00050
4-Isopropyltoluene	---	<0.0010	<0.0010	0.103
Methyl Ethyl Ketone	1500	<0.020	<0.020	<0.020
Methyl Isobutyl Ketone	580	<0.020	<0.020	<0.020
Methyl tert-Butyl Ether (MTBE)	1.4	<0.00050	<0.00050	<0.00050
Styrene	9.1	<0.00050	<0.00050	<0.00050
1,1,1,2-Tetrachloroethane	0.028	<0.00050	<0.00050	<0.00050
1,1,2,2-Tetrachloroethane	0.015	<0.00050	<0.00050	<0.00050
Tetrachloroethylene	0.017	<0.00050	<0.00050	<0.00050
1,2,3-Trichlorobenzene	---	<0.00050	<0.00050	<0.00050
1,2,4-Trichlorobenzene	0.85	<0.00050	<0.00050	<0.00050
1,1,1-Trichloroethane	6.7	<0.00050	<0.00050	<0.00050
1,1,2-Trichloroethane	0.03	<0.00050	<0.00050	<0.00050
Trichloroethylene	0.017	<0.00050	<0.00050	<0.00050
Trichlorofluoromethane	2.5	<0.0010	<0.0010	<0.0010
1,2,3-Trichloropropane	---	<0.00050	<0.00050	<0.00050
1,2,4-Trimethylbenzene	---	<0.00050	<0.00050	0.00284
1,3,5-Trimethylbenzene	---	<0.00050	<0.00050	0.00076
Vinyl chloride	0.0017	<0.00050	<0.00050	<0.00050
Trihalomethanes (total)	---	<0.0010	<0.0010	<0.0010

Notes:
Expressed in mg/L

1 - MOECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act (2011) - Table 3 Standards for commercial sites with fine-grained soil and non-potable groundwater use.

L2257286-20: Laboratory sample identifier
'"---" - no standard/guideline or not analyzed

APPENDIX A
TABLE A.1

Table A.1 Summary of Soil Analytical Results - BTEX and PHCs
Greyhound Lines, Inc. - Thompson, Manitoba

Analyte	Assessment Criteria (1)	64,134,1	64,144,1	64,154,1	69,139,1.5	69,149,1	74,134,1	74,134,1
		16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18
								DUP-S2
	fine	L2198549-2	L2198549-1	L2198549-3	L2198549-5	L2198549-4	L2198549-6	L2198549-14
Benzene (10^{-5} carcinogenic risk)	2.8	---	<0.0050	---	---	---	---	---
Toluene	330	---	<0.050	---	---	---	---	---
Ethylbenzene	430	---	<0.015	---	---	---	---	---
Xylenes	230	---	0.695	---	---	---	---	---
F1 (C6-C10) - BTEX	320	---	66	---	---	---	---	---
F2 (C10-C16 Hydrocarbons)	260	**2100**	**2150**	240	**6010**	**4010**	**7860**	**8350**
F3 (C16-C34 Hydrocarbons)	2500	**3010**	**3350**	**3330**	**4200**	**3080**	**5030**	**5550**
F4 (C34-C50 Hydrocarbons)	6600	1750	2240	2510	<50	102	75	89
Reached Baseline at C50	6600	NO	NO	NO	YES	YES	YES	YES
F4 Gravimetrics (2)	6600	5420	5490	**9990**	---	---	---	---

Analyte	Assessment Criteria (1)	74,144,1	74,154,1.5	84,134,1	84,134,1	84,144,1.5	84,154,1.5	94,149,1.5
		16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18	16-Nov-18
					DUP-S1			
	fine	L2198549-7	L2198549-10	L2198549-8	L2198549-9	L2198549-11	L2198549-12	L2198549-13
Benzene (10^{-5} carcinogenic risk)	2.8	<0.0050	---	<0.0050	---	---	---	---
Toluene	330	0.057	---	<0.050	---	---	---	---
Ethylbenzene	430	<0.015	---	0.026	---	---	---	---
Xylenes	230	<0.071	---	0.214	---	---	---	---
F1 (C6-C10) - BTEX	320	144	---	103	---	---	---	---
F2 (C10-C16 Hydrocarbons)	260	**7660**	**3250**	**2920**	**3130**	**1060**	**863**	**1880**
F3 (C16-C34 Hydrocarbons)	2500	**10800**	**3430**	2420	**2690**	1490	1270	1950
F4 (C34-C50 Hydrocarbons)	6600	140	51	<50	<50	<50	<50	54
Reached Baseline at C50	6600	YES	YES	YES	YES	YES	YES	YES
F4 Gravimetrics (2)		---	---	---	---	---	---	---

Notes:
Expressed in mg/kg unless noted otherwise
1 - Canadian Council of Ministers of the Environment (CCME) Soil Quality Guidelines (online 2018) and Canada Wide Standards for Petroleum Hydrocarbons (PHC) in Soil (2008): commercial sites with fine-grained soil.
2 - represents PHC F4 when PHC fractions do not descend to C50 baseline
L2198549-2: Laboratory sample identifier
Dates presented are sample dates
'---' - no standard or not analyzed
BOLD - value exceeds criterion

APPENDIX B
SOIL BORING LOGS

PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

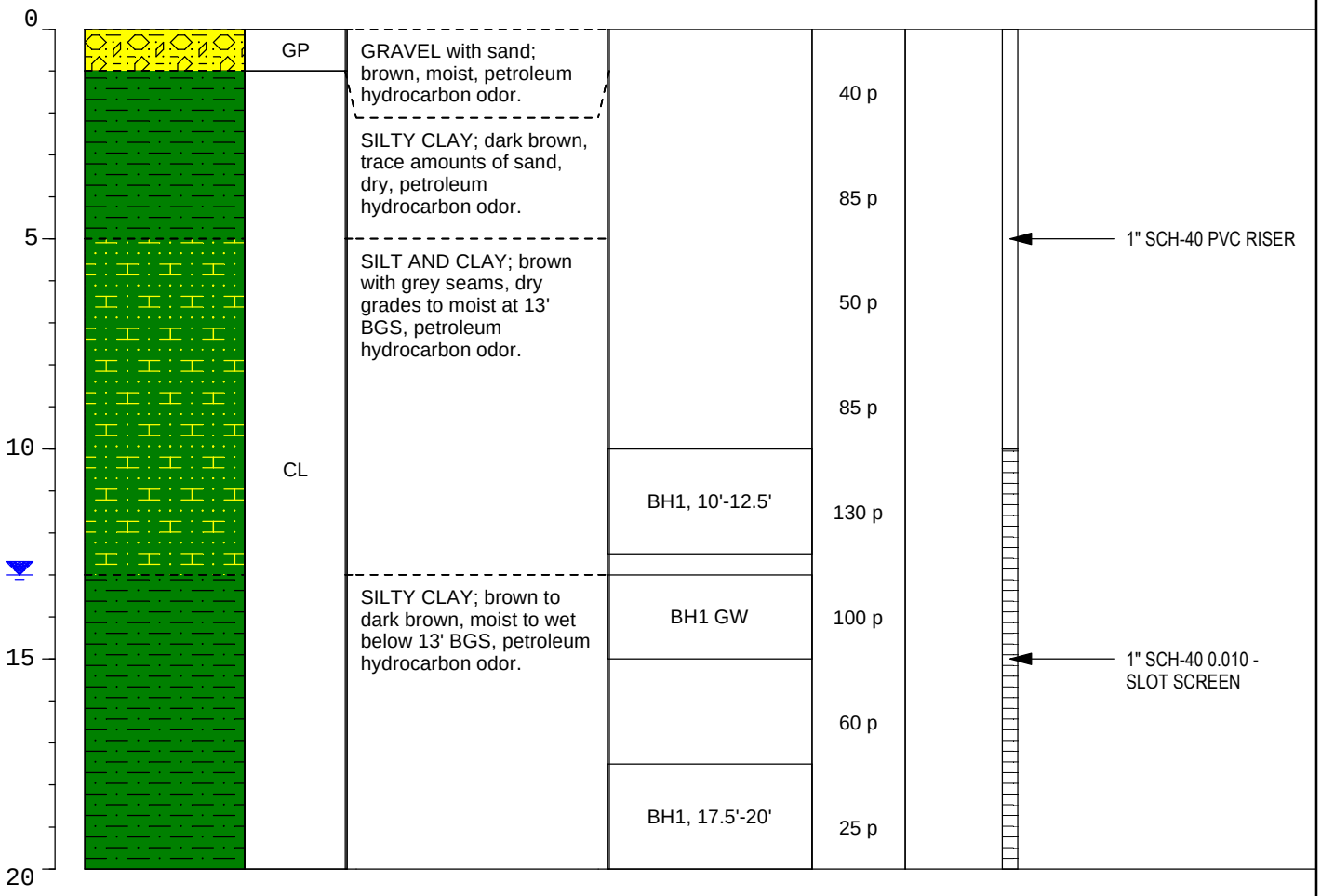
STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-01**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 9, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring Terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**13 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: Installed a 1" temporary PVC well to 20ft BGS (0-10' riser, 10-20' screen).



NOTES:

1. THIS LOG IS ONLY A PORTION OF A REPORT PREPARED FOR THE NAMED PROJECT AND MUST BE USED TOGETHER WITH THAT REPORT
2. STRATIFICATION AND GROUNDWATER DEPTHS ARE NOT EXACT
3. WATER LEVEL IS AT TIME OF EXPLORATION AND MAY VARY

Strata ENVIRONMENTAL
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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-02**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 9, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**16 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; brown, fill, moist, petroleum hydrocarbon odor.		110 p		
			SILTY CLAY; grey and brown, moist, some sand, petroleum hydrocarbon odor.	BH02, 2.5'-5'	180 p		
5		CL			130 p		
					130 p		
10			CLAY; grey and brown layering, moist grades to wet below 16' BGS, trace silt, petroleum hydrocarbon odor to 17.5' BGS.		70 p		
		CH			85 p		
15					80 p		
				BH02, 17.5'-20'	30 p		
20							

NOTES:

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3. WATER LEVEL IS AT TIME OF EXPLORATION AND MAY VARY

Strata ENVIRONMENTAL
110 Perimeter Park Road, Suite E, Knoxville, TN 37922 | tel 865.539.2077 | fax 865.539.3970 | www.strataenv.com

PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-03**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 9, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**15 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; brown, fill, dry, some small black sand layers throughout.		35 p		
		CL	SILTY CLAY; brown, dry, some silt seams, petroleum hydrocarbon odor beginning at 7.5' BGS.		15 p		
5					15 p		
					60 p		
10					55 p		
				BH03, 12.5'-15'	70 p		
15 ▼		CH	CLAY; brown and grey, moist to wet, trace fine silt seams, petroleum hydrocarbon odor to 17.5' BGS.		35 p		
					30 p		
20							

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-04**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 9, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**14 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; brown, fill, dry, trace cobbles.		30 p		
		CL	SILTY CLAY; brown, moist, trace sand and silt seams, faint petroleum hydrocarbon odors beginning at 7.5' BGS.		30 p		
5					15 p		
					40 p		
10			CLAY; brown, moist, trace grey silt seams, faint petroleum hydrocarbon odor.		45 p		
				BH04, 12.5'-15'	60 p		
15		CH	CLAY; brown, wet, trace sand and silt.		35 p		
					25 p		
20							

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-05**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 10, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 15 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**13 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; brown, fill, dry.		20 p		
			SILTY CLAY; brown, silt seams, dry grades to wet below 13' BGS, trace gravel, petroleum hydrocarbon odors present from 5-12' BGS.		25 p		
5					75 p		
		CL		BH05, 7.5'-10'	100 p		
10					55 p		
▼					30 p		
15							

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-06**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 10, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 15 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**Not Encountered.**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; brown, fill, moist, trace cobbles.		75 p		
5		CL	SILTY CLAY; brown, grey silt seams, moist, trace organics, petroleum hydrocarbon odors present from 8-10' BGS.	BH06, 7.5'-10'	50 p 50 p 90 p		
10			SILTY CLAY; brown, trace grey silt seams, moist, no odors.		20 p 20 p		
15							

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

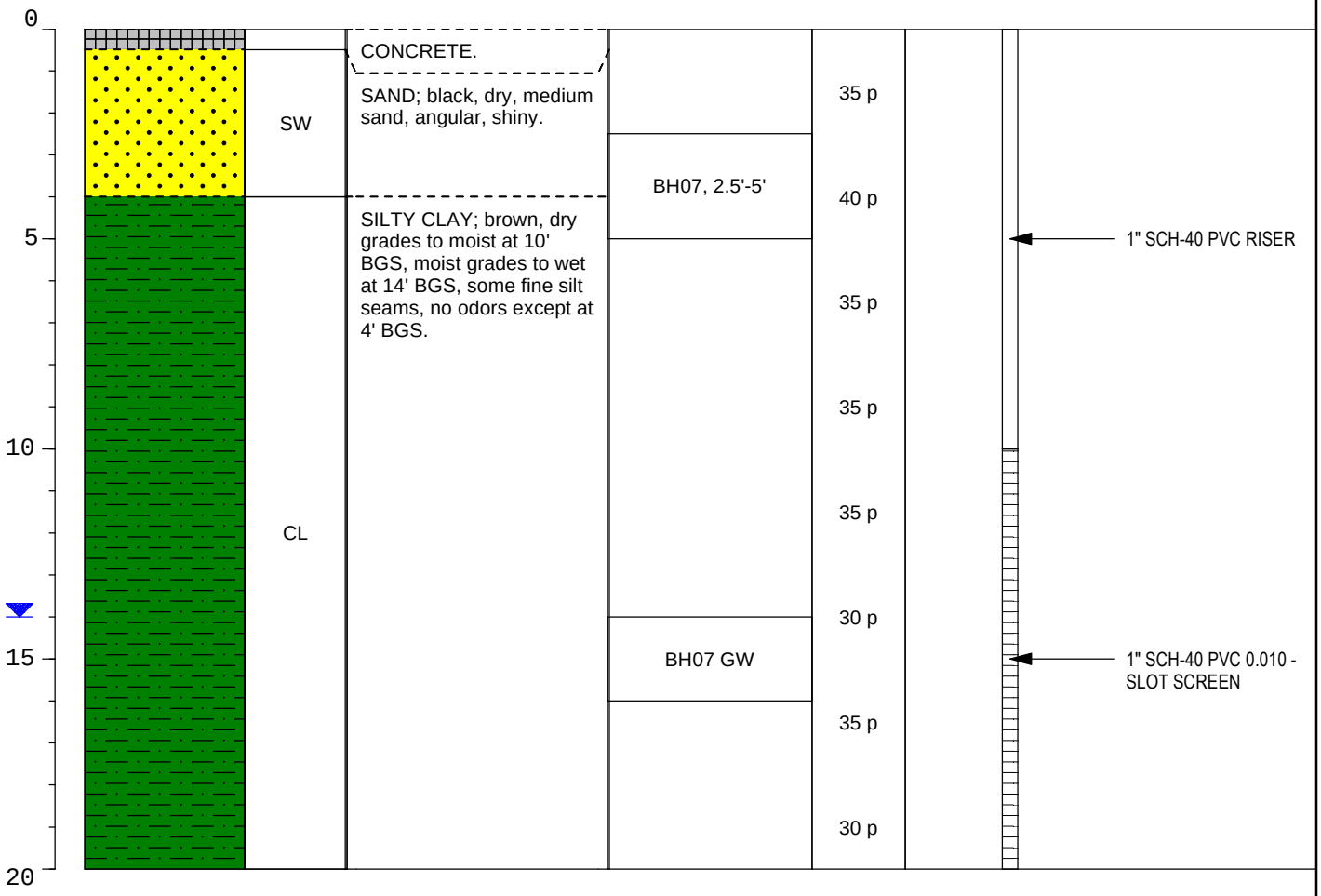
STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-07**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 10, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**14 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: Installed a 1" temporary PVC well to 20 ft BGS (0-10' riser, 10-20' screen).



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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-08**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 10, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 15 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**13 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0			CONCRETE.				
		SW	SAND; black, dry, medium sand, no odors, shiny.		20 p		
					20 p		
5			SILTY CLAY; brown and grey, dry grades to wet at 13' BGS, thin silt seams, no odors.		35 p		
				BH08, 7.5'-10'	45 p		
10		CL			25 p		
▼					25 p		
15							

NOTES:

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

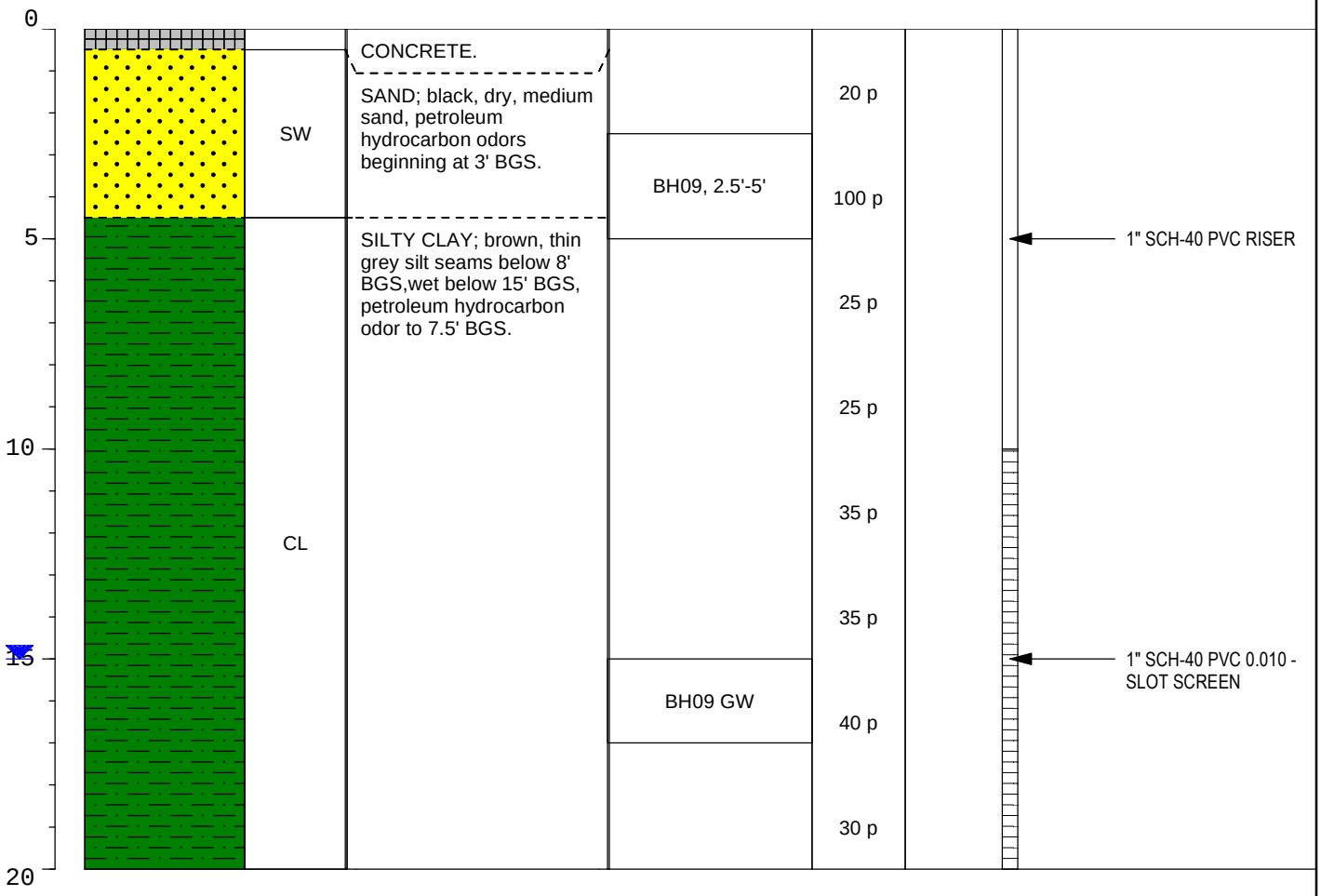
STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-09**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 10, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**15 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: Installed a 1" temporary PVC well to 20 ft BGS (0-10' riser, 10-20' screen).



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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-10**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 10, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 25 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**18 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: Installed a 1" temporary PVC well to 25ft BGS (0-15' riser, 15-25' screen).

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; grey, dry, fill, petroleum hydrocarbon odor.		7 %		
			SILTY CLAY; dark brown, some sand and trace gravel, fill, strong petroleum hydrocarbon odor.		34 %		
5					430 p		1" SCH-40 PVC RISER
					380 p		
10			SILTY CLAY; brown with thin grey silt seams, moist to wet, petroleum hydrocarbon odor (lessens with depth - not present below 20' BGS), below 18' BGS unit is completely grey and wet.		35 %		
		CL		BH10, 12.5'-15'	100 %		
15					12 %		
				BH10 GW	250 p		
20				BH10, 20'-22.5'	25 p		1" SCH-40 0.010 - SLOT SCREEN
					20 p		
25							

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-11**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 11, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**Boring terminated at 20 ft BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**13 ft BGS**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND; brown, fill, moist, some gravel, petroleum hydrocarbon odor.		75 p		
5			SILTY CLAY; brown, moist, fill, petroleum hydrocarbon odor.	BH11, 2.5'-5'	60 %		
			SILTY CLAY to CLAY; brown with fine grey silt seams, moist grades to wet below 13' BGS, petroleum hydrocarbon odor (lessens with depth - not present below 15' BGS).		56 %		
10		CL			50 %		
					8 %		
					6 %		
15					65 p		
					50 p		
20							

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PROJECT: **Greyhound Phase II ESA**
81 Berens Road, Thompson, Manitoba, R8N 1X3

STRATA JOB NUMBER: **1978443**

FIELD BORING LOG

BORING NO.: **BH-12**

CLIENT:	**Greyhound Lines Inc.**	DRILLING METHOD:	**DPT**
DATE DRILLED:	**April 11, 2019**	DRILL RIG:	**Geo-Probe 7822**
LOGGED BY:	**Carl Frankruyter**	DRILLER:	**Blake**
BORING DEPTH:	**DPT and Auger refusal at 14' BGS.**	DRILL COMPANY:	**Maple Leaf Drilling**
WATER LEVEL:	**Not Encountered.**	SAMPLE METHOD:	**Continuous**

NOTES: No well installed. Geoprobe inoperable, so an auger was used which encountered refusal at 14' BGS.

DEPTH	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NO.	PID ppm	BORING COMPLETION	WELL DESCRIPTION
0		SP	SAND with gravel; brown, fill, dry, petroleum hydrocarbon odor.		350 p 280 p		
5					5 %		
				BH12, 7.5'-10'	15 %		
10		CL	SILTY CLAY to CLAY; brown, moist, trace silt seams.		10 % 8 %		

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APPENDIX C
LABORATORY ANALYTICAL REPORTS

COLESTAR Environmental Inc.
ATTN: DARREN COLEMAN
178 Fincham Avenue
Markham ON L3P 4B3

Date Received: 12-APR-19
Report Date: 02-MAY-19 14:02 (MT)
Version: FINAL

Client Phone: 905-554-4156

Certificate of Analysis

Lab Work Order #: L2257286

Project P.O. #: NOT SUBMITTED
Job Reference: 0301-02
C of C Numbers:
Legal Site Desc:

Hua Wo
Chemistry Laboratory Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-1 BH1, 10'-12.5'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
BTEX and F1-F4 by Tumbler Method							
BTX plus F1 by GCMS							
Benzene	0.179		0.0050	mg/kg	09-APR-19	16-APR-19	R4602123
Toluene	0.301		0.050	mg/kg	09-APR-19	16-APR-19	R4602123
Ethyl benzene	2.27		0.015	mg/kg	09-APR-19	16-APR-19	R4602123
o-Xylene	0.561		0.050	mg/kg	09-APR-19	16-APR-19	R4602123
m+p-Xylenes	2.56		0.050	mg/kg	09-APR-19	16-APR-19	R4602123
F1 (C6-C10)	255		10	mg/kg	09-APR-19	16-APR-19	R4602123
Surrogate: 4-Bromofluorobenzene (SS)	112.5		70-130	%	09-APR-19	16-APR-19	R4602123
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	1120		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	517		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	111.6		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	249		10	mg/kg		25-APR-19	
Total Hydrocarbons (C6-C50)	1900		76	mg/kg		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	3.12		0.071	mg/kg		23-APR-19	
Miscellaneous Parameters							
Moisture	22.3		0.10	%		15-APR-19	R4601752
L2257286-2 BH1, 17.5'-20'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	31.3		0.10	%		15-APR-19	R4601752
pH (1:2 CaCl2)	7.68		0.10	pH		18-APR-19	R4605558
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	109.3		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-3 BH2, 2.5'-5'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
BTEX and F1-F4 by Tumbler Method							
BTX plus F1 by GCMS							
Benzene	0.212		0.0050	mg/kg	09-APR-19	16-APR-19	R4602123
Toluene	0.081		0.050	mg/kg	09-APR-19	16-APR-19	R4602123
Ethyl benzene	3.34		0.015	mg/kg	09-APR-19	16-APR-19	R4602123
o-Xylene	0.207		0.050	mg/kg	09-APR-19	16-APR-19	R4602123
m+p-Xylenes	1.10		0.050	mg/kg	09-APR-19	16-APR-19	R4602123
F1 (C6-C10)	359		10	mg/kg	09-APR-19	16-APR-19	R4602123
Surrogate: 4-Bromofluorobenzene (SS)	104.9		70-130	%	09-APR-19	16-APR-19	R4602123
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	2470		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	1240		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	96.5		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-3 BH2, 2.5'-5'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
CCME Total Hydrocarbons							
F1-BTEX	354		10	mg/kg		25-APR-19	
Total Hydrocarbons (C6-C50)	4070		76	mg/kg		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	1.31		0.071	mg/kg		23-APR-19	
Miscellaneous Parameters							
Moisture	21.7		0.10	%		15-APR-19	R4601752
L2257286-4 DUP-S1							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	22.5		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	3520		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	1960		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	118.8		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-5 BH2, 17.5'-20'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	22.7		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	30		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	109.3		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-6 BH3, 12.5'-15'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	23.5		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	389		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	213		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	119.1		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-7 BH4, 12.5'-15'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	21.1		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	306		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	108		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	109.0		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-7 BH4, 12.5'-15'							
Sampled By: CF on 09-APR-19							
Matrix: SOIL							
L2257286-8 BH9, 0-2.5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	2.72		0.10	%		15-APR-19	R4601752
pH (1:2 CaCl2)	7.99		0.10	pH		18-APR-19	R4605558
Metals in Soil by CRC ICPMS							
Aluminum (Al)	15700		50	mg/kg	15-APR-19	15-APR-19	R4601715
Antimony (Sb)	0.39		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Arsenic (As)	83.1		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Barium (Ba)	138		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Beryllium (Be)	0.29		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Boron (B)	15.6		5.0	mg/kg	15-APR-19	15-APR-19	R4601715
Bismuth (Bi)	<0.20		0.20	mg/kg	15-APR-19	15-APR-19	R4601715
Cadmium (Cd)	0.400		0.020	mg/kg	15-APR-19	15-APR-19	R4601715
Calcium (Ca)	8340		50	mg/kg	15-APR-19	15-APR-19	R4601715
Chromium (Cr)	203		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Cobalt (Co)	354		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Copper (Cu)	127		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Iron (Fe)	152000		5000	mg/kg	15-APR-19	15-APR-19	R4601715
Lead (Pb)	10.2		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Lithium (Li)	6.9		2.0	mg/kg	15-APR-19	15-APR-19	R4601715
Magnesium (Mg)	13100		20	mg/kg	15-APR-19	15-APR-19	R4601715
Manganese (Mn)	189		1.0	mg/kg	15-APR-19	15-APR-19	R4601715
Molybdenum (Mo)	6.19		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Nickel (Ni)	1130		50	mg/kg	15-APR-19	15-APR-19	R4601715
Phosphorus (P)	79		50	mg/kg	15-APR-19	15-APR-19	R4601715
Potassium (K)	5490		100	mg/kg	15-APR-19	15-APR-19	R4601715
Selenium (Se)	1.45		0.20	mg/kg	15-APR-19	15-APR-19	R4601715
Silver (Ag)	0.11		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Sodium (Na)	3710		50	mg/kg	15-APR-19	15-APR-19	R4601715
Strontium (Sr)	43.6		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Sulfur (S)	5300		1000	mg/kg	15-APR-19	15-APR-19	R4601715
Thallium (Tl)	0.612		0.050	mg/kg	15-APR-19	15-APR-19	R4601715
Tin (Sn)	<2.0		2.0	mg/kg	15-APR-19	15-APR-19	R4601715
Titanium (Ti)	300		1.0	mg/kg	15-APR-19	15-APR-19	R4601715
Tungsten (W)	<0.50		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Uranium (U)	0.908		0.050	mg/kg	15-APR-19	15-APR-19	R4601715
Vanadium (V)	23.5		0.20	mg/kg	15-APR-19	15-APR-19	R4601715
Zinc (Zn)	134		2.0	mg/kg	15-APR-19	15-APR-19	R4601715
Zirconium (Zr)	8.2		1.0	mg/kg	15-APR-19	15-APR-19	R4601715
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
2-Methyl Naphthalene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Acenaphthene	<0.0050		0.0050	mg/kg	15-APR-19	29-APR-19	R4617929
Acenaphthylene	<0.0050		0.0050	mg/kg	15-APR-19	29-APR-19	R4617929
Acridine	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Anthracene	<0.0040		0.0040	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(a)anthracene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(a)pyrene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(b&j)fluoranthene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(g,h,i)perylene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-8 BH9, 0-2.5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Polyaromatic Hydrocarbons (PAHs)							
Benzo(k)fluoranthene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Chrysene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Dibenzo(a,h)anthracene	<0.0050		0.0050	mg/kg	15-APR-19	29-APR-19	R4617929
Fluoranthene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Fluorene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Indeno(1,2,3-cd)pyrene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Naphthalene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Phenanthrene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Pyrene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Quinoline	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
B(a)P Total Potency Equivalent	<0.020		0.020	mg/kg	15-APR-19	29-APR-19	R4617929
IACR (CCME)	<0.15		0.15	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(b+j+k)fluoranthene	<0.014		0.014	mg/kg	15-APR-19	29-APR-19	R4617929
Surrogate: Acenaphthene d10	110.7		60-130	%	15-APR-19	29-APR-19	R4617929
Surrogate: Chrysene d12	115.9		60-130	%	15-APR-19	29-APR-19	R4617929
Surrogate: Naphthalene d8	115.9		50-130	%	15-APR-19	29-APR-19	R4617929
Surrogate: Phenanthrene d10	124.6		60-130	%	15-APR-19	29-APR-19	R4617929
L2257286-9 BH9, 2.5'-5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	11.8		0.10	%		15-APR-19	R4601752
VOC plus F1-F4 by Tumbler							
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	1520		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	2520		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	976		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	115.8		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	82		10	mg/kg		02-MAY-19	
Total Hydrocarbons (C6-C50)	5110		76	mg/kg		02-MAY-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.045		0.045	mg/kg		02-MAY-19	
VOC plus F1 by GCMS							
Acetone	<0.50		0.50	mg/kg	10-APR-19	21-APR-19	R4611415
Benzene	<0.0050		0.0050	mg/kg	10-APR-19	21-APR-19	R4611415
Bromobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Bromochloromethane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Bromodichloromethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Bromoform	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Bromomethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
n-Butylbenzene	0.16	EMPC	0.10	mg/kg	10-APR-19	21-APR-19	R4611415
sec-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
tert-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Carbon disulfide	<0.040	DLM	0.040	mg/kg	10-APR-19	21-APR-19	R4611415
Carbon Tetrachloride	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Chlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Chloroethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Chloroform	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Chloromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-9 BH9, 2.5'-5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
VOC plus F1 by GCMS							
2-Chlorotoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
4-Chlorotoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Dibromochloromethane	<0.050	DLM	0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dibromo-3-chloropropane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dibromoethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Dibromomethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,3-Dichlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,4-Dichlorobenzene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Dichlorodifluoromethane	<0.030		0.030	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-dichloroethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichloroethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-dichloroethene	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
cis-1,2-Dichloroethene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
trans-1,2-Dichloroethene	<0.12	DLM	0.12	mg/kg	10-APR-19	21-APR-19	R4611415
Dichloromethane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichloropropane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,3-Dichloropropane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
2,2-Dichloropropane	<0.20	DLM	0.20	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-Dichloropropene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
cis-1,3-Dichloropropene	<0.10	DLM	0.10	mg/kg	10-APR-19	21-APR-19	R4611415
trans-1,3-Dichloropropene	<0.040	DLM	0.040	mg/kg	10-APR-19	21-APR-19	R4611415
Ethylbenzene	<0.015		0.015	mg/kg	10-APR-19	21-APR-19	R4611415
F1	82		10	mg/kg	10-APR-19	21-APR-19	R4611415
Hexachlorobutadiene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Hexane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
2-Hexanone (Methyl butyl ketone)	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
Isopropylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
4-Isopropyltoluene	0.11		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
MEK	<0.50		0.50	mg/kg	10-APR-19	21-APR-19	R4611415
MIBK	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
MTBE	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
Styrene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,1,2-Tetrachloroethane	<0.0080		0.0080	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,2,2-Tetrachloroethane	<0.10	DLM	0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Tetrachloroethene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Toluene	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,3-Trichlorobenzene	<1.0	DLM	1.0	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,4-Trichlorobenzene	<0.50	DLM	0.50	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,1-Trichloroethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,2-Trichloroethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Trichloroethene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Trichlorofluoromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,3-Trichloropropane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,4-Trimethylbenzene	0.35		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,3,5-Trimethylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Vinyl Chloride	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
M+P-Xylenes	<0.040		0.040	mg/kg	10-APR-19	21-APR-19	R4611415
o-Xylene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Surrogate: 1,4-Difluorobenzene (SS)	84.2		70-130	%	10-APR-19	21-APR-19	R4611415
Surrogate: 4-Bromofluorobenzene (SS)	82.9		70-130	%	10-APR-19	21-APR-19	R4611415

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-10 BH8' 7.5'-10'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	23.0		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	110.9		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-11 BH7, 2.5'-5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	18.6		0.10	%		15-APR-19	R4601752
Metals in Soil by CRC ICPMS							
Aluminum (Al)	23000		5000	mg/kg	15-APR-19	15-APR-19	R4601715
Antimony (Sb)	0.64		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Arsenic (As)	142		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Barium (Ba)	208		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Beryllium (Be)	0.49		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Boron (B)	31.5		5.0	mg/kg	15-APR-19	15-APR-19	R4601715
Bismuth (Bi)	0.33		0.20	mg/kg	15-APR-19	15-APR-19	R4601715
Cadmium (Cd)	0.559		0.020	mg/kg	15-APR-19	15-APR-19	R4601715
Calcium (Ca)	13400		50	mg/kg	15-APR-19	15-APR-19	R4601715
Chromium (Cr)	370		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Cobalt (Co)	562		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Copper (Cu)	163		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Iron (Fe)	234000		5000	mg/kg	15-APR-19	15-APR-19	R4601715
Lead (Pb)	16.5		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Lithium (Li)	10.4		2.0	mg/kg	15-APR-19	15-APR-19	R4601715
Magnesium (Mg)	20100		20	mg/kg	15-APR-19	15-APR-19	R4601715
Manganese (Mn)	295		1.0	mg/kg	15-APR-19	15-APR-19	R4601715
Molybdenum (Mo)	9.29		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Nickel (Ni)	1660		50	mg/kg	15-APR-19	15-APR-19	R4601715
Phosphorus (P)	104		50	mg/kg	15-APR-19	15-APR-19	R4601715
Potassium (K)	8930		100	mg/kg	15-APR-19	15-APR-19	R4601715
Selenium (Se)	3.12		0.20	mg/kg	15-APR-19	15-APR-19	R4601715
Silver (Ag)	0.14		0.10	mg/kg	15-APR-19	15-APR-19	R4601715
Sodium (Na)	5490		50	mg/kg	15-APR-19	15-APR-19	R4601715
Strontium (Sr)	63.4		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Sulfur (S)	9200		1000	mg/kg	15-APR-19	15-APR-19	R4601715
Thallium (Tl)	1.01		0.050	mg/kg	15-APR-19	15-APR-19	R4601715
Tin (Sn)	<2.0		2.0	mg/kg	15-APR-19	15-APR-19	R4601715
Titanium (Ti)	472		1.0	mg/kg	15-APR-19	15-APR-19	R4601715
Tungsten (W)	<0.50		0.50	mg/kg	15-APR-19	15-APR-19	R4601715
Uranium (U)	1.73		0.050	mg/kg	15-APR-19	15-APR-19	R4601715
Vanadium (V)	37.6		0.20	mg/kg	15-APR-19	15-APR-19	R4601715
Zinc (Zn)	163		2.0	mg/kg	15-APR-19	15-APR-19	R4601715
Zirconium (Zr)	12.0		1.0	mg/kg	15-APR-19	15-APR-19	R4601715
Polyaromatic Hydrocarbons (PAHs)							
1-Methyl Naphthalene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
2-Methyl Naphthalene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Acenaphthene	<0.0050		0.0050	mg/kg	15-APR-19	29-APR-19	R4617929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-11 BH7, 2.5'-5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Polyaromatic Hydrocarbons (PAHs)							
Acenaphthylene	<0.0050		0.0050	mg/kg	15-APR-19	29-APR-19	R4617929
Acridine	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Anthracene	<0.0040		0.0040	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(a)anthracene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(a)pyrene	<0.10	DLM	0.10	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(b&j)fluoranthene	<0.10	DLM	0.10	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(g,h,i)perylene	<0.10	DLM	0.10	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(k)fluoranthene	<0.10	DLM	0.10	mg/kg	15-APR-19	29-APR-19	R4617929
Chrysene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Dibenzo(a,h)anthracene	<0.050	DLM	0.050	mg/kg	15-APR-19	29-APR-19	R4617929
Fluoranthene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Fluorene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Indeno(1,2,3-cd)pyrene	<0.10	DLM	0.10	mg/kg	15-APR-19	29-APR-19	R4617929
Naphthalene	0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Phenanthrene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Pyrene	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
Quinoline	<0.010		0.010	mg/kg	15-APR-19	29-APR-19	R4617929
B(a)P Total Potency Equivalent	<0.091		0.091	mg/kg	15-APR-19	29-APR-19	R4617929
IACR (CCME)	<0.91		0.91	mg/kg	15-APR-19	29-APR-19	R4617929
Benzo(b+j+k)fluoranthene	<0.14		0.14	mg/kg	15-APR-19	29-APR-19	R4617929
Surrogate: Acenaphthene d10	98.8		60-130	%	15-APR-19	29-APR-19	R4617929
Surrogate: Chrysene d12	60.7		60-130	%	15-APR-19	29-APR-19	R4617929
Surrogate: Naphthalene d8	104.1		50-130	%	15-APR-19	29-APR-19	R4617929
Surrogate: Phenanthrene d10	98.3		60-130	%	15-APR-19	29-APR-19	R4617929
VOC plus F1-F4 by Tumbler							
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	6770		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	5120		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	107.5		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	<10		10	mg/kg		02-MAY-19	
F2-Naphth	<25		25	mg/kg		02-MAY-19	
F3-PAH	6770		50	mg/kg		02-MAY-19	
Total Hydrocarbons (C6-C50)	11900		76	mg/kg		02-MAY-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.045		0.045	mg/kg		02-MAY-19	
VOC plus F1 by GCMS							
Acetone	<0.50		0.50	mg/kg	10-APR-19	21-APR-19	R4611415
Benzene	<0.0050		0.0050	mg/kg	10-APR-19	21-APR-19	R4611415
Bromobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Bromochloromethane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Bromodichloromethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Bromoform	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Bromomethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
n-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
sec-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
tert-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Carbon disulfide	<0.040	DLM	0.040	mg/kg	10-APR-19	21-APR-19	R4611415
Carbon Tetrachloride	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Chlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-11 BH7, 2.5'-5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
VOC plus F1 by GCMS							
Chloroethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Chloroform	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Chloromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
2-Chlorotoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
4-Chlorotoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Dibromochloromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dibromo-3-chloropropane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dibromoethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Dibromomethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,3-Dichlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,4-Dichlorobenzene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Dichlorodifluoromethane	<0.030		0.030	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-dichloroethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichloroethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-dichloroethene	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
cis-1,2-Dichloroethene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
trans-1,2-Dichloroethene	<0.12	DLM	0.12	mg/kg	10-APR-19	21-APR-19	R4611415
Dichloromethane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichloropropane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,3-Dichloropropane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
2,2-Dichloropropane	<0.20	DLM	0.20	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-Dichloropropene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
cis-1,3-Dichloropropene	<0.10	DLM	0.10	mg/kg	10-APR-19	21-APR-19	R4611415
trans-1,3-Dichloropropene	<0.040	DLM	0.040	mg/kg	10-APR-19	21-APR-19	R4611415
Ethylbenzene	<0.015		0.015	mg/kg	10-APR-19	21-APR-19	R4611415
F1	<10		10	mg/kg	10-APR-19	21-APR-19	R4611415
Hexachlorobutadiene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Hexane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
2-Hexanone (Methyl butyl ketone)	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
Isopropylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
4-Isopropyltoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
MEK	<0.50		0.50	mg/kg	10-APR-19	21-APR-19	R4611415
MIBK	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
MTBE	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
Styrene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,1,2-Tetrachloroethane	<0.0080		0.0080	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,2,2-Tetrachloroethane	<0.0080		0.0080	mg/kg	10-APR-19	21-APR-19	R4611415
Tetrachloroethene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Toluene	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,3-Trichlorobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,4-Trichlorobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,1-Trichloroethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,2-Trichloroethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Trichloroethene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Trichlorofluoromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,3-Trichloropropane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,4-Trimethylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,3,5-Trimethylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Vinyl Chloride	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
M+P-Xylenes	<0.040		0.040	mg/kg	10-APR-19	21-APR-19	R4611415

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-11 BH7, 2.5'-5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
VOC plus F1 by GCMS							
o-Xylene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Surrogate: 1,4-Difluorobenzene (SS)	84.4		70-130	%	10-APR-19	21-APR-19	R4611415
Surrogate: 4-Bromofluorobenzene (SS)	81.2		70-130	%	10-APR-19	21-APR-19	R4611415
L2257286-12 BH6, 7.5'-10'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	24.1		0.10	%		15-APR-19	R4601752
VOC plus F1-F4 by Tumbler							
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	37		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	1270		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	225		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	113.8		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	16		10	mg/kg		02-MAY-19	
Total Hydrocarbons (C6-C50)	1540		76	mg/kg		02-MAY-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.045		0.045	mg/kg		02-MAY-19	
VOC plus F1 by GCMS							
Acetone	<0.50		0.50	mg/kg	10-APR-19	21-APR-19	R4611415
Benzene	<0.0050		0.0050	mg/kg	10-APR-19	21-APR-19	R4611415
Bromobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Bromochloromethane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Bromodichloromethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Bromoform	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Bromomethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
n-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
sec-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
tert-Butylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Carbon disulfide	<0.040	DLM	0.040	mg/kg	10-APR-19	21-APR-19	R4611415
Carbon Tetrachloride	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Chlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Chloroethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Chloroform	<0.050	DLM	0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Chloromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
2-Chlorotoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
4-Chlorotoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Dibromochloromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dibromo-3-chloropropane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dibromoethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
Dibromomethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,3-Dichlorobenzene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,4-Dichlorobenzene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Dichlorodifluoromethane	<0.030		0.030	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-dichloroethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichloroethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-dichloroethene	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
cis-1,2-Dichloroethene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-12 BH6, 7.5'-10'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
VOC plus F1 by GCMS							
trans-1,2-Dichloroethene	<0.12	DLM	0.12	mg/kg	10-APR-19	21-APR-19	R4611415
Dichloromethane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2-Dichloropropane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,3-Dichloropropane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
2,2-Dichloropropane	<0.20	DLM	0.20	mg/kg	10-APR-19	21-APR-19	R4611415
1,1-Dichloropropene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
cis-1,3-Dichloropropene	<0.10	DLM	0.10	mg/kg	10-APR-19	21-APR-19	R4611415
trans-1,3-Dichloropropene	<0.040	DLM	0.040	mg/kg	10-APR-19	21-APR-19	R4611415
Ethylbenzene	<0.015		0.015	mg/kg	10-APR-19	21-APR-19	R4611415
F1	16		10	mg/kg	10-APR-19	21-APR-19	R4611415
Hexachlorobutadiene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Hexane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
2-Hexanone (Methyl butyl ketone)	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
Isopropylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
4-Isopropyltoluene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
MEK	<0.50		0.50	mg/kg	10-APR-19	21-APR-19	R4611415
MIBK	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
MTBE	<0.20		0.20	mg/kg	10-APR-19	21-APR-19	R4611415
Styrene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,1,2-Tetrachloroethane	<0.0080		0.0080	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,2,2-Tetrachloroethane	<0.0080		0.0080	mg/kg	10-APR-19	21-APR-19	R4611415
Tetrachloroethene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Toluene	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,3-Trichlorobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,4-Trichlorobenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,1-Trichloroethane	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
1,1,2-Trichloroethane	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Trichloroethene	<0.010		0.010	mg/kg	10-APR-19	21-APR-19	R4611415
Trichlorofluoromethane	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,3-Trichloropropane	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,2,4-Trimethylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
1,3,5-Trimethylbenzene	<0.10		0.10	mg/kg	10-APR-19	21-APR-19	R4611415
Vinyl Chloride	<0.050		0.050	mg/kg	10-APR-19	21-APR-19	R4611415
M+P-Xylenes	<0.040		0.040	mg/kg	10-APR-19	21-APR-19	R4611415
o-Xylene	<0.020		0.020	mg/kg	10-APR-19	21-APR-19	R4611415
Surrogate: 1,4-Difluorobenzene (SS)	89.0		70-130	%	10-APR-19	21-APR-19	R4611415
Surrogate: 4-Bromofluorobenzene (SS)	86.4		70-130	%	10-APR-19	21-APR-19	R4611415
L2257286-13 BH5, 7.5'-10'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	25.4		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	739		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	281		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	132.0		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-14 BH10, 12.5'-15'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-14 BH10, 12.5'-15'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
BTEX and F1-F4 by Tumbler Method							
BTX plus F1 by GCMS							
Benzene	46.2	DLHC	0.050	mg/kg	10-APR-19	16-APR-19	R4602123
Toluene	277	DLHC	2.5	mg/kg	10-APR-19	16-APR-19	R4602123
Ethyl benzene	55.8	DLHC	0.15	mg/kg	10-APR-19	16-APR-19	R4602123
o-Xylene	92.6	DLHC	0.50	mg/kg	10-APR-19	16-APR-19	R4602123
m+p-Xylenes	279	DLHC	2.5	mg/kg	10-APR-19	16-APR-19	R4602123
F1 (C6-C10)	2070	DLHC	100	mg/kg	10-APR-19	16-APR-19	R4602123
Surrogate: 4-Bromofluorobenzene (SS)	101.8		70-130	%	10-APR-19	16-APR-19	R4602123
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	206		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	117.9		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	1320		310	mg/kg		25-APR-19	
Total Hydrocarbons (C6-C50)	2270		130	mg/kg		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	372		2.5	mg/kg		25-APR-19	
Miscellaneous Parameters							
Moisture	24.4		0.10	%		15-APR-19	R4601752
L2257286-15 BH10, 20'-22.5'							
Sampled By: CF on 10-APR-19							
Matrix: SOIL							
BTEX and F1-F4 by Tumbler Method							
BTX plus F1 by GCMS							
Benzene	3.99		0.0050	mg/kg	10-APR-19	16-APR-19	R4602123
Toluene	5.97		0.050	mg/kg	10-APR-19	16-APR-19	R4602123
Ethyl benzene	1.80		0.015	mg/kg	10-APR-19	16-APR-19	R4602123
o-Xylene	3.35		0.050	mg/kg	10-APR-19	16-APR-19	R4602123
m+p-Xylenes	9.16		0.050	mg/kg	10-APR-19	16-APR-19	R4602123
F1 (C6-C10)	35		10	mg/kg	10-APR-19	16-APR-19	R4602123
Surrogate: 4-Bromofluorobenzene (SS)	84.7		70-130	%	10-APR-19	16-APR-19	R4602123
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	<25		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	110.6		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	10		10	mg/kg		25-APR-19	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	12.5		0.071	mg/kg		23-APR-19	
Miscellaneous Parameters							
Moisture	21.6		0.10	%		15-APR-19	R4601752
L2257286-16 BH11, 2.5'-5'							
Sampled By: CF on 11-APR-19							
Matrix: SOIL							
BTEX and F1-F4 by Tumbler Method							
BTX plus F1 by GCMS							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-16 BH11, 2.5'-5'							
Sampled By: CF on 11-APR-19							
Matrix: SOIL							
BTX plus F1 by GCMS							
Benzene	26.9	DLHC	0.25	mg/kg	11-APR-19	16-APR-19	R4602123
Toluene	195	DLHC	2.5	mg/kg	11-APR-19	16-APR-19	R4602123
Ethyl benzene	123	DLH	0.75	mg/kg	11-APR-19	16-APR-19	R4602123
o-Xylene	106	DLHC	2.5	mg/kg	11-APR-19	16-APR-19	R4602123
m+p-Xylenes	467	DLHC	2.5	mg/kg	11-APR-19	16-APR-19	R4602123
F1 (C6-C10)	5050	DLHC	500	mg/kg	11-APR-19	16-APR-19	R4602123
Surrogate: 4-Bromofluorobenzene (SS)	109.6		70-130	%	11-APR-19	16-APR-19	R4602123
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	376		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	64		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	118.4		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	4140		500	mg/kg		25-APR-19	
Total Hydrocarbons (C6-C50)	5490		510	mg/kg		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	573		3.5	mg/kg		23-APR-19	
Miscellaneous Parameters							
Moisture	23.2		0.10	%		15-APR-19	R4601752
L2257286-17 BH12, 7.5'-10'							
Sampled By: CF on 11-APR-19							
Matrix: SOIL							
BTEX and F1-F4 by Tumbler Method							
BTX plus F1 by GCMS							
Benzene	0.203		0.0050	mg/kg	11-APR-19	17-APR-19	R4602123
Toluene	<0.050		0.050	mg/kg	11-APR-19	17-APR-19	R4602123
Ethyl benzene	0.300		0.015	mg/kg	11-APR-19	17-APR-19	R4602123
o-Xylene	0.086		0.050	mg/kg	11-APR-19	17-APR-19	R4602123
m+p-Xylenes	0.197		0.050	mg/kg	11-APR-19	17-APR-19	R4602123
F1 (C6-C10)	11		10	mg/kg	11-APR-19	17-APR-19	R4602123
Surrogate: 4-Bromofluorobenzene (SS)	100.6		70-130	%	11-APR-19	17-APR-19	R4602123
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	27		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	<50		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	106.5		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
CCME Total Hydrocarbons							
F1-BTEX	10		10	mg/kg		25-APR-19	
Total Hydrocarbons (C6-C50)	<76		76	mg/kg		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	0.283		0.071	mg/kg		23-APR-19	
Miscellaneous Parameters							
Moisture	8.82		0.10	%		15-APR-19	R4601752
L2257286-18 DUP-S2							
Sampled By: CF on 11-APR-19							
Matrix: SOIL							
Miscellaneous Parameters							
Moisture	7.64		0.10	%		15-APR-19	R4601752
CCME Total Extractable Hydrocarbons							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-18 DUP-S2							
Sampled By: CF on 11-APR-19							
Matrix: SOIL							
CCME Total Extractable Hydrocarbons							
F2 (C10-C16)	3750		25	mg/kg	17-APR-19	17-APR-19	R4611946
F3 (C16-C34)	6240		50	mg/kg	17-APR-19	17-APR-19	R4611946
F4 (C34-C50)	2360		50	mg/kg	17-APR-19	17-APR-19	R4611946
Surrogate: 2-Bromobenzotrifluoride	114.9		60-140	%	17-APR-19	17-APR-19	R4611946
Chrom. to baseline at nC50	YES				17-APR-19	17-APR-19	R4611946
L2257286-19 BH1							
Sampled By: CF on 11-APR-19							
Matrix: GW							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	0.0518		0.00050	mg/L		17-APR-19	R4605260
Toluene	0.0065		0.0010	mg/L		17-APR-19	R4605260
Ethyl benzene	0.0525		0.00050	mg/L		17-APR-19	R4605260
o-Xylene	0.0647		0.00050	mg/L		17-APR-19	R4605260
m+p-Xylenes	0.0993		0.00040	mg/L		17-APR-19	R4605260
F1 (C6-C10)	0.37		0.10	mg/L		17-APR-19	R4605260
Surrogate: 4-Bromofluorobenzene (SS)	108.1		70-130	%		17-APR-19	R4605260
CCME PHC F2-F4 in Water							
F2 (C10-C16)	1.38		0.10	mg/L	18-APR-19	24-APR-19	R4611472
F3 (C16-C34)	0.78		0.25	mg/L	18-APR-19	24-APR-19	R4611472
F4 (C34-C50)	<0.25		0.25	mg/L	18-APR-19	24-APR-19	R4611472
Surrogate: 2-Bromobenzotrifluoride	104.7		60-140	%	18-APR-19	24-APR-19	R4611472
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		25-APR-19	
Total Hydrocarbons (C6-C50)	2.54		0.38	mg/L		25-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	0.164		0.00064	mg/L		23-APR-19	
L2257286-20 BH7							
Sampled By: CF on 11-APR-19							
Matrix: GW							
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.0038		0.0030	mg/L	17-APR-19	17-APR-19	R4605061
Antimony (Sb)-Total	0.00040		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Arsenic (As)-Total	0.00081		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Barium (Ba)-Total	0.218		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Boron (B)-Total	0.108		0.010	mg/L	17-APR-19	17-APR-19	R4605061
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-APR-19	17-APR-19	R4605061
Calcium (Ca)-Total	172		0.050	mg/L	17-APR-19	17-APR-19	R4605061
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Chromium (Cr)-Total	0.00026		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Cobalt (Co)-Total	0.00225		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Copper (Cu)-Total	0.00184		0.00050	mg/L	17-APR-19	17-APR-19	R4605061
Iron (Fe)-Total	<0.010		0.010	mg/L	17-APR-19	17-APR-19	R4605061
Lead (Pb)-Total	0.000079		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Lithium (Li)-Total	0.0551		0.0010	mg/L	17-APR-19	17-APR-19	R4605061
Magnesium (Mg)-Total	93.8		0.0050	mg/L	17-APR-19	17-APR-19	R4605061
Manganese (Mn)-Total	0.131		0.00010	mg/L	17-APR-19	17-APR-19	R4605061

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-20 BH7							
Sampled By: CF on 11-APR-19							
Matrix: GW							
Total Metals in Water by CRC ICPMS							
Molybdenum (Mo)-Total	0.0107		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Nickel (Ni)-Total	0.0201		0.00050	mg/L	17-APR-19	17-APR-19	R4605061
Potassium (K)-Total	9.80		0.050	mg/L	17-APR-19	17-APR-19	R4605061
Phosphorus (P)-Total	0.065		0.030	mg/L	17-APR-19	17-APR-19	R4605061
Rubidium (Rb)-Total	0.00311		0.00020	mg/L	17-APR-19	17-APR-19	R4605061
Selenium (Se)-Total	0.000661		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Silicon (Si)-Total	9.15		0.10	mg/L	17-APR-19	17-APR-19	R4605061
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Sodium (Na)-Total	144		0.050	mg/L	17-APR-19	17-APR-19	R4605061
Strontium (Sr)-Total	0.779		0.00020	mg/L	17-APR-19	17-APR-19	R4605061
Sulfur (S)-Total	27.6		0.50	mg/L	17-APR-19	17-APR-19	R4605061
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-APR-19	17-APR-19	R4605061
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Tin (Sn)-Total	0.00108		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-APR-19	17-APR-19	R4605061
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Uranium (U)-Total	0.0245		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Vanadium (V)-Total	0.00065		0.00050	mg/L	17-APR-19	17-APR-19	R4605061
Zinc (Zn)-Total	0.0088		0.0030	mg/L	17-APR-19	17-APR-19	R4605061
Zirconium (Zr)-Total	0.000315		0.000060	mg/L	17-APR-19	17-APR-19	R4605061
VOC plus F1 to F4							
CCME PHC F2-F4 in Water							
F2 (C10-C16)	0.36		0.10	mg/L	18-APR-19	24-APR-19	R4611472
F3 (C16-C34)	1.19		0.25	mg/L	18-APR-19	24-APR-19	R4611472
F4 (C34-C50)	0.30		0.25	mg/L	18-APR-19	24-APR-19	R4611472
Surrogate: 2-Bromobenzotrifluoride	104.8		60-140	%	18-APR-19	24-APR-19	R4611472
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		02-MAY-19	
Total Hydrocarbons (C6-C50)	1.86		0.38	mg/L		02-MAY-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	<0.00050		0.00050	mg/L		02-MAY-19	
Total Trihalomethanes (THMs)							
Total THMs	<0.0010		0.0010	mg/L		02-MAY-19	
VOC plus F1 by GCMS							
Acetone	<0.020		0.020	mg/L		21-APR-19	R4611170
Benzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromochloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromodichloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromoform	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromomethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
n-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
sec-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
tert-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Carbon disulfide	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Carbon Tetrachloride	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chloroethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
Chloroform	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chloromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
2-Chlorotoluene	<0.020		0.020	mg/L		21-APR-19	R4611170

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-20 BH7							
Sampled By: CF on 11-APR-19							
Matrix: GW							
VOC plus F1 by GCMS							
4-Chlorotoluene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dibromochloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dibromo-3-chloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dibromoethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dibromomethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
1,1-dichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1-dichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
trans-1,2-Dichloroethene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Dichloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3-Dichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
2,2-Dichloropropane	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
1,1-Dichloropropene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
cis-1,3-Dichloropropene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
trans-1,3-Dichloropropene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Ethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
F1	<0.10		0.10	mg/L		21-APR-19	R4611170
Hexachlorobutadiene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Hexane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		21-APR-19	R4611170
Isopropylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
4-Isopropyltoluene	<0.0010		0.0010	mg/L		21-APR-19	R4611170
MEK	<0.020		0.020	mg/L		21-APR-19	R4611170
MIBK	<0.020		0.020	mg/L		21-APR-19	R4611170
MTBE	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Styrene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Tetrachloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Toluene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,3-Trichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,4-Trichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Trichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Trichlorofluoromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
1,2,3-Trichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,4-Trimethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3,5-Trimethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Vinyl Chloride	<0.00050		0.00050	mg/L		21-APR-19	R4611170
M+P-Xylenes	<0.00040		0.00040	mg/L		21-APR-19	R4611170
o-Xylene	<0.00030		0.00030	mg/L		21-APR-19	R4611170
Surrogate: 4-Bromofluorobenzene (SS)	90.8		70-130	%		21-APR-19	R4611170
Surrogate: 1,4-Difluorobenzene (SS)	96.3		70-130	%		21-APR-19	R4611170

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-21 BH9							
Sampled By: CF on 11-APR-19							
Matrix: GW							
Total Metals in Water by CRC ICPMS							
Aluminum (Al)-Total	0.0082		0.0030	mg/L	17-APR-19	17-APR-19	R4605061
Antimony (Sb)-Total	0.00065		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Arsenic (As)-Total	0.00154		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Barium (Ba)-Total	0.0947		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Boron (B)-Total	0.478		0.010	mg/L	17-APR-19	17-APR-19	R4605061
Cadmium (Cd)-Total	0.0000412		0.0000050	mg/L	17-APR-19	17-APR-19	R4605061
Calcium (Ca)-Total	86.2		0.050	mg/L	17-APR-19	17-APR-19	R4605061
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Chromium (Cr)-Total	0.00034		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Cobalt (Co)-Total	0.0583		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Copper (Cu)-Total	0.00447		0.00050	mg/L	17-APR-19	17-APR-19	R4605061
Iron (Fe)-Total	0.058		0.010	mg/L	17-APR-19	17-APR-19	R4605061
Lead (Pb)-Total	0.000115		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Lithium (Li)-Total	0.0425		0.0010	mg/L	17-APR-19	17-APR-19	R4605061
Magnesium (Mg)-Total	53.6		0.0050	mg/L	17-APR-19	17-APR-19	R4605061
Manganese (Mn)-Total	0.127		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Molybdenum (Mo)-Total	0.144		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Nickel (Ni)-Total	0.0233		0.00050	mg/L	17-APR-19	17-APR-19	R4605061
Potassium (K)-Total	18.5		0.050	mg/L	17-APR-19	17-APR-19	R4605061
Phosphorus (P)-Total	0.037		0.030	mg/L	17-APR-19	17-APR-19	R4605061
Rubidium (Rb)-Total	0.00348		0.00020	mg/L	17-APR-19	17-APR-19	R4605061
Selenium (Se)-Total	0.00269		0.000050	mg/L	17-APR-19	17-APR-19	R4605061
Silicon (Si)-Total	10.0		0.10	mg/L	17-APR-19	17-APR-19	R4605061
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Sodium (Na)-Total	429		0.050	mg/L	17-APR-19	17-APR-19	R4605061
Strontium (Sr)-Total	0.407		0.00020	mg/L	17-APR-19	17-APR-19	R4605061
Sulfur (S)-Total	26.8		0.50	mg/L	17-APR-19	17-APR-19	R4605061
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-APR-19	17-APR-19	R4605061
Thallium (Tl)-Total	0.000014		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Tin (Sn)-Total	0.00255		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Titanium (Ti)-Total	0.00048		0.00030	mg/L	17-APR-19	17-APR-19	R4605061
Tungsten (W)-Total	0.00047		0.00010	mg/L	17-APR-19	17-APR-19	R4605061
Uranium (U)-Total	0.0108		0.000010	mg/L	17-APR-19	17-APR-19	R4605061
Vanadium (V)-Total	0.00173		0.00050	mg/L	17-APR-19	17-APR-19	R4605061
Zinc (Zn)-Total	0.0100		0.0030	mg/L	17-APR-19	17-APR-19	R4605061
Zirconium (Zr)-Total	0.000734		0.000060	mg/L	17-APR-19	17-APR-19	R4605061
VOC plus F1 to F4							
CCME PHC F2-F4 in Water							
F2 (C10-C16)	0.79		0.10	mg/L	18-APR-19	24-APR-19	R4611472
F3 (C16-C34)	3.08		0.25	mg/L	18-APR-19	24-APR-19	R4611472
F4 (C34-C50)	<0.25		0.25	mg/L	18-APR-19	24-APR-19	R4611472
Surrogate: 2-Bromobenzotrifluoride	108.4		60-140	%	18-APR-19	24-APR-19	R4611472
CCME Total Hydrocarbons							
F1-BTEX	<0.10		0.10	mg/L		02-MAY-19	
Total Hydrocarbons (C6-C50)	3.88		0.38	mg/L		02-MAY-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	0.00100		0.00050	mg/L		02-MAY-19	
Total Trihalomethanes (THMs)							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-21 BH9							
Sampled By: CF on 11-APR-19							
Matrix: GW							
Total Trihalomethanes (THMs)							
Total THMs	<0.0010		0.0010	mg/L		02-MAY-19	
VOC plus F1 by GCMS							
Acetone	0.070		0.020	mg/L		21-APR-19	R4611170
Benzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromochloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromodichloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromoform	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromomethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
n-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
sec-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
tert-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Carbon disulfide	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Carbon Tetrachloride	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chloroethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
Chloroform	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chloromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
2-Chlorotoluene	<0.020		0.020	mg/L		21-APR-19	R4611170
4-Chlorotoluene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dibromochloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dibromo-3-chloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dibromoethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dibromomethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
1,1-dichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1-dichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
trans-1,2-Dichloroethene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Dichloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3-Dichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
2,2-Dichloropropane	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
1,1-Dichloropropene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
cis-1,3-Dichloropropene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
trans-1,3-Dichloropropene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Ethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
F1	<0.10		0.10	mg/L		21-APR-19	R4611170
Hexachlorobutadiene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Hexane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		21-APR-19	R4611170
Isopropylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
4-Isopropyltoluene	0.103		0.0010	mg/L		21-APR-19	R4611170
MEK	<0.020		0.020	mg/L		21-APR-19	R4611170
MIBK	<0.020		0.020	mg/L		21-APR-19	R4611170
MTBE	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Styrene	<0.00050		0.00050	mg/L		21-APR-19	R4611170

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-21 BH9							
Sampled By: CF on 11-APR-19							
Matrix: GW							
VOC plus F1 by GCMS							
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Tetrachloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Toluene	0.00089		0.00050	mg/L		21-APR-19	R4611170
1,2,3-Trichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,4-Trichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Trichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Trichlorofluoromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
1,2,3-Trichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,4-Trimethylbenzene	0.00284		0.00050	mg/L		21-APR-19	R4611170
1,3,5-Trimethylbenzene	0.00076		0.00050	mg/L		21-APR-19	R4611170
Vinyl Chloride	<0.00050		0.00050	mg/L		21-APR-19	R4611170
M+P-Xylenes	0.00056		0.00040	mg/L		21-APR-19	R4611170
o-Xylene	0.00044		0.00030	mg/L		21-APR-19	R4611170
Surrogate: 4-Bromofluorobenzene (SS)	90.5		70-130	%		21-APR-19	R4611170
Surrogate: 1,4-Difluorobenzene (SS)	95.7		70-130	%		21-APR-19	R4611170
L2257286-22 BH10							
Sampled By: CF on 11-APR-19							
Matrix: GW							
BTEX plus F1-F4							
BTX plus F1 by GCMS							
Benzene	6.94	DLHC	0.025	mg/L		17-APR-19	R4605260
Toluene	9.03	DLHC	0.050	mg/L		17-APR-19	R4605260
Ethyl benzene	0.747	DLHC	0.0025	mg/L		17-APR-19	R4605260
o-Xylene	1.20	DLHC	0.025	mg/L		17-APR-19	R4605260
m+p-Xylenes	2.73	DLHC	0.020	mg/L		17-APR-19	R4605260
F1 (C6-C10)	18.8	DLHC	5.0	mg/L		17-APR-19	R4605260
Surrogate: 4-Bromofluorobenzene (SS)	94.1		70-130	%		17-APR-19	R4605260
CCME PHC F2-F4 in Water							
F2 (C10-C16)	0.61		0.10	mg/L	18-APR-19	24-APR-19	R4611472
F3 (C16-C34)	1.50		0.25	mg/L	18-APR-19	24-APR-19	R4611472
F4 (C34-C50)	1.27		0.25	mg/L	18-APR-19	24-APR-19	R4611472
Surrogate: 2-Bromobenzotrifluoride	112.4		60-140	%	18-APR-19	24-APR-19	R4611472
CCME Total Hydrocarbons							
F1-BTEX	<5.0		5.0	mg/L		26-APR-19	
Total Hydrocarbons (C6-C50)	22.2		5.0	mg/L		26-APR-19	
Sum of Xylene Isomer Concentrations							
Xylenes (Total)	3.93		0.032	mg/L		26-APR-19	
L2257286-23 DUP-W1							
Sampled By: CF on 11-APR-19							
Matrix: GW							
Miscellaneous Parameters							
Xylenes (Total)	<0.00050		0.00050	mg/L		02-MAY-19	
Total THMs	<0.0010		0.0010	mg/L		02-MAY-19	
VOC plus F1 by GCMS							
Acetone	<0.020		0.020	mg/L		21-APR-19	R4611170
Benzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-23 DUP-W1							
Sampled By: CF on 11-APR-19							
Matrix: GW							
VOC plus F1 by GCMS							
Bromochloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromodichloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromoform	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Bromomethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
n-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
sec-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
tert-Butylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Carbon disulfide	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Carbon Tetrachloride	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chloroethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
Chloroform	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Chloromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
2-Chlorotoluene	<0.020		0.020	mg/L		21-APR-19	R4611170
4-Chlorotoluene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dibromochloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dibromo-3-chloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dibromoethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dibromomethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,4-Dichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Dichlorodifluoromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
1,1-dichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1-dichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
cis-1,2-Dichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
trans-1,2-Dichloroethene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Dichloromethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2-Dichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3-Dichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
2,2-Dichloropropane	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
1,1-Dichloropropene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
cis-1,3-Dichloropropene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
trans-1,3-Dichloropropene	<0.0010	DLM	0.0010	mg/L		21-APR-19	R4611170
Ethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
F1	<0.10		0.10	mg/L		21-APR-19	R4611170
Hexachlorobutadiene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Hexane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
2-Hexanone (Methyl butyl ketone)	<0.020		0.020	mg/L		21-APR-19	R4611170
Isopropylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
4-Isopropyltoluene	<0.0010		0.0010	mg/L		21-APR-19	R4611170
MEK	<0.020		0.020	mg/L		21-APR-19	R4611170
MIBK	<0.020		0.020	mg/L		21-APR-19	R4611170
MTBE	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Styrene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,1,2-Tetrachloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,2,2-Tetrachloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Tetrachloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Toluene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,3-Trichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2257286-23 DUP-W1							
Sampled By: CF on 11-APR-19							
Matrix: GW							
VOC plus F1 by GCMS							
1,2,4-Trichlorobenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,1-Trichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,1,2-Trichloroethane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Trichloroethene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Trichlorofluoromethane	<0.0010		0.0010	mg/L		21-APR-19	R4611170
1,2,3-Trichloropropane	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,2,4-Trimethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
1,3,5-Trimethylbenzene	<0.00050		0.00050	mg/L		21-APR-19	R4611170
Vinyl Chloride	<0.00050		0.00050	mg/L		21-APR-19	R4611170
M+P-Xylenes	<0.00040		0.00040	mg/L		21-APR-19	R4611170
o-Xylene	<0.00030		0.00030	mg/L		21-APR-19	R4611170
Surrogate: 4-Bromofluorobenzene (SS)	89.5		70-130	%		21-APR-19	R4611170
Surrogate: 1,4-Difluorobenzene (SS)	95.5		70-130	%		21-APR-19	R4611170

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier Key:

Qualifier	Description
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
EMPC	Estimated Maximum Possible Concentration. Parameter detected but didn't meet all criteria for positive identification.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
BTEXS+F1-HSMS-WP	Soil	BTX plus F1 by GCMS	EPA 8260C

The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

BTEXS+F1-HSMS-WP	Water	BTX plus F1 by GCMS	EPA 8260C / EPA 5021A

The water sample, with added reagents, is heated in a sealed vial to equilibrium. The headspace from the vial is transfered into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.

F1-F4-CALC-WP	Soil	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-S

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-F4-CALC-WP	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F2-F4-FID-WP	Water	CCME PHC F2-F4 in Water	EPA 3511

Petroleum hydrocarbons in water are determined by liquid-liquid micro-scale solvent extraction using a reciprocal shaker extraction apparatus prior to capillary column gas chromatography with flame ionization detection (GC-FID) analysis.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
F2-F4-TMB-FID-WP	Soil	CCME Total Extractable Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001
A soil or sediment sample is extracted with 1:1 hexane/acetone in a tumbler, followed by a silica gel clean up to facilitate separation of the hydrocarbons from other polar extractions. An aliquot of the solvent is analyzed using a gas chromatograph equipped with a flame -ionization detector.			
MET-200.2-CCMS-WP	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020A (mod)
Soil/sediment is dried, disaggregated, and sieved (2 mm). Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS. Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, Tl, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H2S) may be excluded if lost during sampling, storage, or digestion.			
MET-T-CCMS-WP	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod.)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MOISTURE-WP	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
Moisture content in solid matrices is determined gravimetrically after drying to constant weight at 105°C.			
PAH,PANH-WP	Soil	Polyaromatic Hydrocarbons (PAHs)	EPA SW 846/8270-GC/MS
Samples are rotary extracted using a 1:1 mixture of acetone and dichloromethane. Extracts are concentrated and solvent exchanged to toluene. The toluene extract is analyzed by GCMS.			
PH-1:2 CACL2-WP	Soil	pH (1:2 CaCl2)	CSSS 16.3-(0.01 M CACL2 1:2 extraction)
Soil and 0.01M CaCl2 are mixed in a defined ratio. The slurry is allowed to stand, shaken and then allowed to stand again prior to taking the pH measurement of the liquid portion of the extract. The pH is measured by meter.			
THM-SUM-CALC-WP	Water	Total Trihalomethanes (THMs)	CALCULATION
Total Trihalomethanes (THMs) represents the sum of bromodichloromethane, bromoform, chlorodibromomethane and chloroform. For the purpose of calculation, results less than the detection limit (DL) are treated as zero.			
VOC+F1-HSMS-WP	Soil	VOC plus F1 by GCMS	EPA 8260C
The soil methanol extract is added to water and reagents, then heated in a sealed vial to equilibrium. The headspace from the vial is transferred into a gas chromatograph. Target compound concentrations are measured using mass spectrometry detection.			
VOC+F1-HSMS-WP	Water	VOC plus F1 by GCMS	EPA 8260C / EPA 5021A
In this method samples are analyzed using a headspace autosampler interfaced to a dual column gas chromatograph with MS and Flame Ionization detectors.			
XYLENES-SUM-CALC-WP	Soil	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
Total xylenes represents the sum of o-xylene and m&p-xylene.			
XYLENES-SUM-CALC-WP	Water	Sum of Xylene Isomer Concentrations	CALCULATED RESULT
Total xylenes represents the sum of o-xylene and m&p-xylene.			

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA

Chain of Custody Numbers:

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid-adjusted weight
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2257286 Report Date: 02-MAY-19

Client: COLESTAR Environmental Inc.
178 Fincham Avenue
Markham ON L3P 4B3
Contact: DARREN COLEMAN

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEXS+F1-HSMS-WP	**Water**							
Batch R4605260								
WG3030132-2 LCS								
Benzene			108.9		%		70-130	17-APR-19
Toluene			116.4		%		70-130	17-APR-19
Ethyl benzene			125.1		%		70-130	17-APR-19
o-Xylene			124.7		%		70-130	17-APR-19
m+p-Xylenes			124.8		%		70-130	17-APR-19
WG3030132-3 LCS								
F1 (C6-C10)			82.6		%		70-130	17-APR-19
WG3030132-1 MB								
Benzene			<0.00050		mg/L		0.0005	17-APR-19
Toluene			<0.0010		mg/L		0.001	17-APR-19
Ethyl benzene			<0.00050		mg/L		0.0005	17-APR-19
o-Xylene			<0.00030		mg/L		0.0003	17-APR-19
m+p-Xylenes			<0.00050		mg/L		0.0005	17-APR-19
F1 (C6-C10)			<0.10		mg/L		0.1	17-APR-19
Surrogate: 4-Bromofluorobenzene (SS)			85.9		%		70-130	17-APR-19
WG3030132-6 MS		**L2257286-22**						
Benzene			N/A	MS-B	%		-	17-APR-19
Toluene			N/A	MS-B	%		-	17-APR-19
Ethyl benzene			N/A	MS-B	%		-	17-APR-19
o-Xylene			N/A	MS-B	%		-	17-APR-19
m+p-Xylenes			N/A	MS-B	%		-	17-APR-19
F1 (C6-C10)			N/A	MS-B	%		-	17-APR-19
F2-F4-FID-WP	**Water**							
Batch R4611472								
WG3030287-2 LCS								
F2 (C10-C16)			101.9		%		70-130	24-APR-19
F3 (C16-C34)			104.6		%		70-130	24-APR-19
F4 (C34-C50)			112.1		%		70-130	24-APR-19
WG3030287-1 MB								
F2 (C10-C16)			<0.10		mg/L		0.1	24-APR-19
F3 (C16-C34)			<0.25		mg/L		0.25	24-APR-19
F4 (C34-C50)			<0.25		mg/L		0.25	24-APR-19
Surrogate: 2-Bromobenzotrifluoride			102.3		%		60-140	24-APR-19
MET-T-CCMS-WP	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R4605061								
WG3029478-2 LCS								
Aluminum (Al)-Total			103.5		%		80-120	17-APR-19
Antimony (Sb)-Total			102.6		%		80-120	17-APR-19
Arsenic (As)-Total			99.1		%		80-120	17-APR-19
Barium (Ba)-Total			100.0		%		80-120	17-APR-19
Beryllium (Be)-Total			101.7		%		80-120	17-APR-19
Bismuth (Bi)-Total			98.8		%		80-120	17-APR-19
Boron (B)-Total			98.7		%		80-120	17-APR-19
Cadmium (Cd)-Total			101.3		%		80-120	17-APR-19
Calcium (Ca)-Total			102.3		%		80-120	17-APR-19
Cesium (Cs)-Total			105.3		%		80-120	17-APR-19
Chromium (Cr)-Total			102.5		%		80-120	17-APR-19
Cobalt (Co)-Total			100.4		%		80-120	17-APR-19
Copper (Cu)-Total			102.5		%		80-120	17-APR-19
Iron (Fe)-Total			98.3		%		80-120	17-APR-19
Lead (Pb)-Total			102.1		%		80-120	17-APR-19
Lithium (Li)-Total			104.1		%		80-120	17-APR-19
Magnesium (Mg)-Total			113.0		%		80-120	17-APR-19
Manganese (Mn)-Total			98.5		%		80-120	17-APR-19
Molybdenum (Mo)-Total			101.0		%		80-120	17-APR-19
Nickel (Ni)-Total			98.1		%		80-120	17-APR-19
Potassium (K)-Total			98.7		%		80-120	17-APR-19
Phosphorus (P)-Total			105.7		%		80-120	17-APR-19
Rubidium (Rb)-Total			100.6		%		80-120	17-APR-19
Selenium (Se)-Total			101.2		%		80-120	17-APR-19
Silicon (Si)-Total			104.1		%		80-120	17-APR-19
Silver (Ag)-Total			108.2		%		80-120	17-APR-19
Sodium (Na)-Total			106.3		%		80-120	17-APR-19
Strontium (Sr)-Total			106.0		%		80-120	17-APR-19
Sulfur (S)-Total			94.5		%		80-120	17-APR-19
Tellurium (Te)-Total			99.4		%		80-120	17-APR-19
Thallium (Tl)-Total			98.5		%		80-120	17-APR-19
Thorium (Th)-Total			105.0		%		80-120	17-APR-19
Tin (Sn)-Total			100.9		%		80-120	17-APR-19
Titanium (Ti)-Total			99.3		%		80-120	17-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R4605061								
WG3029478-2 LCS								
Tungsten (W)-Total			99.5		%		80-120	17-APR-19
Uranium (U)-Total			106.3		%		80-120	17-APR-19
Vanadium (V)-Total			101.4		%		80-120	17-APR-19
Zinc (Zn)-Total			101.3		%		80-120	17-APR-19
Zirconium (Zr)-Total			102.8		%		80-120	17-APR-19
WG3029478-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	17-APR-19
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	17-APR-19
Arsenic (As)-Total			<0.00010		mg/L		0.0001	17-APR-19
Barium (Ba)-Total			<0.00010		mg/L		0.0001	17-APR-19
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	17-APR-19
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	17-APR-19
Boron (B)-Total			<0.010		mg/L		0.01	17-APR-19
Cadmium (Cd)-Total			<0.000005(		mg/L		0.000005	17-APR-19
Calcium (Ca)-Total			<0.050		mg/L		0.05	17-APR-19
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	17-APR-19
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	17-APR-19
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	17-APR-19
Copper (Cu)-Total			<0.00050		mg/L		0.0005	17-APR-19
Iron (Fe)-Total			<0.010		mg/L		0.01	17-APR-19
Lead (Pb)-Total			<0.000050		mg/L		0.00005	17-APR-19
Lithium (Li)-Total			<0.0010		mg/L		0.001	17-APR-19
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	17-APR-19
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	17-APR-19
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	17-APR-19
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	17-APR-19
Potassium (K)-Total			<0.050		mg/L		0.05	17-APR-19
Phosphorus (P)-Total			<0.030		mg/L		0.03	17-APR-19
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	17-APR-19
Selenium (Se)-Total			<0.000050		mg/L		0.00005	17-APR-19
Silicon (Si)-Total			<0.10		mg/L		0.1	17-APR-19
Silver (Ag)-Total			<0.000010		mg/L		0.00001	17-APR-19
Sodium (Na)-Total			<0.050		mg/L		0.05	17-APR-19
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	17-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WP	**Water**							
Batch R4605061								
WG3029478-1 MB								
Sulfur (S)-Total			<0.50		mg/L		0.5	17-APR-19
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	17-APR-19
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	17-APR-19
Thorium (Th)-Total			<0.00010		mg/L		0.0001	17-APR-19
Tin (Sn)-Total			<0.00010		mg/L		0.0001	17-APR-19
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	17-APR-19
Tungsten (W)-Total			<0.00010		mg/L		0.0001	17-APR-19
Uranium (U)-Total			<0.000010		mg/L		0.00001	17-APR-19
Vanadium (V)-Total			<0.00050		mg/L		0.0005	17-APR-19
Zinc (Zn)-Total			<0.0030		mg/L		0.003	17-APR-19
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	17-APR-19
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-4 DUP		**L2257286-20**						
Acetone		<0.020	<0.020	RPD-NA	mg/L	N/A	30	21-APR-19
Benzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Bromobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Bromochloromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Bromodichloromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Bromoform		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Bromomethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	21-APR-19
n-Butylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
sec-Butylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
tert-Butylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Carbon disulfide		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	21-APR-19
Carbon Tetrachloride		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Chlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Chloroethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	21-APR-19
Chloroform		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Chloromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	21-APR-19
2-Chlorotoluene		<0.020	<0.020	RPD-NA	mg/L	N/A	30	21-APR-19
4-Chlorotoluene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Dibromochloromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,2-Dibromo-3-chloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-4 DUP		**L2257286-20**						
1,2-Dibromoethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Dibromomethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,2-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,3-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,4-Dichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Dichlorodifluoromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	21-APR-19
1,1-dichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,2-Dichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,1-dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
cis-1,2-Dichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
trans-1,2-Dichloroethene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	21-APR-19
Dichloromethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,2-Dichloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,3-Dichloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
2,2-Dichloropropane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	21-APR-19
1,1-Dichloropropene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
cis-1,3-Dichloropropene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	21-APR-19
trans-1,3-Dichloropropene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	21-APR-19
Ethylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
F1		<0.10	<0.10	RPD-NA	mg/L	N/A	30	21-APR-19
Hexachlorobutadiene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Hexane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
2-Hexanone (Methyl butyl ketone)		<0.020	<0.020	RPD-NA	mg/L	N/A	30	21-APR-19
Isopropylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
4-Isopropyltoluene		<0.0010	<0.0010	RPD-NA	mg/L	N/A	30	21-APR-19
MEK		<0.020	<0.020	RPD-NA	mg/L	N/A	30	21-APR-19
MIBK		<0.020	<0.020	RPD-NA	mg/L	N/A	30	21-APR-19
MTBE		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Styrene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,1,1,2-Tetrachloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,1,2,2-Tetrachloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Tetrachloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Toluene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,2,3-Trichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-4 DUP		**L2257286-20**						
1,2,4-Trichlorobenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,1,1-Trichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,1,2-Trichloroethane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Trichloroethene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Trichlorofluoromethane		<0.0010	<0.0010	RPD-NA	mg/L	N/A	50	21-APR-19
1,2,3-Trichloropropane		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,2,4-Trimethylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
1,3,5-Trimethylbenzene		<0.00050	<0.00050	RPD-NA	mg/L	N/A	30	21-APR-19
Vinyl Chloride		<0.00050	<0.00050	RPD-NA	mg/L	N/A	50	21-APR-19
M+P-Xylenes		<0.00040	<0.00040	RPD-NA	mg/L	N/A	30	21-APR-19
o-Xylene		<0.00030	<0.00030	RPD-NA	mg/L	N/A	30	21-APR-19
WG3031126-2 LCS								
Acetone			115.1		%		70-130	20-APR-19
Benzene			105.6		%		70-130	20-APR-19
Bromobenzene			115.1		%		70-130	20-APR-19
Bromochloromethane			100.7		%		70-130	20-APR-19
Bromodichloromethane			91.1		%		70-130	20-APR-19
Bromoform			88.3		%		70-130	20-APR-19
Bromomethane			84.9		%		60-140	20-APR-19
n-Butylbenzene			90.4		%		70-130	20-APR-19
sec-Butylbenzene			118.3		%		70-130	20-APR-19
tert-Butylbenzene			118.6		%		70-130	20-APR-19
Carbon disulfide			90.9		%		70-130	20-APR-19
Carbon Tetrachloride			91.9		%		70-130	20-APR-19
Chlorobenzene			109.7		%		70-130	20-APR-19
Chloroethane			112.1		%		60-140	20-APR-19
Chloroform			107.9		%		70-130	20-APR-19
Chloromethane			98.3		%		60-140	20-APR-19
2-Chlorotoluene			107.3		%		70-130	20-APR-19
4-Chlorotoluene			93.4		%		70-130	20-APR-19
Dibromochloromethane			99.3		%		70-130	20-APR-19
1,2-Dibromo-3-chloropropane			80.3		%		70-130	20-APR-19
1,2-Dibromoethane			115.5		%		70-130	20-APR-19
Dibromomethane			109.0		%		70-130	20-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-2 LCS								
1,2-Dichlorobenzene			103.3		%		70-130	20-APR-19
1,3-Dichlorobenzene			91.9		%		70-130	20-APR-19
1,4-Dichlorobenzene			85.9		%		70-130	20-APR-19
Dichlorodifluoromethane			136.8		%		60-140	20-APR-19
1,1-dichloroethane			103.8		%		70-130	20-APR-19
1,2-Dichloroethane			106.8		%		70-130	20-APR-19
1,1-dichloroethene			88.6		%		70-130	20-APR-19
cis-1,2-Dichloroethene			100.8		%		70-130	20-APR-19
trans-1,2-Dichloroethene			84.4		%		70-130	20-APR-19
Dichloromethane			100.5		%		70-130	20-APR-19
1,2-Dichloropropane			99.4		%		70-130	20-APR-19
1,3-Dichloropropane			118.5		%		70-130	20-APR-19
2,2-Dichloropropane			77.6		%		70-130	20-APR-19
1,1-Dichloropropene			97.2		%		70-130	20-APR-19
cis-1,3-Dichloropropene			61.7	MES	%		70-130	20-APR-19
trans-1,3-Dichloropropene			64.4	MES	%		70-130	20-APR-19
Ethylbenzene			114.6		%		70-130	20-APR-19
Hexachlorobutadiene			109.5		%		70-130	20-APR-19
Hexane			98.7		%		70-130	20-APR-19
2-Hexanone (Methyl butyl ketone)			113.2		%		70-130	20-APR-19
Isopropylbenzene			116.7		%		70-130	20-APR-19
4-Isopropyltoluene			107.7		%		70-130	20-APR-19
MEK			106.9		%		70-130	20-APR-19
MIBK			107.8		%		70-130	20-APR-19
MTBE			107.9		%		70-130	20-APR-19
Styrene			103.8		%		70-130	20-APR-19
1,1,1,2-Tetrachloroethane			110.1		%		70-130	20-APR-19
1,1,2,2-Tetrachloroethane			113.2		%		70-130	20-APR-19
Tetrachloroethene			110.9		%		70-130	20-APR-19
Toluene			115.8		%		70-130	20-APR-19
1,2,3-Trichlorobenzene			92.7		%		70-130	20-APR-19
1,2,4-Trichlorobenzene			87.8		%		70-130	20-APR-19
1,1,1-Trichloroethane			99.1		%		70-130	20-APR-19
1,1,2-Trichloroethane			120.4		%		70-130	20-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-2 LCS								
Trichloroethene			99.9		%		70-130	20-APR-19
Trichlorofluoromethane			105.7		%		60-140	20-APR-19
1,2,3-Trichloropropane			113.3		%		70-130	20-APR-19
1,2,4-Trimethylbenzene			109.0		%		70-130	20-APR-19
1,3,5-Trimethylbenzene			110.2		%		70-130	20-APR-19
Vinyl Chloride			101.3		%		60-140	20-APR-19
M+P-Xylenes			113.0		%		70-130	20-APR-19
o-Xylene			114.9		%		70-130	20-APR-19
WG3031126-3 LCS								
F1			128.0		%		70-130	26-APR-19
WG3031126-1 MB								
Acetone			<0.020		mg/L		0.02	20-APR-19
Benzene			<0.00050		mg/L		0.0005	20-APR-19
Bromobenzene			<0.00050		mg/L		0.0005	20-APR-19
Bromochloromethane			<0.00050		mg/L		0.0005	20-APR-19
Bromodichloromethane			<0.00050		mg/L		0.0005	20-APR-19
Bromoform			<0.00050		mg/L		0.0005	20-APR-19
Bromomethane			<0.0010		mg/L		0.001	20-APR-19
n-Butylbenzene			<0.00050		mg/L		0.0005	20-APR-19
sec-Butylbenzene			<0.00050		mg/L		0.0005	20-APR-19
tert-Butylbenzene			<0.00050		mg/L		0.0005	20-APR-19
Carbon disulfide			<0.00050		mg/L		0.0005	20-APR-19
Carbon Tetrachloride			<0.00050		mg/L		0.0005	20-APR-19
Chlorobenzene			<0.00050		mg/L		0.0005	20-APR-19
Chloroethane			<0.0010		mg/L		0.001	20-APR-19
Chloroform			<0.00050		mg/L		0.0005	20-APR-19
Chloromethane			<0.0010		mg/L		0.001	20-APR-19
2-Chlorotoluene			<0.020		mg/L		0.02	20-APR-19
4-Chlorotoluene			<0.00050		mg/L		0.0005	20-APR-19
Dibromochloromethane			<0.00050		mg/L		0.0005	20-APR-19
1,2-Dibromo-3-chloropropane			<0.00050		mg/L		0.0005	20-APR-19
1,2-Dibromoethane			<0.00050		mg/L		0.0005	20-APR-19
Dibromomethane			<0.00050		mg/L		0.0005	20-APR-19
1,2-Dichlorobenzene			<0.00050		mg/L		0.0005	20-APR-19
1,3-Dichlorobenzene			<0.00050		mg/L		0.0005	20-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-1 MB								
1,4-Dichlorobenzene			<0.00050		mg/L		0.0005	20-APR-19
Dichlorodifluoromethane			<0.0010		mg/L		0.001	20-APR-19
1,1-dichloroethane			<0.00050		mg/L		0.0005	20-APR-19
1,2-Dichloroethane			<0.00050		mg/L		0.0005	20-APR-19
1,1-dichloroethene			<0.00050		mg/L		0.0005	20-APR-19
cis-1,2-Dichloroethene			<0.00050		mg/L		0.0005	20-APR-19
trans-1,2-Dichloroethene			<0.00050		mg/L		0.0005	20-APR-19
Dichloromethane			<0.00050		mg/L		0.0005	20-APR-19
1,2-Dichloropropane			<0.00050		mg/L		0.0005	20-APR-19
1,3-Dichloropropane			<0.00050		mg/L		0.0005	20-APR-19
2,2-Dichloropropane			<0.00050		mg/L		0.0005	20-APR-19
1,1-Dichloropropene			<0.00050		mg/L		0.0005	20-APR-19
cis-1,3-Dichloropropene			<0.00050		mg/L		0.0005	20-APR-19
trans-1,3-Dichloropropene			<0.00050		mg/L		0.0005	20-APR-19
Ethylbenzene			<0.00050		mg/L		0.0005	20-APR-19
F1			<0.10		mg/L		0.1	20-APR-19
Hexachlorobutadiene			<0.00050		mg/L		0.0005	20-APR-19
Hexane			<0.00050		mg/L		0.0005	20-APR-19
2-Hexanone (Methyl butyl ketone)			<0.020		mg/L		0.02	20-APR-19
Isopropylbenzene			<0.00050		mg/L		0.0005	20-APR-19
4-Isopropyltoluene			<0.0010		mg/L		0.001	20-APR-19
MEK			<0.020		mg/L		0.02	20-APR-19
MIBK			<0.020		mg/L		0.02	20-APR-19
MTBE			<0.00050		mg/L		0.0005	20-APR-19
Styrene			<0.00050		mg/L		0.0005	20-APR-19
1,1,1,2-Tetrachloroethane			<0.00050		mg/L		0.0005	20-APR-19
1,1,2,2-Tetrachloroethane			<0.00050		mg/L		0.0005	20-APR-19
Tetrachloroethene			<0.00050		mg/L		0.0005	20-APR-19
Toluene			<0.00050		mg/L		0.0005	20-APR-19
1,2,3-Trichlorobenzene			<0.00050		mg/L		0.0005	20-APR-19
1,2,4-Trichlorobenzene			<0.00050		mg/L		0.0005	20-APR-19
1,1,1-Trichloroethane			<0.00050		mg/L		0.0005	20-APR-19
1,1,2-Trichloroethane			<0.00050		mg/L		0.0005	20-APR-19
Trichloroethene			<0.00050		mg/L		0.0005	20-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Water**							
Batch R4611170								
WG3031126-1 MB								
Trichlorofluoromethane			<0.0010		mg/L		0.001	20-APR-19
1,2,3-Trichloropropane			<0.00050		mg/L		0.0005	20-APR-19
1,2,4-Trimethylbenzene			<0.00050		mg/L		0.0005	20-APR-19
1,3,5-Trimethylbenzene			<0.00050		mg/L		0.0005	20-APR-19
Vinyl Chloride			<0.00050		mg/L		0.0005	20-APR-19
M+P-Xylenes			<0.00040		mg/L		0.0004	20-APR-19
o-Xylene			<0.00030		mg/L		0.0003	20-APR-19
Surrogate: 4-Bromofluorobenzene (SS)			96.9		%		70-130	20-APR-19
Surrogate: 1,4-Difluorobenzene (SS)			99.0		%		70-130	20-APR-19
BTEXS+F1-HSMS-WP	**Soil**							
Batch R4602123								
WG3028308-2 LCS								
Benzene			113.2		%		70-130	16-APR-19
Toluene			112.4		%		70-130	16-APR-19
Ethyl benzene			118.6		%		70-130	16-APR-19
o-Xylene			120.1		%		70-130	16-APR-19
m+p-Xylenes			123.7		%		70-130	16-APR-19
WG3028308-3 LCS								
F1 (C6-C10)			129.7		%		70-130	16-APR-19
WG3028308-1 MB								
Benzene			<0.0050		mg/kg		0.005	16-APR-19
Toluene			<0.050		mg/kg		0.05	16-APR-19
Ethyl benzene			<0.015		mg/kg		0.015	16-APR-19
o-Xylene			<0.050		mg/kg		0.05	16-APR-19
m+p-Xylenes			<0.050		mg/kg		0.05	16-APR-19
F1 (C6-C10)			<10		mg/kg		10	16-APR-19
Surrogate: 4-Bromofluorobenzene (SS)			98.6		%		70-130	16-APR-19
F2-F4-TMB-FID-WP	**Soil**							
Batch R4611946								
WG3029378-4 DUP		**L2257286-1**						
F2 (C10-C16)		1120	937		mg/kg	18	40	17-APR-19
F3 (C16-C34)		517	426		mg/kg	19	40	17-APR-19
F4 (C34-C50)		<50	<50	RPD-NA	mg/kg	N/A	40	17-APR-19
WG3029378-3 IRM		**ALS PHC RM3**						
F2 (C10-C16)			103.6		%		70-130	17-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-TMB-FID-WP	**Soil**							
Batch R4611946								
WG3029378-3 IRM		**ALS PHC RM3**						
F3 (C16-C34)			94.9		%		70-130	17-APR-19
F4 (C34-C50)			100.6		%		70-130	17-APR-19
WG3029378-2 LCS								
F2 (C10-C16)			113.0		%		70-130	17-APR-19
F3 (C16-C34)			104.9		%		70-130	17-APR-19
F4 (C34-C50)			122.0		%		70-130	17-APR-19
WG3029378-1 MB								
F2 (C10-C16)			<25		mg/kg		25	17-APR-19
F3 (C16-C34)			<50		mg/kg		50	17-APR-19
F4 (C34-C50)			<50		mg/kg		50	17-APR-19
Surrogate: 2-Bromobenzotrifluoride			104.3		%		60-140	17-APR-19
MET-200.2-CCMS-WP	**Soil**							
Batch R4601715								
WG3027831-4 CRM		**CANMET TILL-1**						
Aluminum (Al)			103.5		%		70-130	15-APR-19
Antimony (Sb)			105.5		%		70-130	15-APR-19
Arsenic (As)			101.2		%		70-130	15-APR-19
Barium (Ba)			97.3		%		70-130	15-APR-19
Beryllium (Be)			103.0		%		70-130	15-APR-19
Boron (B)			2.0		mg/kg		0-8.2	15-APR-19
Bismuth (Bi)			95.2		%		70-130	15-APR-19
Cadmium (Cd)			102.7		%		70-130	15-APR-19
Calcium (Ca)			86.9		%		70-130	15-APR-19
Chromium (Cr)			92.2		%		70-130	15-APR-19
Cobalt (Co)			96.2		%		70-130	15-APR-19
Copper (Cu)			99.0		%		70-130	15-APR-19
Iron (Fe)			96.4		%		70-130	15-APR-19
Lead (Pb)			100.2		%		70-130	15-APR-19
Lithium (Li)			92.8		%		70-130	15-APR-19
Magnesium (Mg)			107.6		%		70-130	15-APR-19
Manganese (Mn)			105.1		%		70-130	15-APR-19
Molybdenum (Mo)			101.9		%		70-130	15-APR-19
Nickel (Ni)			96.3		%		70-130	15-APR-19
Phosphorus (P)			99.6		%		70-130	15-APR-19
Potassium (K)			79.2		%		70-130	15-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WP	**Soil**							
Batch R4601715								
WG3027831-4 CRM		**CANMET TILL-1**						
Selenium (Se)			0.26		mg/kg		0.12-0.52	15-APR-19
Silver (Ag)			0.23		mg/kg		0.12-0.32	15-APR-19
Sodium (Na)			81.0		%		70-130	15-APR-19
Strontium (Sr)			92.0		%		70-130	15-APR-19
Thallium (Tl)			0.116		mg/kg		0.075-0.175	15-APR-19
Tin (Sn)			1.0		mg/kg		0-3.1	15-APR-19
Titanium (Ti)			81.1		%		70-130	15-APR-19
Tungsten (W)			0.15		mg/kg		0-0.66	15-APR-19
Uranium (U)			97.6		%		70-130	15-APR-19
Vanadium (V)			93.4		%		70-130	15-APR-19
Zinc (Zn)			97.5		%		70-130	15-APR-19
Zirconium (Zr)			0.7		mg/kg		0-1.8	15-APR-19
WG3027831-2 LCS								
Aluminum (Al)			109.6		%		80-120	15-APR-19
Antimony (Sb)			103.7		%		80-120	15-APR-19
Arsenic (As)			104.0		%		80-120	15-APR-19
Barium (Ba)			102.5		%		80-120	15-APR-19
Beryllium (Be)			103.9		%		80-120	15-APR-19
Boron (B)			103.7		%		80-120	15-APR-19
Bismuth (Bi)			101.2		%		80-120	15-APR-19
Cadmium (Cd)			103.1		%		80-120	15-APR-19
Calcium (Ca)			101.1		%		80-120	15-APR-19
Chromium (Cr)			104.4		%		80-120	15-APR-19
Cobalt (Co)			103.3		%		80-120	15-APR-19
Copper (Cu)			103.7		%		80-120	15-APR-19
Iron (Fe)			95.1		%		80-120	15-APR-19
Lead (Pb)			103.0		%		80-120	15-APR-19
Lithium (Li)			99.6		%		80-120	15-APR-19
Magnesium (Mg)			119.3		%		80-120	15-APR-19
Manganese (Mn)			104.1		%		80-120	15-APR-19
Molybdenum (Mo)			106.2		%		80-120	15-APR-19
Nickel (Ni)			102.5		%		80-120	15-APR-19
Phosphorus (P)			108.4		%		80-120	15-APR-19
Potassium (K)			104.4		%		80-120	15-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WP	**Soil**							
Batch R4601715								
WG3027831-2 LCS								
Selenium (Se)			102.4		%		80-120	15-APR-19
Silver (Ag)			101.3		%		80-120	15-APR-19
Sodium (Na)			108.2		%		80-120	15-APR-19
Strontium (Sr)			106.9		%		80-120	15-APR-19
Sulfur (S)			111.2		%		70-130	15-APR-19
Thallium (Tl)			101.3		%		80-120	15-APR-19
Tin (Sn)			103.2		%		80-120	15-APR-19
Titanium (Ti)			103.0		%		80-120	15-APR-19
Tungsten (W)			101.1		%		70-130	15-APR-19
Uranium (U)			105.5		%		80-120	15-APR-19
Vanadium (V)			104.9		%		80-120	15-APR-19
Zinc (Zn)			102.4		%		80-120	15-APR-19
Zirconium (Zr)			101.7		%		80-120	15-APR-19
WG3027831-1 MB								
Aluminum (Al)			<50		mg/kg		50	15-APR-19
Antimony (Sb)			<0.10		mg/kg		0.1	15-APR-19
Arsenic (As)			<0.10		mg/kg		0.1	15-APR-19
Barium (Ba)			<0.50		mg/kg		0.5	15-APR-19
Beryllium (Be)			<0.10		mg/kg		0.1	15-APR-19
Boron (B)			<5.0		mg/kg		5	15-APR-19
Bismuth (Bi)			<0.20		mg/kg		0.2	15-APR-19
Cadmium (Cd)			<0.020		mg/kg		0.02	15-APR-19
Calcium (Ca)			<50		mg/kg		50	15-APR-19
Chromium (Cr)			<0.50		mg/kg		0.5	15-APR-19
Cobalt (Co)			<0.10		mg/kg		0.1	15-APR-19
Copper (Cu)			<0.50		mg/kg		0.5	15-APR-19
Iron (Fe)			<50		mg/kg		50	15-APR-19
Lead (Pb)			<0.50		mg/kg		0.5	15-APR-19
Lithium (Li)			<2.0		mg/kg		2	15-APR-19
Magnesium (Mg)			<20		mg/kg		20	15-APR-19
Manganese (Mn)			<1.0		mg/kg		1	15-APR-19
Molybdenum (Mo)			<0.10		mg/kg		0.1	15-APR-19
Nickel (Ni)			<0.50		mg/kg		0.5	15-APR-19
Phosphorus (P)			<50		mg/kg		50	15-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WP	**Soil**							
Batch R4601715								
WG3027831-1 MB								
Potassium (K)			<100		mg/kg		100	15-APR-19
Selenium (Se)			<0.20		mg/kg		0.2	15-APR-19
Silver (Ag)			<0.10		mg/kg		0.1	15-APR-19
Sodium (Na)			<50		mg/kg		50	15-APR-19
Strontium (Sr)			<0.50		mg/kg		0.5	15-APR-19
Sulfur (S)			<1000		mg/kg		1000	15-APR-19
Thallium (Tl)			<0.050		mg/kg		0.05	15-APR-19
Tin (Sn)			<2.0		mg/kg		2	15-APR-19
Titanium (Ti)			<1.0		mg/kg		1	15-APR-19
Tungsten (W)			<0.50		mg/kg		0.5	15-APR-19
Uranium (U)			<0.050		mg/kg		0.05	15-APR-19
Vanadium (V)			<0.20		mg/kg		0.2	15-APR-19
Zinc (Zn)			<2.0		mg/kg		2	15-APR-19
Zirconium (Zr)			<1.0		mg/kg		1	15-APR-19
MOISTURE-WP	**Soil**							
Batch R4601752								
WG3027573-3 DUP		**L2257286-1**						
Moisture		22.3	22.5		%	1.0	20	15-APR-19
WG3027573-2 LCS								
Moisture			100.1		%		90-110	15-APR-19
WG3027573-1 MB								
Moisture			<0.10		%		0.1	15-APR-19
PAH,PANH-WP	**Soil**							
Batch R4617929								
WG3031125-3 DUP		**L2257286-8**						
1-Methyl Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
2-Methyl Naphthalene		<0.010	0.011	RPD-NA	mg/kg	N/A	50	29-APR-19
Acenaphthene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	29-APR-19
Acenaphthylene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	29-APR-19
Acridine		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Anthracene		<0.0040	<0.0040	RPD-NA	mg/kg	N/A	50	29-APR-19
Benzo(a)anthracene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Benzo(a)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Benzo(b&j)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Benzo(g,h,i)perylene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R4617929								
WG3031125-3 DUP		**L2257286-8**						
Benzo(k)fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Chrysene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Dibenzo(a,h)anthracene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	29-APR-19
Fluoranthene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Fluorene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Indeno(1,2,3-cd)pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Naphthalene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Phenanthrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Pyrene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
Quinoline		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	29-APR-19
WG3031125-4 IRM		**ALS PAH RM2**						
1-Methyl Naphthalene			81.3		%		65-130	29-APR-19
2-Methyl Naphthalene			83.1		%		65-130	29-APR-19
Acenaphthene			104.1		%		65-130	29-APR-19
Acenaphthylene			95.7		%		65-130	29-APR-19
Anthracene			108.6		%		65-130	29-APR-19
Benzo(a)anthracene			95.4		%		65-130	29-APR-19
Benzo(a)pyrene			96.4		%		65-130	29-APR-19
Benzo(b&j)fluoranthene			84.6		%		65-130	29-APR-19
Benzo(g,h,i)perylene			89.4		%		65-130	29-APR-19
Benzo(k)fluoranthene			70.5		%		65-130	29-APR-19
Chrysene			122.5		%		65-130	29-APR-19
Dibenzo(a,h)anthracene			79.2		%		65-130	29-APR-19
Fluoranthene			80.9		%		65-130	29-APR-19
Fluorene			88.0		%		65-130	29-APR-19
Indeno(1,2,3-cd)pyrene			97.2		%		65-130	29-APR-19
Naphthalene			102.2		%		65-130	29-APR-19
Phenanthrene			98.5		%		65-130	29-APR-19
Pyrene			82.0		%		65-130	29-APR-19
WG3031125-2 LCS								
1-Methyl Naphthalene			90.2		%		60-130	29-APR-19
2-Methyl Naphthalene			89.3		%		60-130	29-APR-19
Acenaphthene			90.9		%		60-130	29-APR-19
Acenaphthylene			78.8		%		60-130	29-APR-19
Acridine			119.0		%		60-130	29-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R4617929								
WG3031125-2 LCS								
Anthracene			86.2		%		60-130	29-APR-19
Benzo(a)anthracene			98.4		%		60-130	29-APR-19
Benzo(a)pyrene			114.6		%		60-130	29-APR-19
Benzo(b&j)fluoranthene			107.3		%		60-130	29-APR-19
Benzo(g,h,i)perylene			106.4		%		60-130	29-APR-19
Benzo(k)fluoranthene			110.9		%		60-130	29-APR-19
Chrysene			114.7		%		60-130	29-APR-19
Dibenzo(a,h)anthracene			100.2		%		60-130	29-APR-19
Fluoranthene			104.4		%		60-130	29-APR-19
Fluorene			98.5		%		60-130	29-APR-19
Indeno(1,2,3-cd)pyrene			93.3		%		60-130	29-APR-19
Naphthalene			107.1		%		50-130	29-APR-19
Phenanthrene			115.8		%		60-130	29-APR-19
Pyrene			104.1		%		60-130	29-APR-19
Quinoline			92.5		%		60-130	29-APR-19
WG3031125-1 MB								
1-Methyl Naphthalene			<0.010		mg/kg		0.01	29-APR-19
2-Methyl Naphthalene			<0.010		mg/kg		0.01	29-APR-19
Acenaphthene			<0.0050		mg/kg		0.005	29-APR-19
Acenaphthylene			<0.0050		mg/kg		0.005	29-APR-19
Acridine			<0.010		mg/kg		0.01	29-APR-19
Anthracene			<0.0040		mg/kg		0.004	29-APR-19
Benzo(a)anthracene			<0.010		mg/kg		0.01	29-APR-19
Benzo(a)pyrene			<0.010		mg/kg		0.01	29-APR-19
Benzo(b&j)fluoranthene			<0.010		mg/kg		0.01	29-APR-19
Benzo(g,h,i)perylene			<0.010		mg/kg		0.01	29-APR-19
Benzo(k)fluoranthene			<0.010		mg/kg		0.01	29-APR-19
Chrysene			<0.010		mg/kg		0.01	29-APR-19
Dibenzo(a,h)anthracene			<0.0050		mg/kg		0.005	29-APR-19
Fluoranthene			<0.010		mg/kg		0.01	29-APR-19
Fluorene			<0.010		mg/kg		0.01	29-APR-19
Indeno(1,2,3-cd)pyrene			<0.010		mg/kg		0.01	29-APR-19
Naphthalene			<0.010		mg/kg		0.01	29-APR-19
Phenanthrene			<0.010		mg/kg		0.01	29-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH,PANH-WP	**Soil**							
Batch R4617929								
WG3031125-1 MB								
Pyrene			<0.010		mg/kg		0.01	29-APR-19
Quinoline			<0.010		mg/kg		0.01	29-APR-19
Surrogate: Acenaphthene d10			76.8		%		60-130	29-APR-19
Surrogate: Chrysene d12			105.7		%		60-130	29-APR-19
Surrogate: Naphthalene d8			74.1		%		50-130	29-APR-19
Surrogate: Phenanthrene d10			89.8		%		60-130	29-APR-19
PH-1:2 CACL2-WP	**Soil**							
Batch R4605558								
WG3030682-2 DUP		**L2257286-8**						
pH (1:2 CaCl2)		7.99	8.03	J	pH	0.04	0.3	18-APR-19
WG3030682-1 IRM		**SRS-1704**						
pH (1:2 CaCl2)			5.66		pH		5.43-6.03	18-APR-19
WG3030682-3 LCS								
pH (1:2 CaCl2)			7.40		pH		7.2-7.6	18-APR-19
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-3 DUP		**L2257286-12**						
Acetone		<0.50	<0.50	RPD-NA	mg/kg	N/A	50	21-APR-19
Benzene		<0.0050	<0.0050	RPD-NA	mg/kg	N/A	50	21-APR-19
Bromobenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
Bromochloromethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
Bromodichloromethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
Bromoform		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
Bromomethane		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
n-Butylbenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
sec-Butylbenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
tert-Butylbenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
Carbon disulfide		<0.040	<0.040	RPD-NA	mg/kg	N/A	50	21-APR-19
Carbon Tetrachloride		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
Chlorobenzene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
Chloroethane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
Chloroform		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
Chloromethane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
2-Chlorotoluene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
4-Chlorotoluene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-3 DUP		**L2257286-12**						
Dibromochloromethane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2-Dibromo-3-chloropropane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
Dibromomethane		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2-Dichlorobenzene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,3-Dichlorobenzene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,4-Dichlorobenzene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
Dichlorodifluoromethane		<0.030	<0.030	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1-dichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2-Dichloroethane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1-dichloroethene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
cis-1,2-Dichloroethene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
trans-1,2-Dichloroethene		<0.12	<0.12	RPD-NA	mg/kg	N/A	50	21-APR-19
Dichloromethane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2-Dichloropropane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,3-Dichloropropane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
2,2-Dichloropropane		<0.20	<0.20	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1-Dichloropropene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
cis-1,3-Dichloropropene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
trans-1,3-Dichloropropene		<0.040	<0.040	RPD-NA	mg/kg	N/A	50	21-APR-19
Ethylbenzene		<0.015	<0.015	RPD-NA	mg/kg	N/A	50	21-APR-19
F1		16	19		mg/kg	18	50	21-APR-19
Hexachlorobutadiene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
Hexane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
2-Hexanone (Methyl butyl ketone)		<0.20	<0.20	RPD-NA	mg/kg	N/A	50	21-APR-19
Isopropylbenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
4-Isopropyltoluene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
MEK		<0.50	<0.50	RPD-NA	mg/kg	N/A	50	21-APR-19
MIBK		<0.20	<0.20	RPD-NA	mg/kg	N/A	50	21-APR-19
MTBE		<0.20	<0.20	RPD-NA	mg/kg	N/A	50	21-APR-19
Styrene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1,1,2-Tetrachloroethane		<0.0080	<0.0080	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1,2,2-Tetrachloroethane		<0.0080	<0.0080	RPD-NA	mg/kg	N/A	50	21-APR-19
Tetrachloroethene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-3 DUP		**L2257286-12**						
Toluene		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2,3-Trichlorobenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2,4-Trichlorobenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
1,1,2-Trichloroethane		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
Trichloroethene		<0.010	<0.010	RPD-NA	mg/kg	N/A	50	21-APR-19
Trichlorofluoromethane		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2,3-Trichloropropane		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
1,2,4-Trimethylbenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
1,3,5-Trimethylbenzene		<0.10	<0.10	RPD-NA	mg/kg	N/A	50	21-APR-19
Vinyl Chloride		<0.050	<0.050	RPD-NA	mg/kg	N/A	50	21-APR-19
M+P-Xylenes		<0.040	<0.040	RPD-NA	mg/kg	N/A	50	21-APR-19
o-Xylene		<0.020	<0.020	RPD-NA	mg/kg	N/A	50	21-APR-19
WG3030193-2 LCS								
Acetone			98.7		%		70-130	19-APR-19
Benzene			96.0		%		70-130	19-APR-19
Bromobenzene			96.0		%		70-130	19-APR-19
Bromochloromethane			92.1		%		70-130	19-APR-19
Bromodichloromethane			94.0		%		70-130	19-APR-19
Bromoform			94.4		%		70-130	19-APR-19
Bromomethane			76.2		%		60-140	19-APR-19
n-Butylbenzene			80.5		%		70-130	19-APR-19
sec-Butylbenzene			86.5		%		70-130	19-APR-19
tert-Butylbenzene			88.4		%		70-130	19-APR-19
Carbon disulfide			85.1		%		70-130	19-APR-19
Carbon Tetrachloride			85.6		%		70-130	19-APR-19
Chlorobenzene			88.8		%		70-130	19-APR-19
Chloroethane			90.7		%		60-140	19-APR-19
Chloroform			99.0		%		70-130	19-APR-19
Chloromethane			72.2		%		60-140	19-APR-19
2-Chlorotoluene			87.2		%		70-130	19-APR-19
4-Chlorotoluene			82.6		%		70-130	19-APR-19
Dibromochloromethane			94.2		%		70-130	19-APR-19
1,2-Dibromo-3-chloropropane			96.5		%		70-130	19-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-2 LCS								
1,2-Dibromoethane			96.8		%		70-130	19-APR-19
Dibromomethane			103.3		%		70-130	19-APR-19
1,2-Dichlorobenzene			96.3		%		70-130	19-APR-19
1,3-Dichlorobenzene			89.4		%		70-130	19-APR-19
1,4-Dichlorobenzene			86.8		%		70-130	19-APR-19
Dichlorodifluoromethane			64.0		%		60-140	19-APR-19
1,1-dichloroethane			94.5		%		70-130	19-APR-19
1,2-Dichloroethane			103.9		%		70-130	19-APR-19
1,1-dichloroethene			75.0		%		70-130	19-APR-19
cis-1,2-Dichloroethene			92.1		%		70-130	19-APR-19
trans-1,2-Dichloroethene			83.4		%		70-130	19-APR-19
Dichloromethane			91.9		%		60-140	19-APR-19
1,2-Dichloropropane			94.8		%		70-130	19-APR-19
1,3-Dichloropropane			96.6		%		70-130	19-APR-19
2,2-Dichloropropane			93.6		%		70-130	19-APR-19
1,1-Dichloropropene			87.8		%		70-130	19-APR-19
cis-1,3-Dichloropropene			88.5		%		70-130	19-APR-19
trans-1,3-Dichloropropene			88.3		%		70-130	19-APR-19
Ethylbenzene			87.9		%		70-130	19-APR-19
Hexachlorobutadiene			81.0		%		70-130	19-APR-19
Hexane			77.7		%		70-130	19-APR-19
2-Hexanone (Methyl butyl ketone)			101.1		%		70-130	19-APR-19
Isopropylbenzene			86.8		%		70-130	19-APR-19
4-Isopropyltoluene			83.1		%		70-130	19-APR-19
MEK			103.0		%		70-130	19-APR-19
MIBK			109.7		%		70-130	19-APR-19
MTBE			101.5		%		70-130	19-APR-19
Styrene			88.4		%		70-130	19-APR-19
1,1,1,2-Tetrachloroethane			95.3		%		70-130	19-APR-19
1,1,2,2-Tetrachloroethane			99.2		%		70-130	19-APR-19
Tetrachloroethene			84.1		%		70-130	19-APR-19
Toluene			90.0		%		70-130	19-APR-19
1,2,3-Trichlorobenzene			89.8		%		70-130	19-APR-19
1,2,4-Trichlorobenzene			84.4		%		70-130	19-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-2 LCS								
1,1,1-Trichloroethane			87.7		%		70-130	19-APR-19
1,1,2-Trichloroethane			98.4		%		70-130	19-APR-19
Trichloroethene			93.1		%		70-130	19-APR-19
Trichlorofluoromethane			79.5		%		60-140	19-APR-19
1,2,3-Trichloropropane			96.1		%		70-130	19-APR-19
1,2,4-Trimethylbenzene			86.6		%		70-130	19-APR-19
1,3,5-Trimethylbenzene			86.7		%		70-130	19-APR-19
Vinyl Chloride			73.9		%		60-140	19-APR-19
M+P-Xylenes			90.0		%		70-130	19-APR-19
o-Xylene			89.4		%		70-130	19-APR-19
WG3030193-4 LCS								
F1			102.4		%		70-130	19-APR-19
WG3030193-1 MB								
Acetone			<0.50		mg/kg		0.5	20-APR-19
Benzene			<0.0050		mg/kg		0.005	20-APR-19
Bromobenzene			<0.10		mg/kg		0.1	20-APR-19
Bromochloromethane			<0.10		mg/kg		0.1	20-APR-19
Bromodichloromethane			<0.050		mg/kg		0.05	20-APR-19
Bromoform			<0.020		mg/kg		0.02	20-APR-19
Bromomethane			<0.010		mg/kg		0.01	20-APR-19
n-Butylbenzene			<0.10		mg/kg		0.1	20-APR-19
sec-Butylbenzene			<0.10		mg/kg		0.1	20-APR-19
tert-Butylbenzene			<0.10		mg/kg		0.1	20-APR-19
Carbon disulfide			<0.020		mg/kg		0.02	20-APR-19
Carbon Tetrachloride			<0.010		mg/kg		0.01	20-APR-19
Chlorobenzene			<0.020		mg/kg		0.02	20-APR-19
Chloroethane			<0.020		mg/kg		0.02	20-APR-19
Chloroform			<0.010		mg/kg		0.01	20-APR-19
Chloromethane			<0.020		mg/kg		0.02	20-APR-19
2-Chlorotoluene			<0.10		mg/kg		0.1	20-APR-19
4-Chlorotoluene			<0.10		mg/kg		0.1	20-APR-19
Dibromochloromethane			<0.020		mg/kg		0.02	20-APR-19
1,2-Dibromo-3-chloropropane			<0.10		mg/kg		0.1	20-APR-19
1,2-Dibromoethane			<0.050		mg/kg		0.05	20-APR-19
Dibromomethane			<0.010		mg/kg		0.01	20-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-1 MB								
1,2-Dichlorobenzene			<0.020		mg/kg		0.02	20-APR-19
1,3-Dichlorobenzene			<0.020		mg/kg		0.02	20-APR-19
1,4-Dichlorobenzene			<0.010		mg/kg		0.01	20-APR-19
Dichlorodifluoromethane			<0.030		mg/kg		0.03	20-APR-19
1,1-dichloroethane			<0.050		mg/kg		0.05	20-APR-19
1,2-Dichloroethane			<0.020		mg/kg		0.02	20-APR-19
1,1-dichloroethene			<0.050		mg/kg		0.05	20-APR-19
cis-1,2-Dichloroethene			<0.020		mg/kg		0.02	20-APR-19
trans-1,2-Dichloroethene			<0.060		mg/kg		0.06	20-APR-19
Dichloromethane			<0.10		mg/kg		0.1	20-APR-19
1,2-Dichloropropane			<0.020		mg/kg		0.02	20-APR-19
1,3-Dichloropropane			<0.020		mg/kg		0.02	20-APR-19
2,2-Dichloropropane			<0.10		mg/kg		0.1	20-APR-19
1,1-Dichloropropene			<0.010		mg/kg		0.01	20-APR-19
cis-1,3-Dichloropropene			<0.050		mg/kg		0.05	20-APR-19
trans-1,3-Dichloropropene			<0.020		mg/kg		0.02	20-APR-19
Ethylbenzene			<0.015		mg/kg		0.015	20-APR-19
F1			<10		mg/kg		10	20-APR-19
Hexachlorobutadiene			<0.010		mg/kg		0.01	20-APR-19
Hexane			<0.050		mg/kg		0.05	20-APR-19
2-Hexanone (Methyl butyl ketone)			<0.20		mg/kg		0.2	20-APR-19
Isopropylbenzene			<0.10		mg/kg		0.1	20-APR-19
4-Isopropyltoluene			<0.10		mg/kg		0.1	20-APR-19
MEK			<0.50		mg/kg		0.5	20-APR-19
MIBK			<0.20		mg/kg		0.2	20-APR-19
MTBE			<0.20		mg/kg		0.2	20-APR-19
Styrene			<0.020		mg/kg		0.02	20-APR-19
1,1,1,2-Tetrachloroethane			<0.0080		mg/kg		0.008	20-APR-19
1,1,2,2-Tetrachloroethane			<0.0080		mg/kg		0.008	20-APR-19
Tetrachloroethene			<0.020		mg/kg		0.02	20-APR-19
Toluene			<0.050		mg/kg		0.05	20-APR-19
1,2,3-Trichlorobenzene			<0.10		mg/kg		0.1	20-APR-19
1,2,4-Trichlorobenzene			<0.10		mg/kg		0.1	20-APR-19
1,1,1-Trichloroethane			<0.050		mg/kg		0.05	20-APR-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC+F1-HSMS-WP	**Soil**							
Batch R4611415								
WG3030193-1 MB								
1,1,2-Trichloroethane			<0.010		mg/kg		0.01	20-APR-19
Trichloroethene			<0.010		mg/kg		0.01	20-APR-19
Trichlorofluoromethane			<0.020		mg/kg		0.02	20-APR-19
1,2,3-Trichloropropane			<0.10		mg/kg		0.1	20-APR-19
1,2,4-Trimethylbenzene			<0.10		mg/kg		0.1	20-APR-19
1,3,5-Trimethylbenzene			<0.10		mg/kg		0.1	20-APR-19
Vinyl Chloride			<0.050		mg/kg		0.05	20-APR-19
M+P-Xylenes			<0.040		mg/kg		0.04	20-APR-19
o-Xylene			<0.020		mg/kg		0.02	20-APR-19
Surrogate: 1,4-Difluorobenzene (SS)			87.0		%		70-130	20-APR-19
Surrogate: 4-Bromofluorobenzene (SS)			89.9		%		70-130	20-APR-19

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

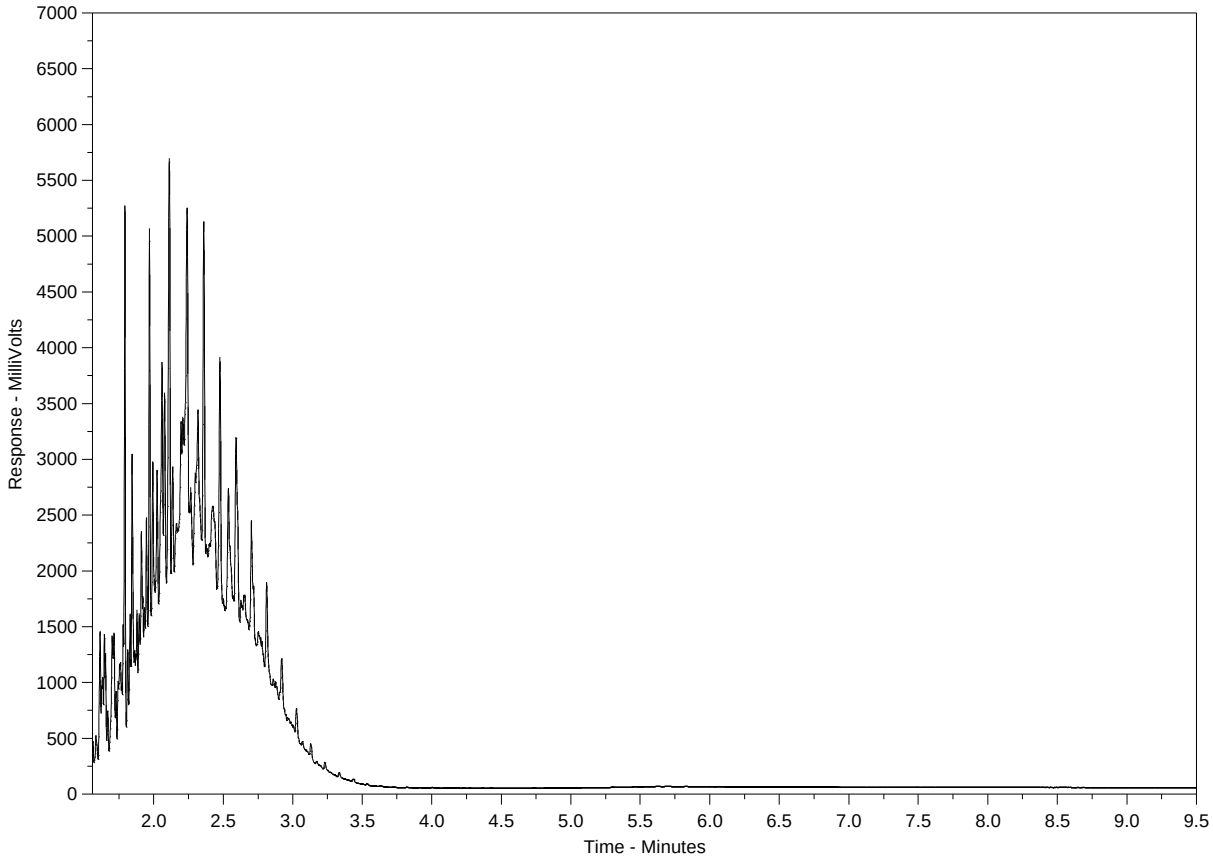
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

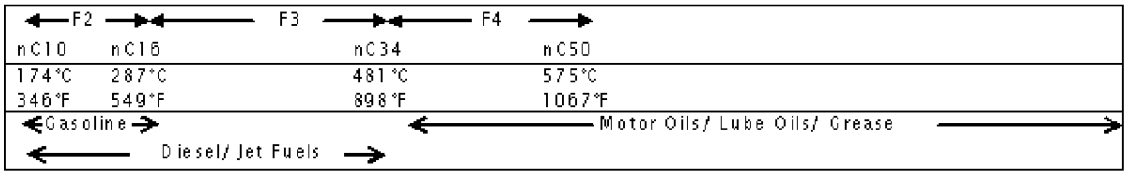
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-1
Client Sample ID: BH1, 10'-12.5'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

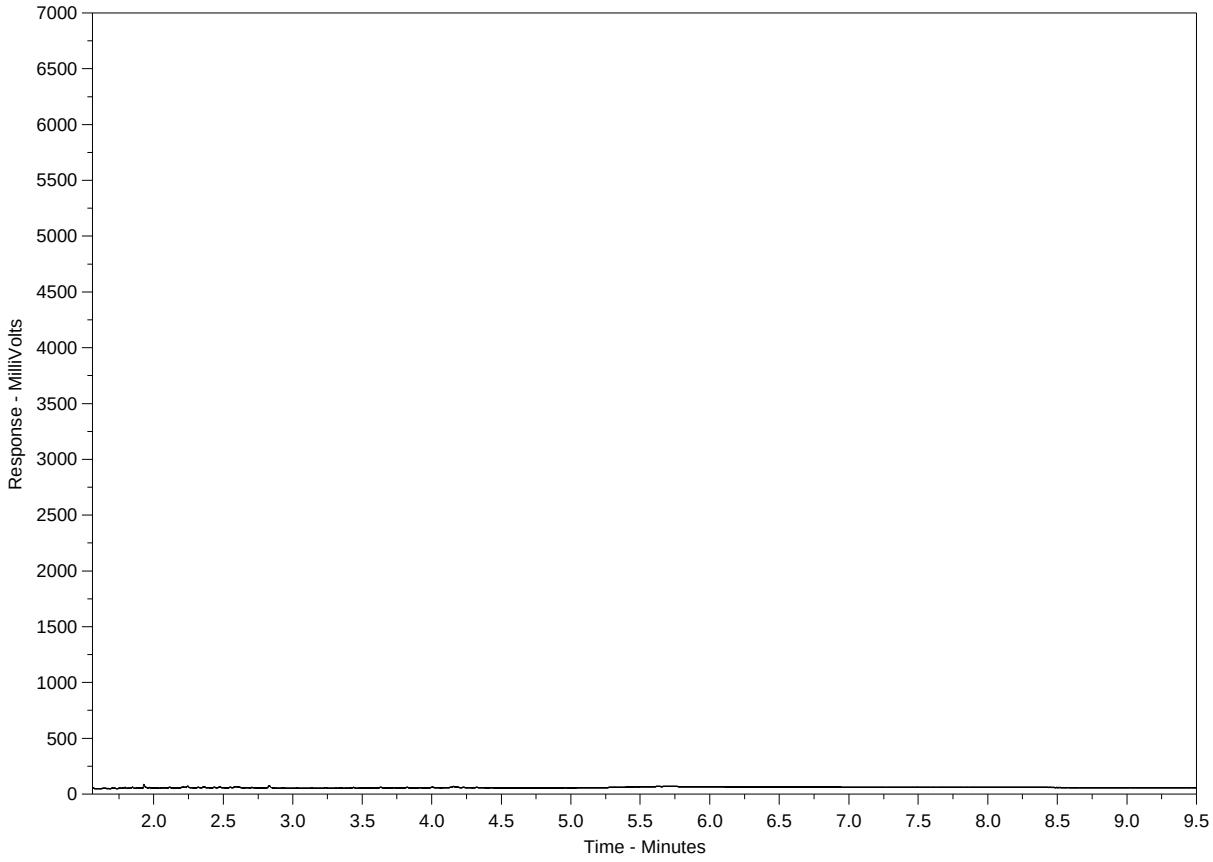
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

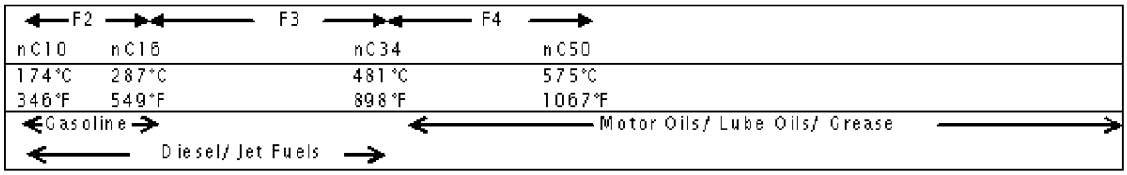
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-2
Client Sample ID: BH1, 17.5'-20'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

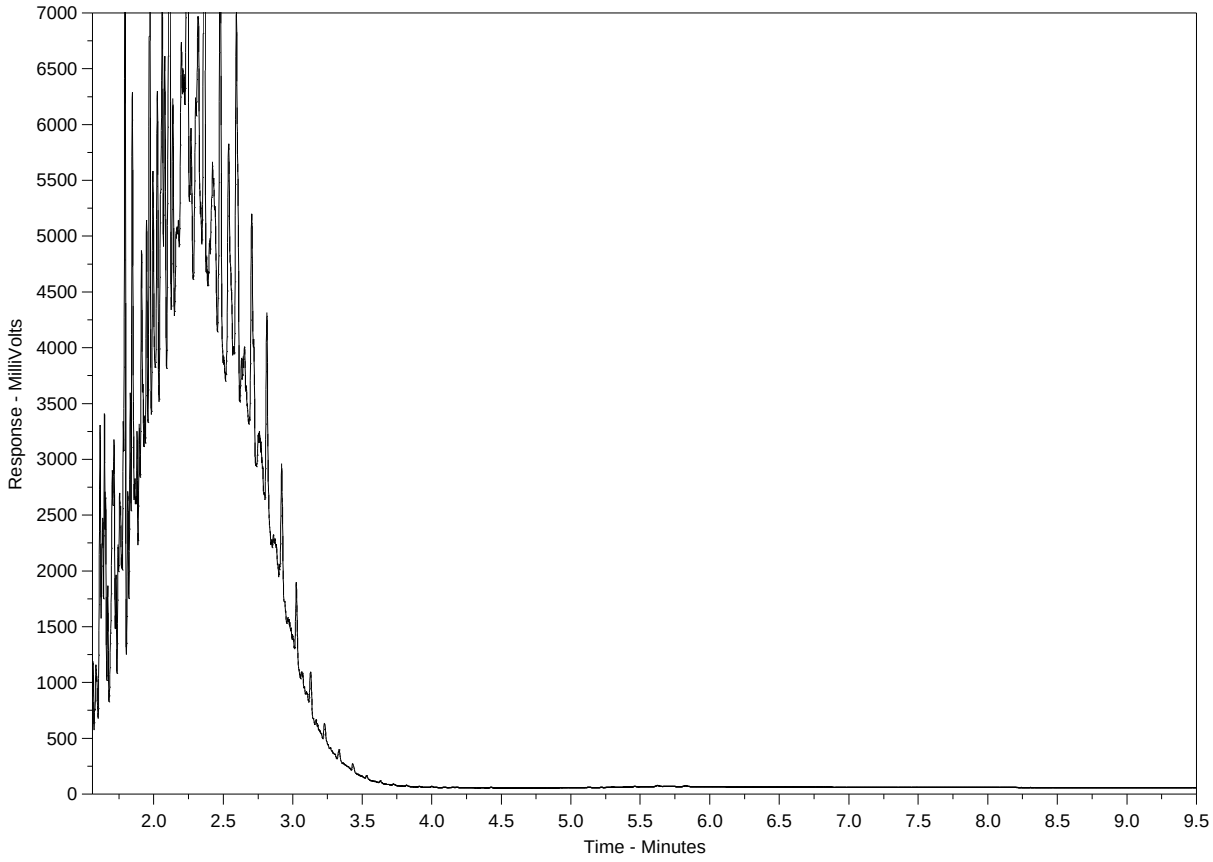
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

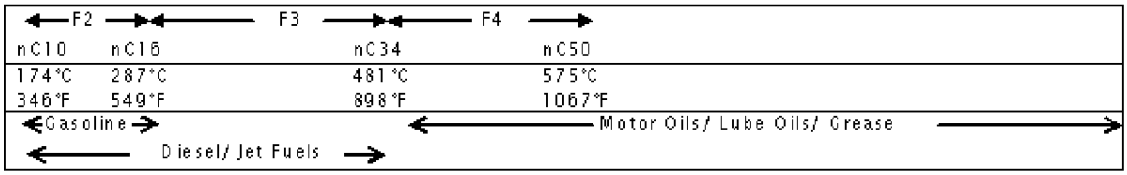
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-3
Client Sample ID: BH2, 2.5'-5'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

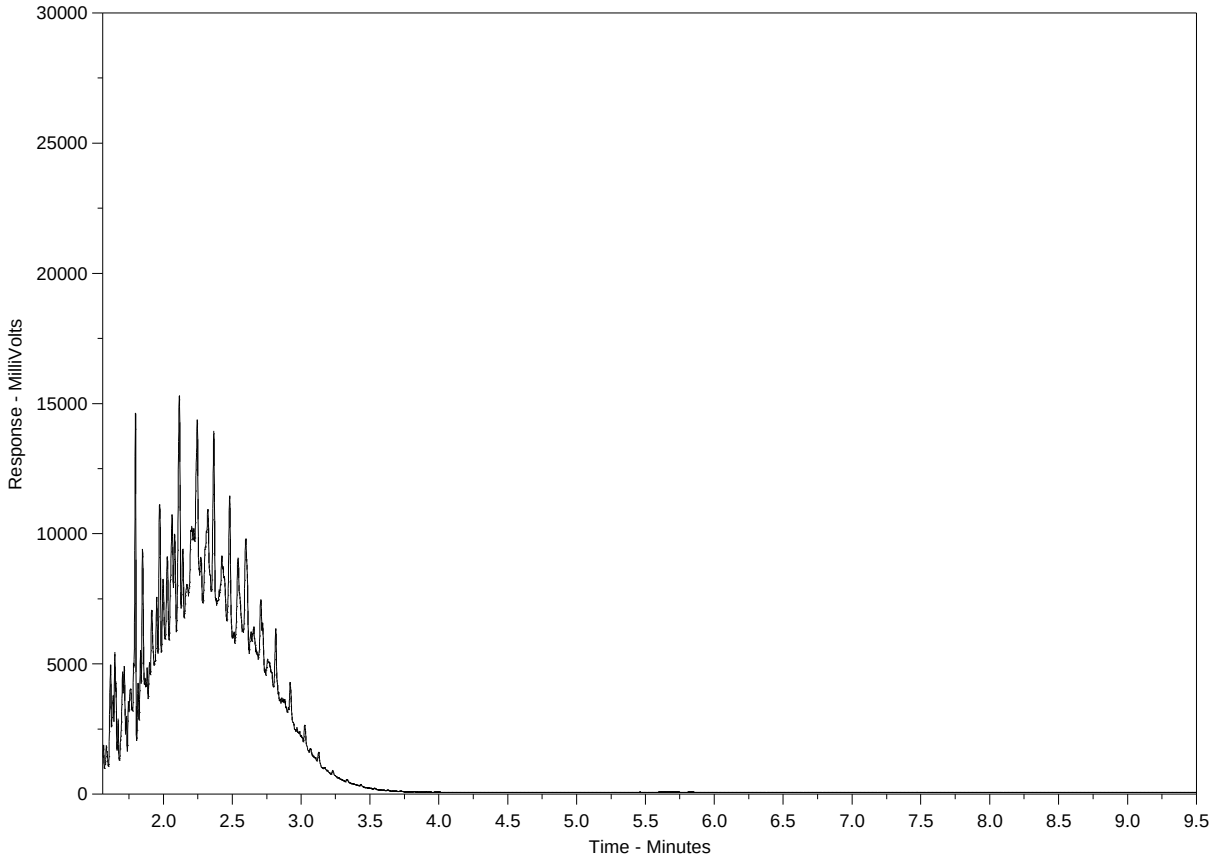
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

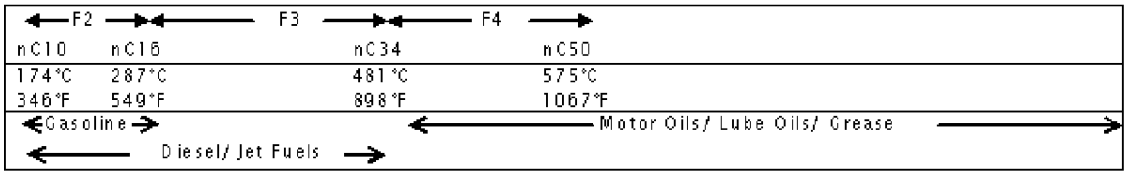
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-4
Client Sample ID: DUP-S1





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

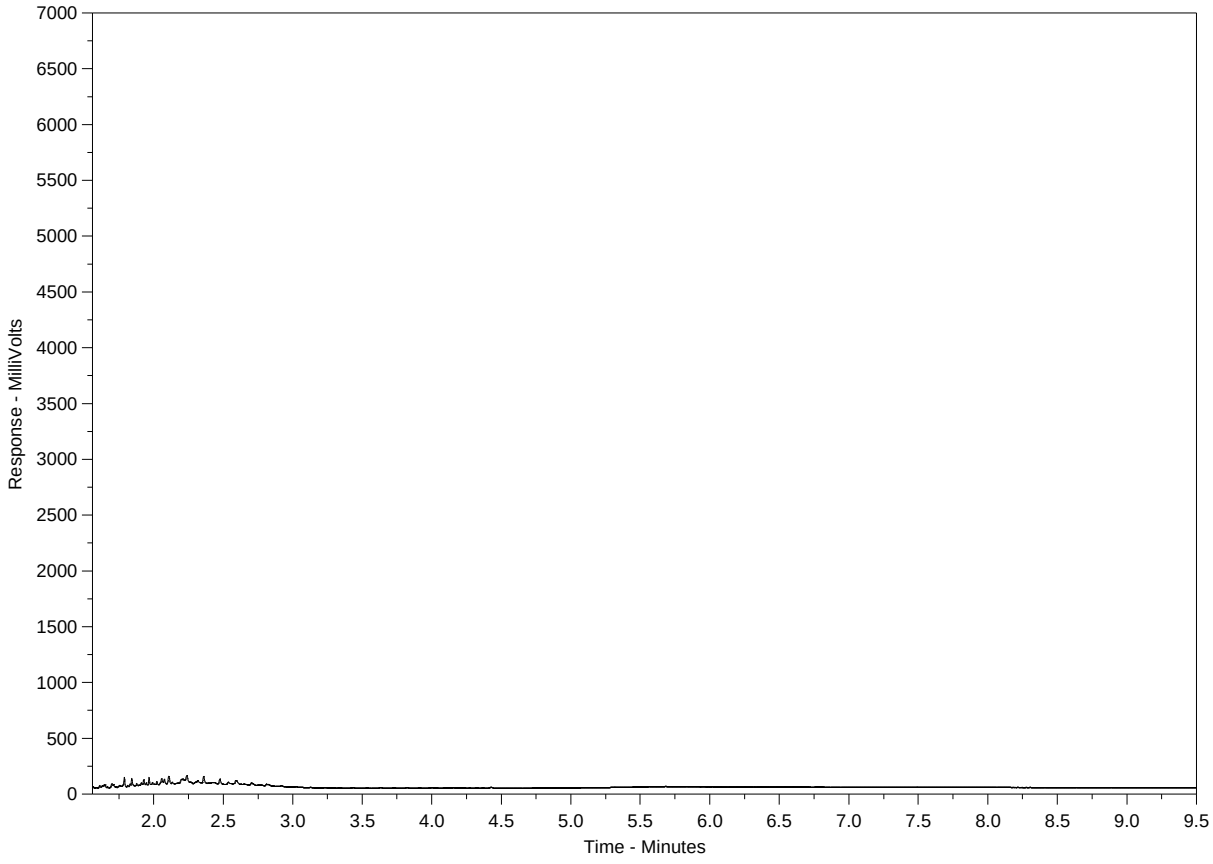
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

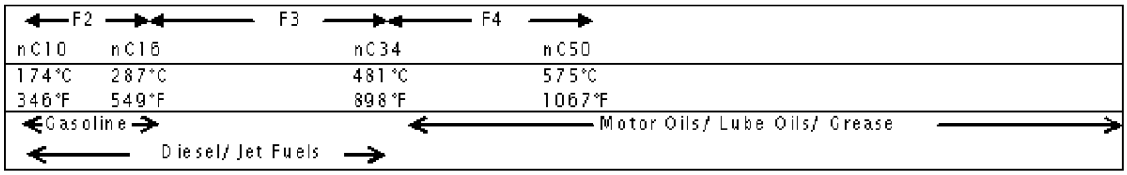
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-5
Client Sample ID: BH2, 17.5'-20'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

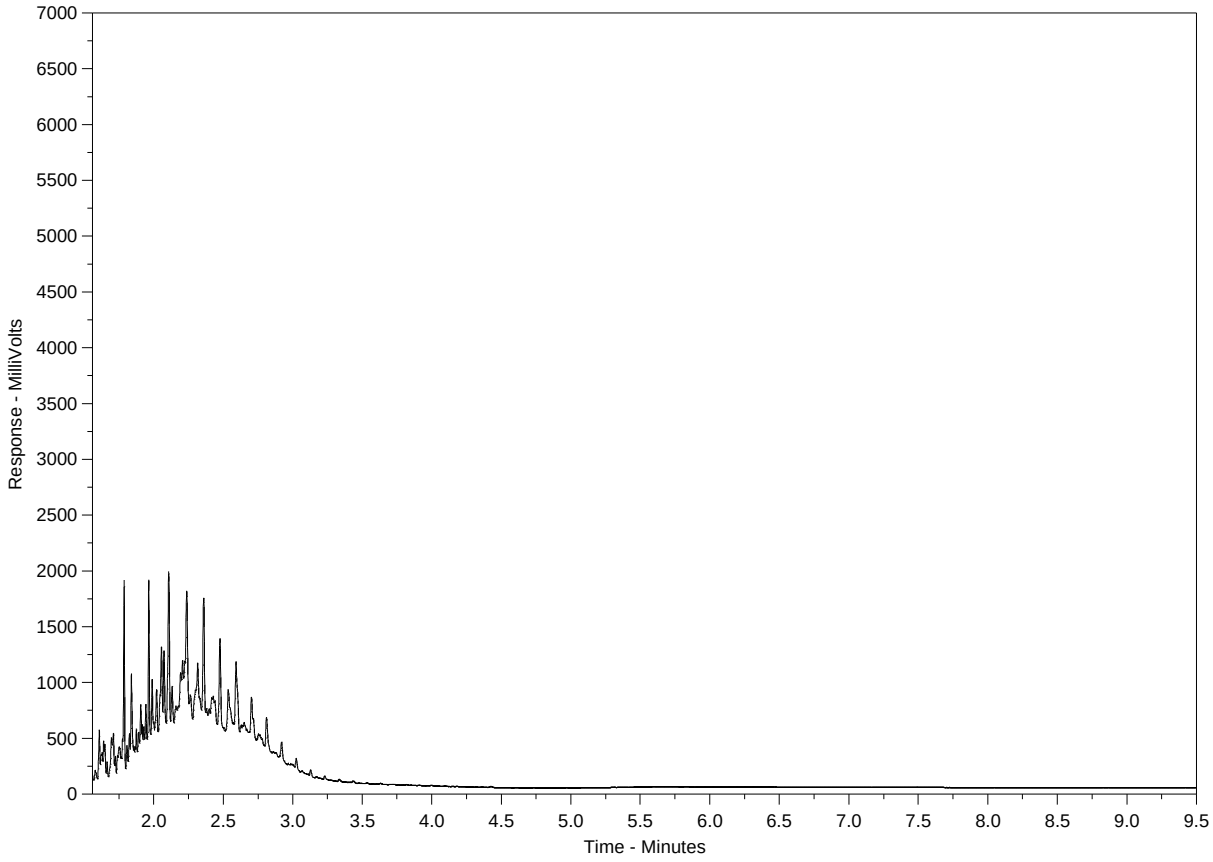
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

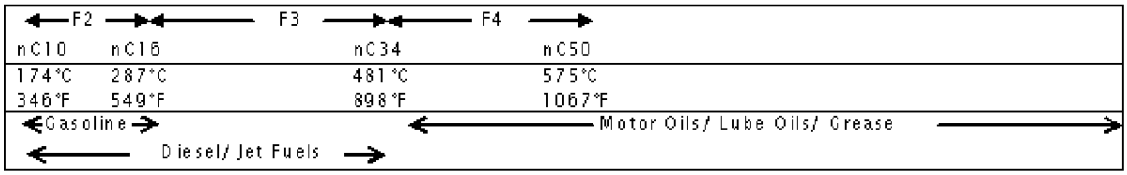
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-6
Client Sample ID: BH3, 12.5'-15'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

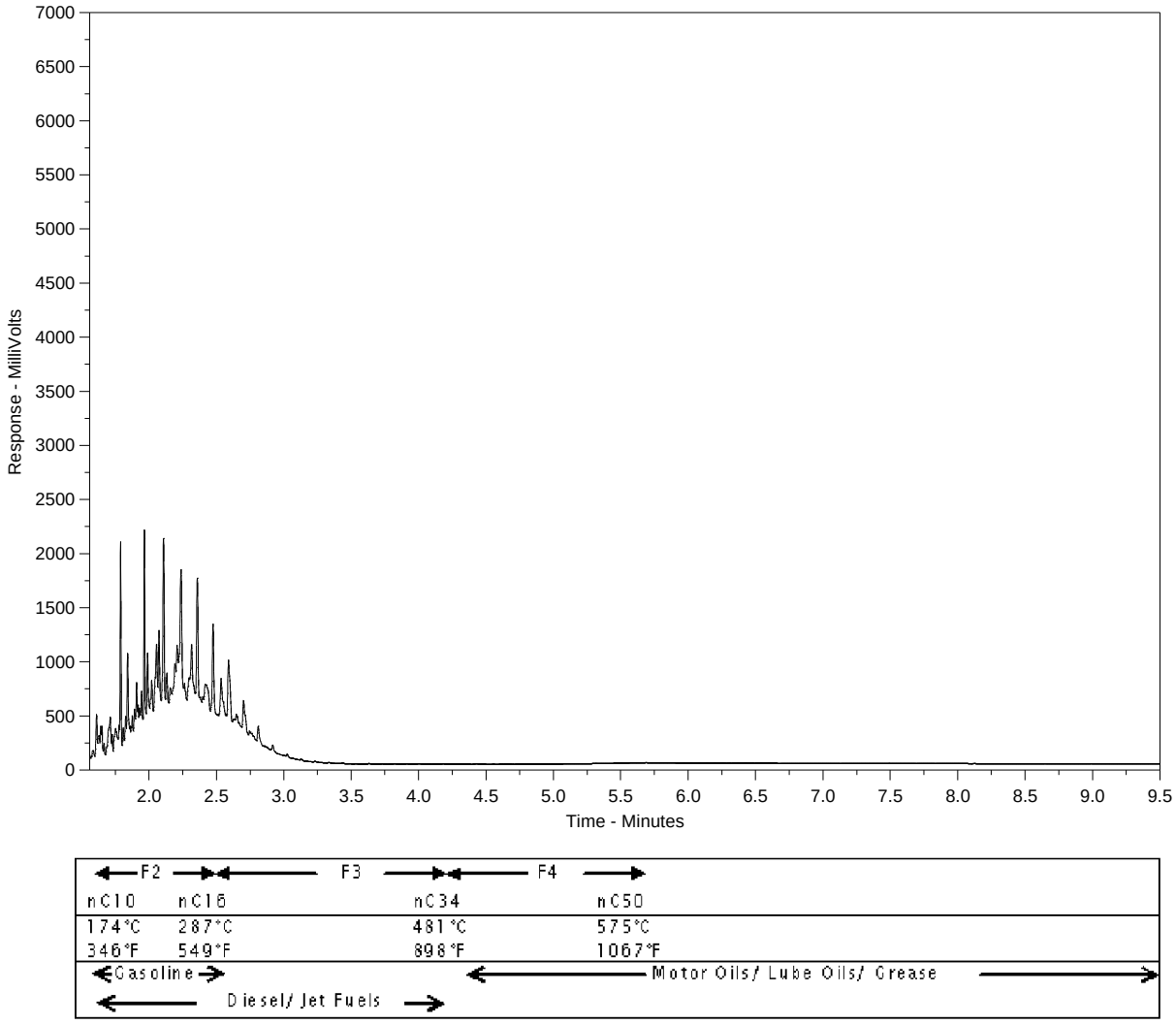
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-7
Client Sample ID: BH4, 12.5'-15'



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

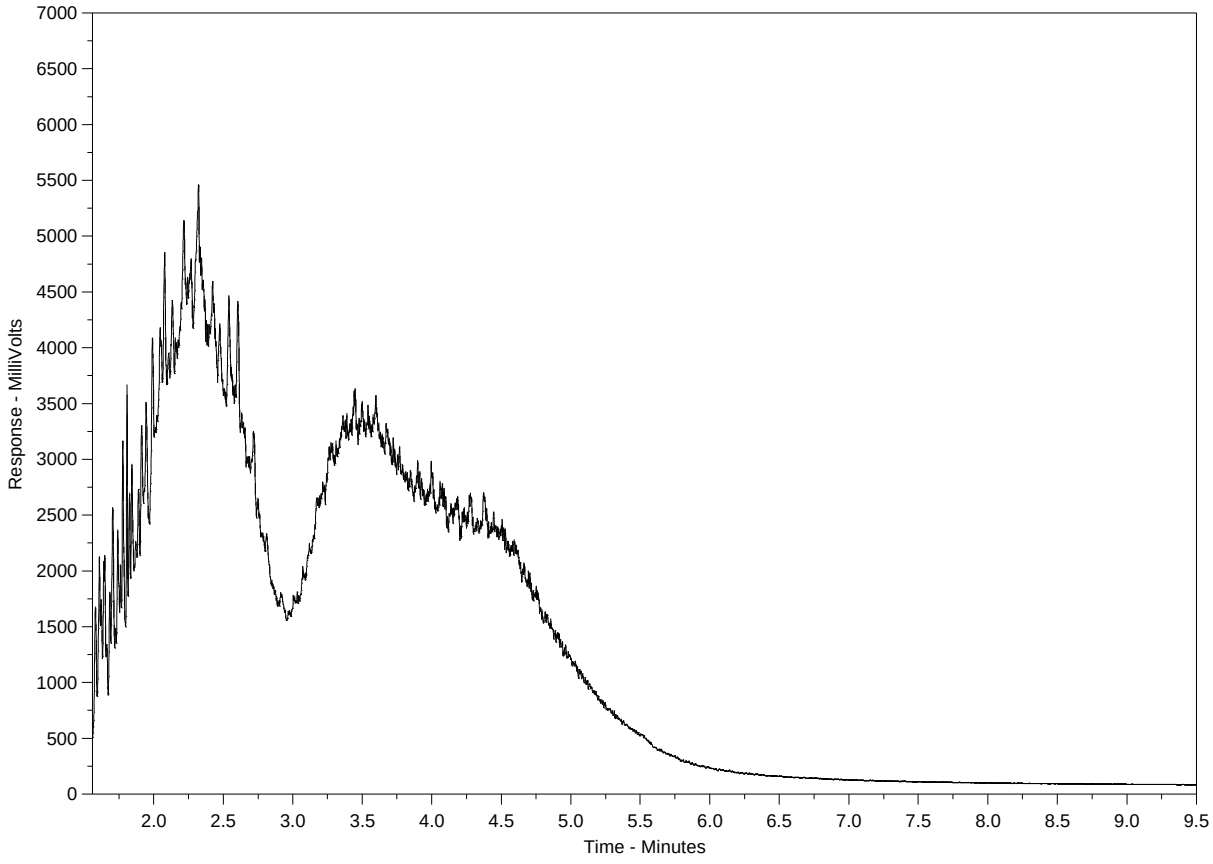
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

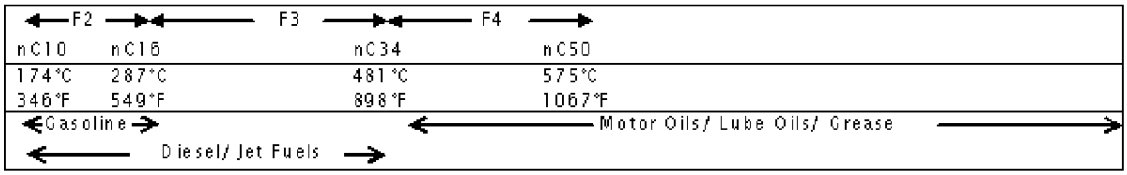
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-9
Client Sample ID: BH9, 2.5'-5'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

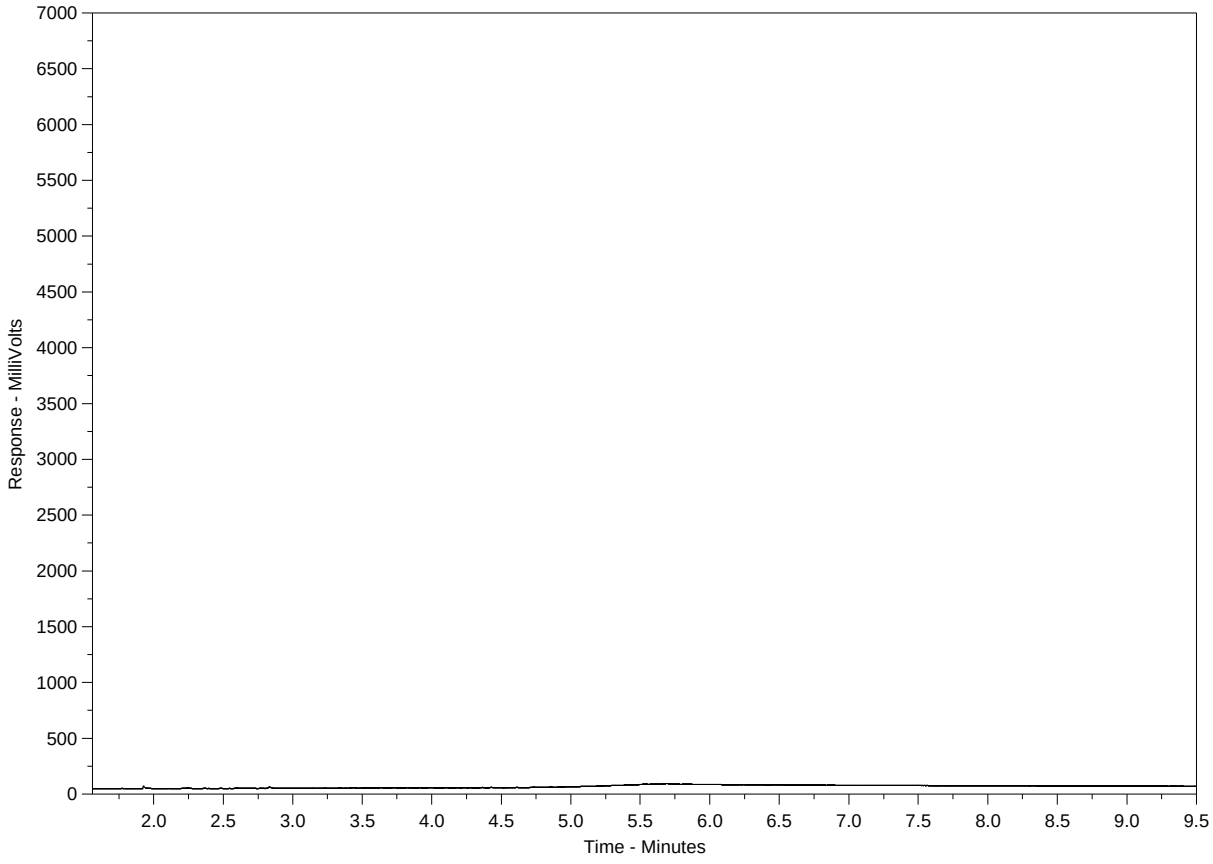
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

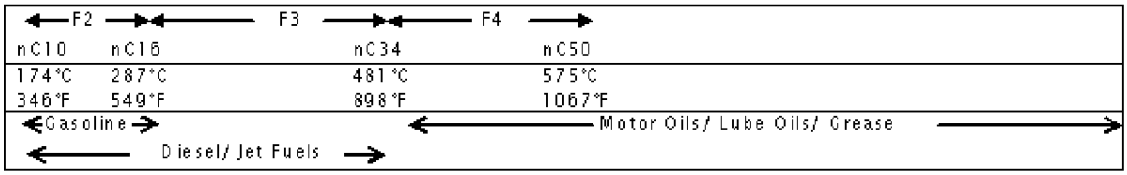
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-10
Client Sample ID: BH8' 7.5'-10'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

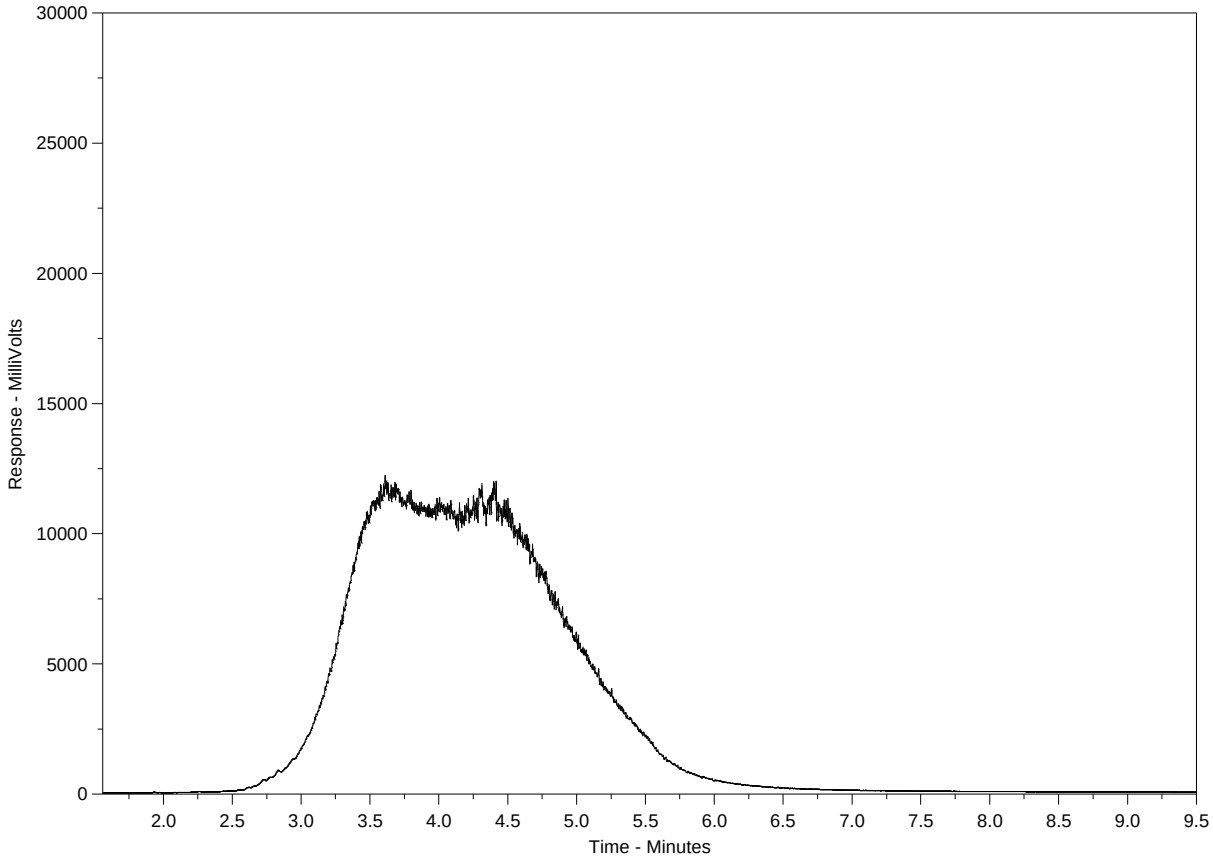
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

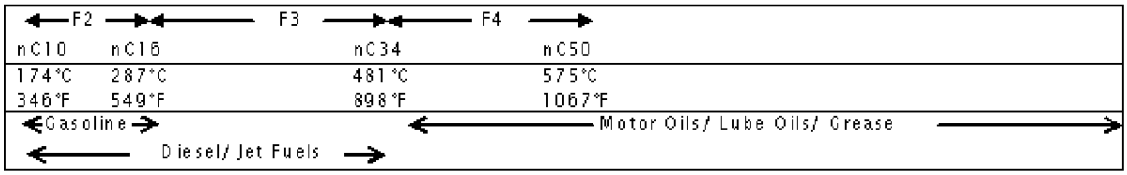
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-11
Client Sample ID: BH7, 2.5'-5'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

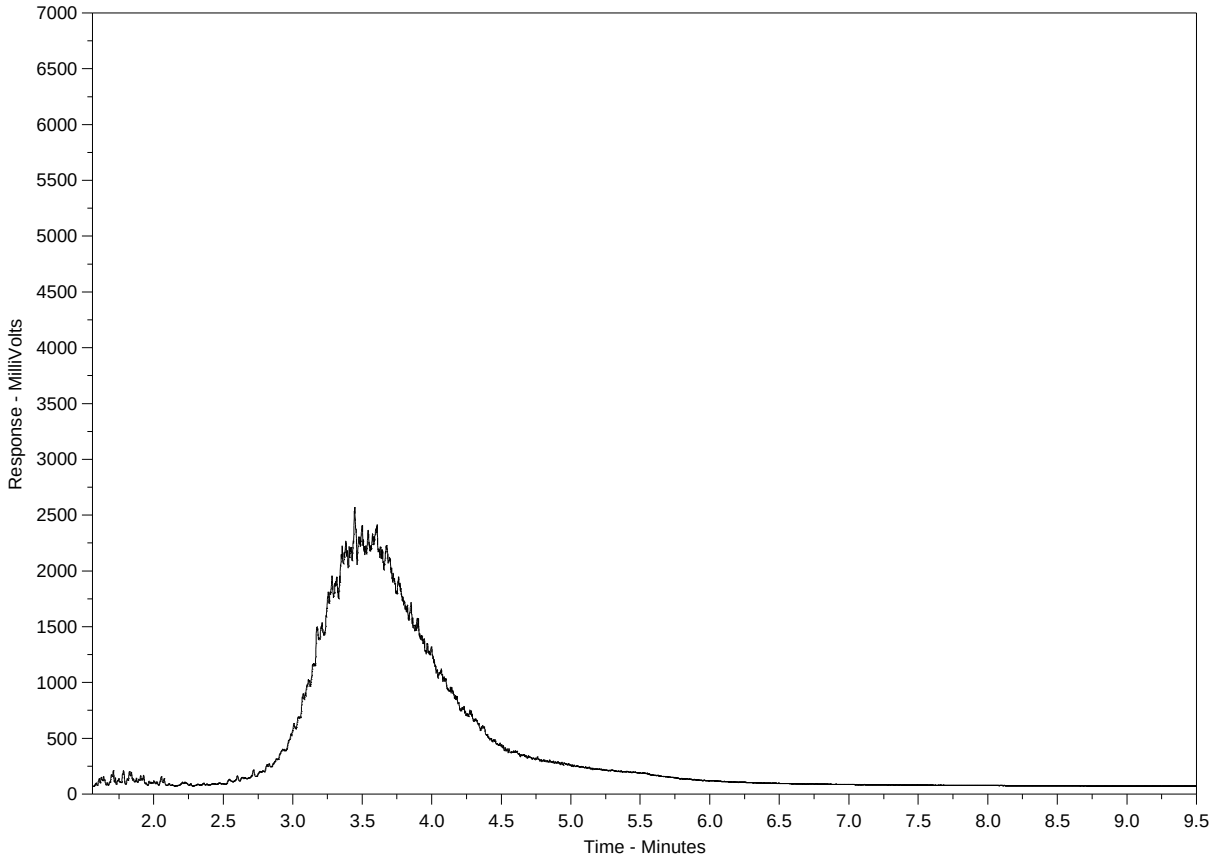
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

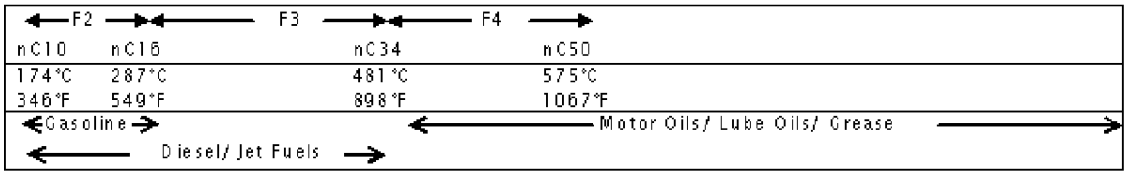
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-12
Client Sample ID: BH6, 7.5'-10'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

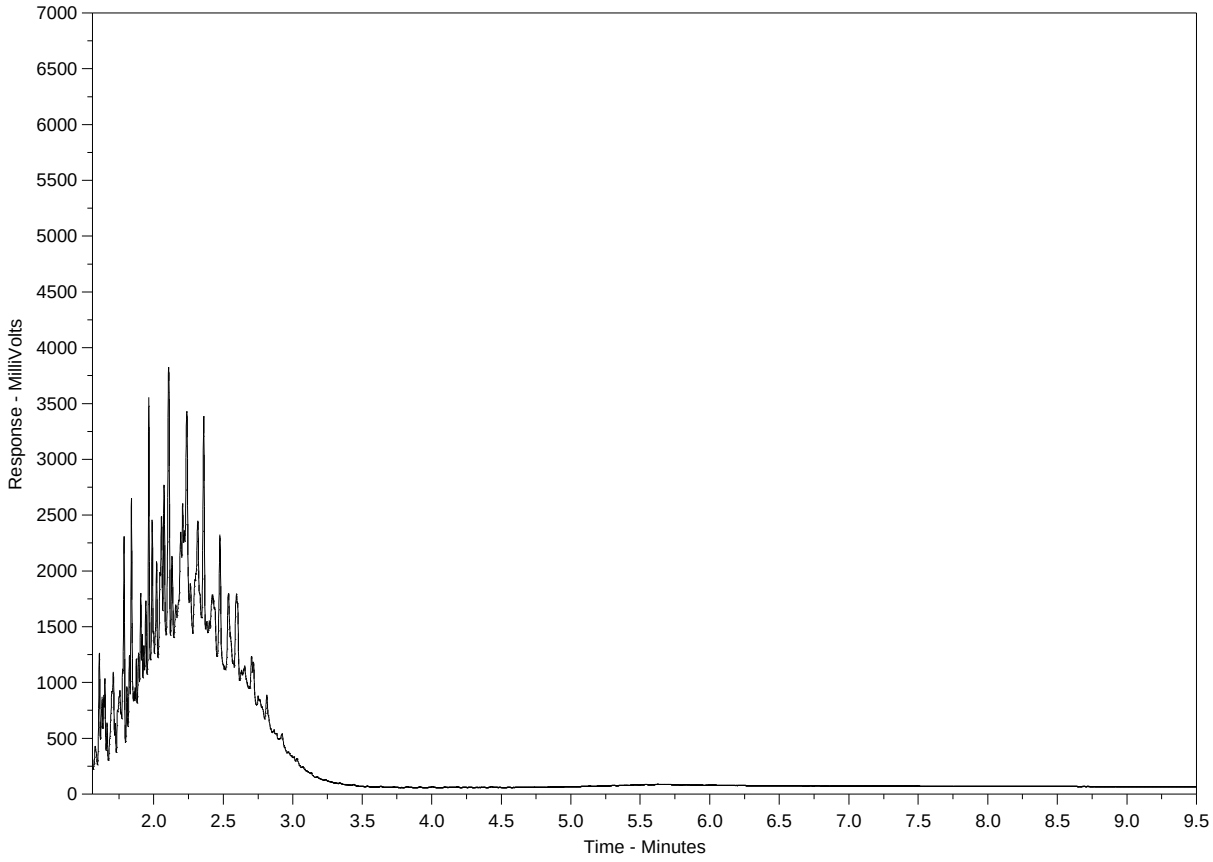
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

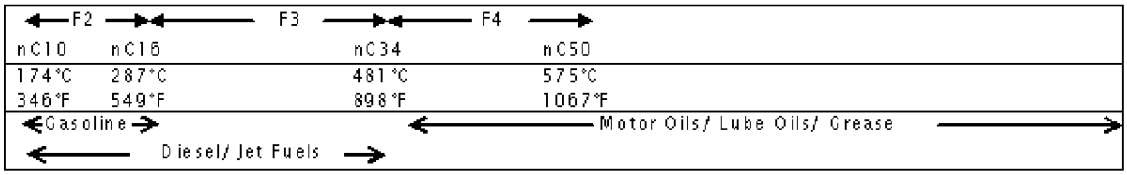
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-13
Client Sample ID: BH5, 7.5'-10'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

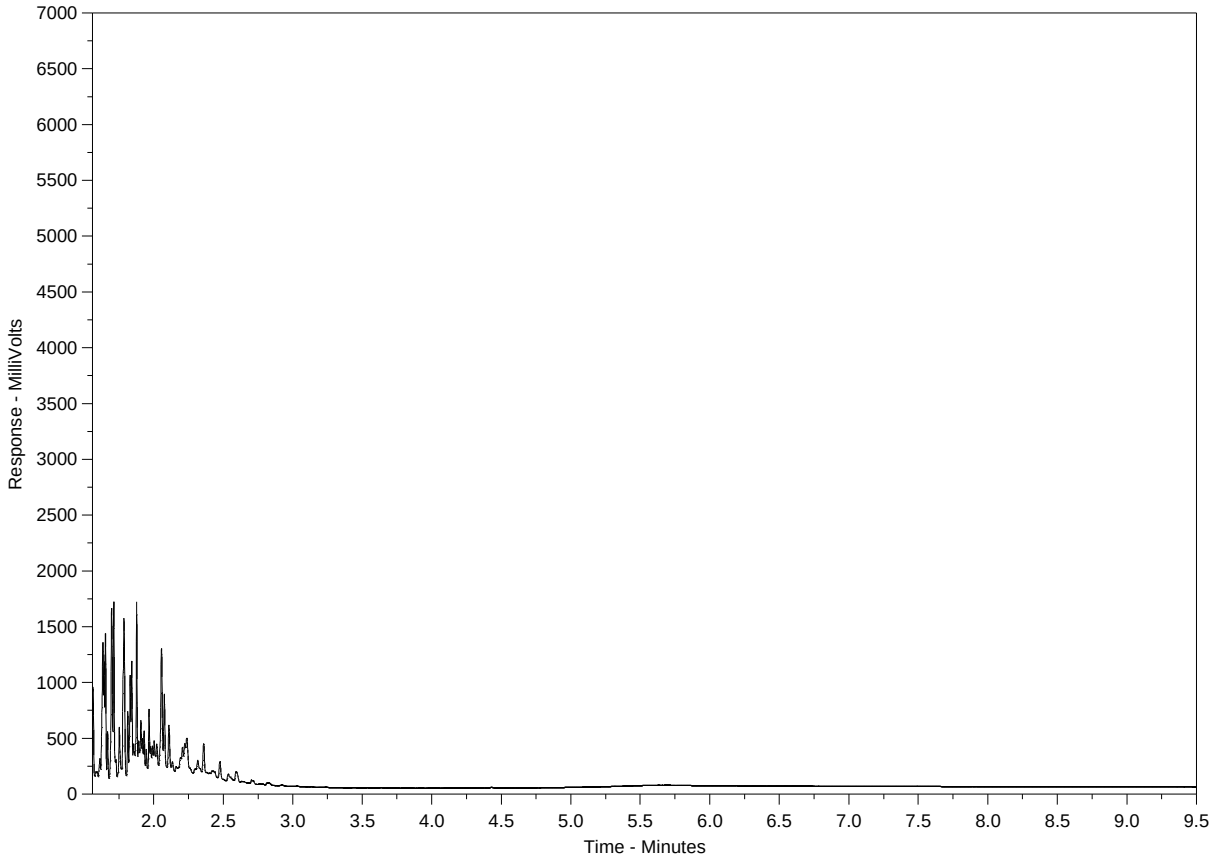
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

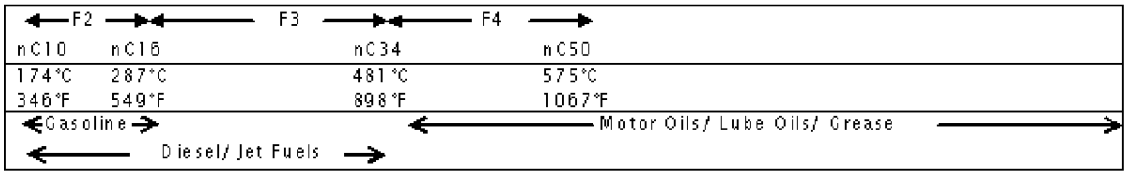
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-14
Client Sample ID: BH10, 12.5'-15'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

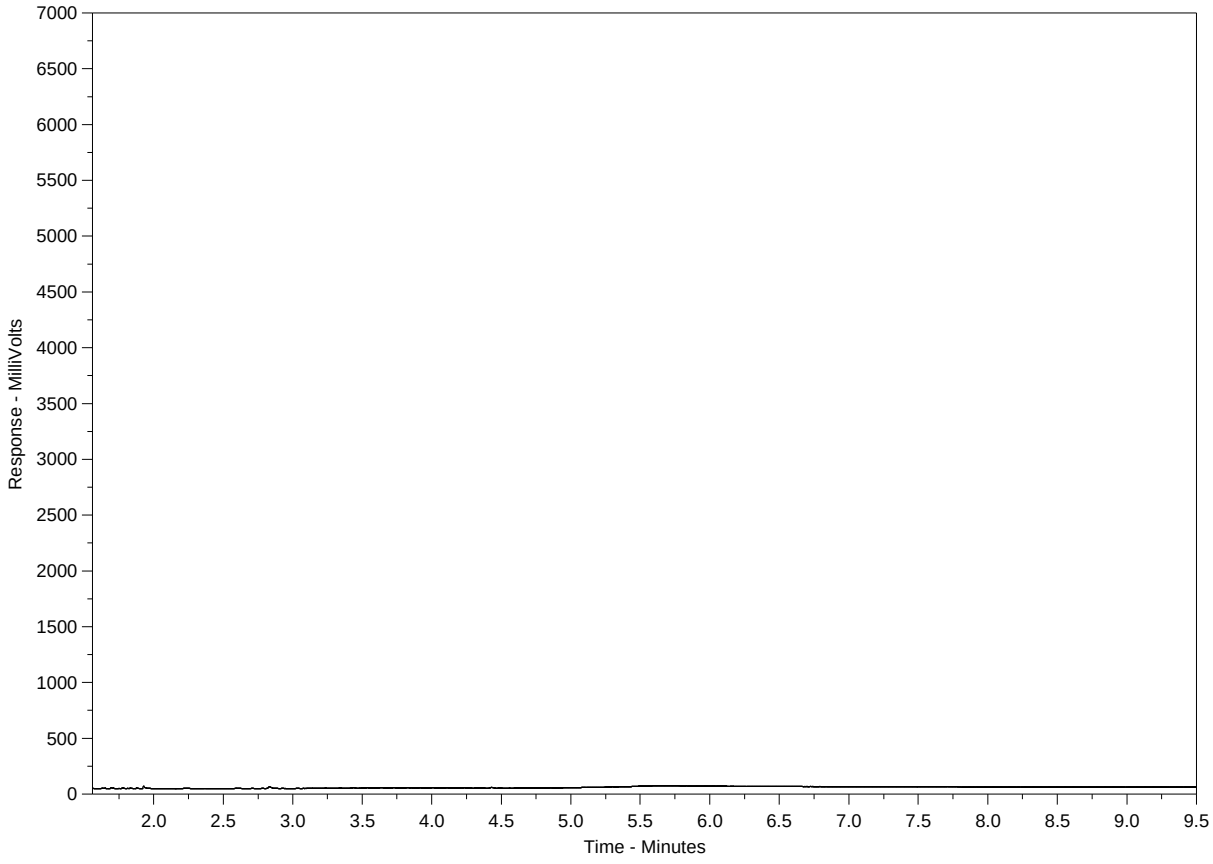
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

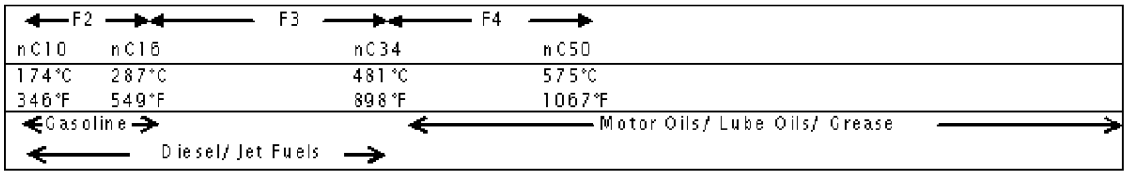
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-15
Client Sample ID: BH10, 20'-22.5'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

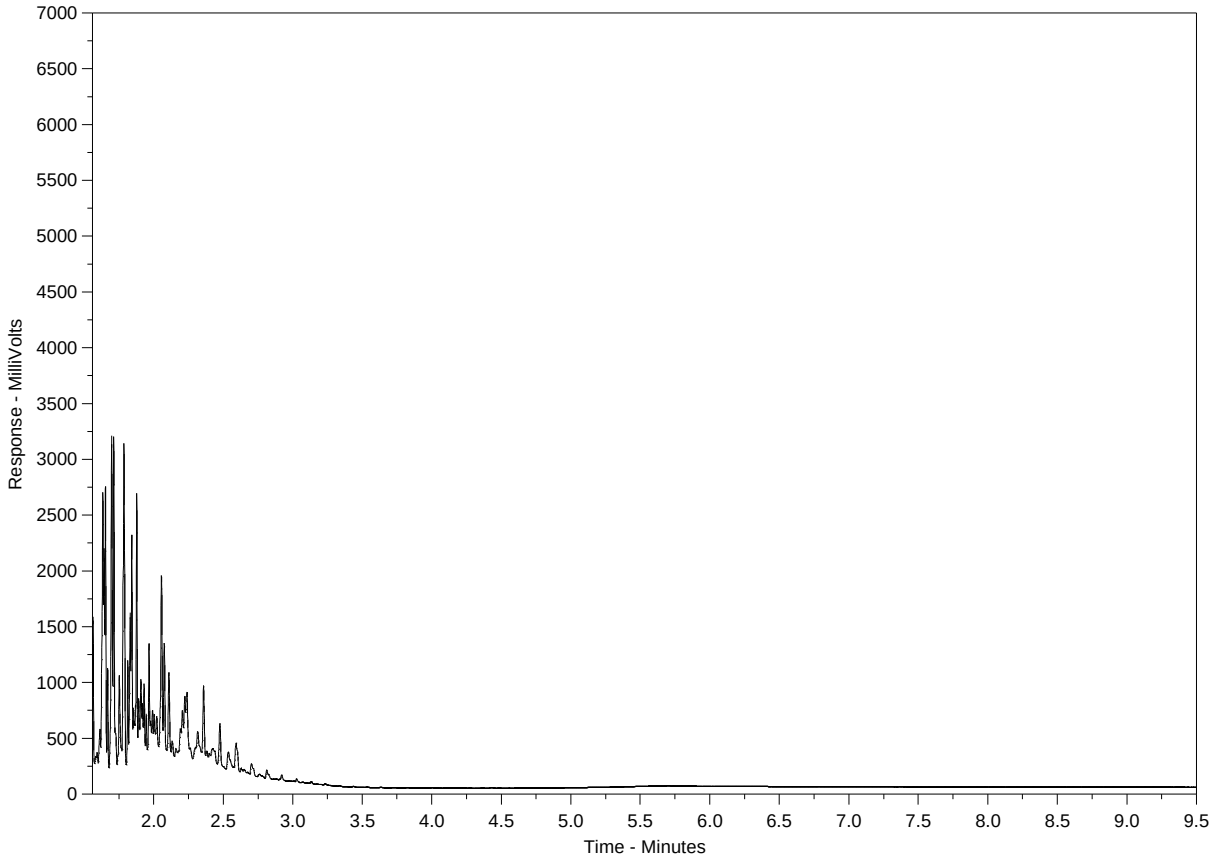
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

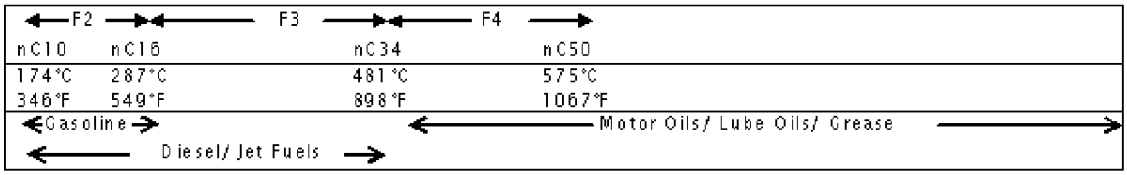
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-16
Client Sample ID: BH11, 2.5'-5'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

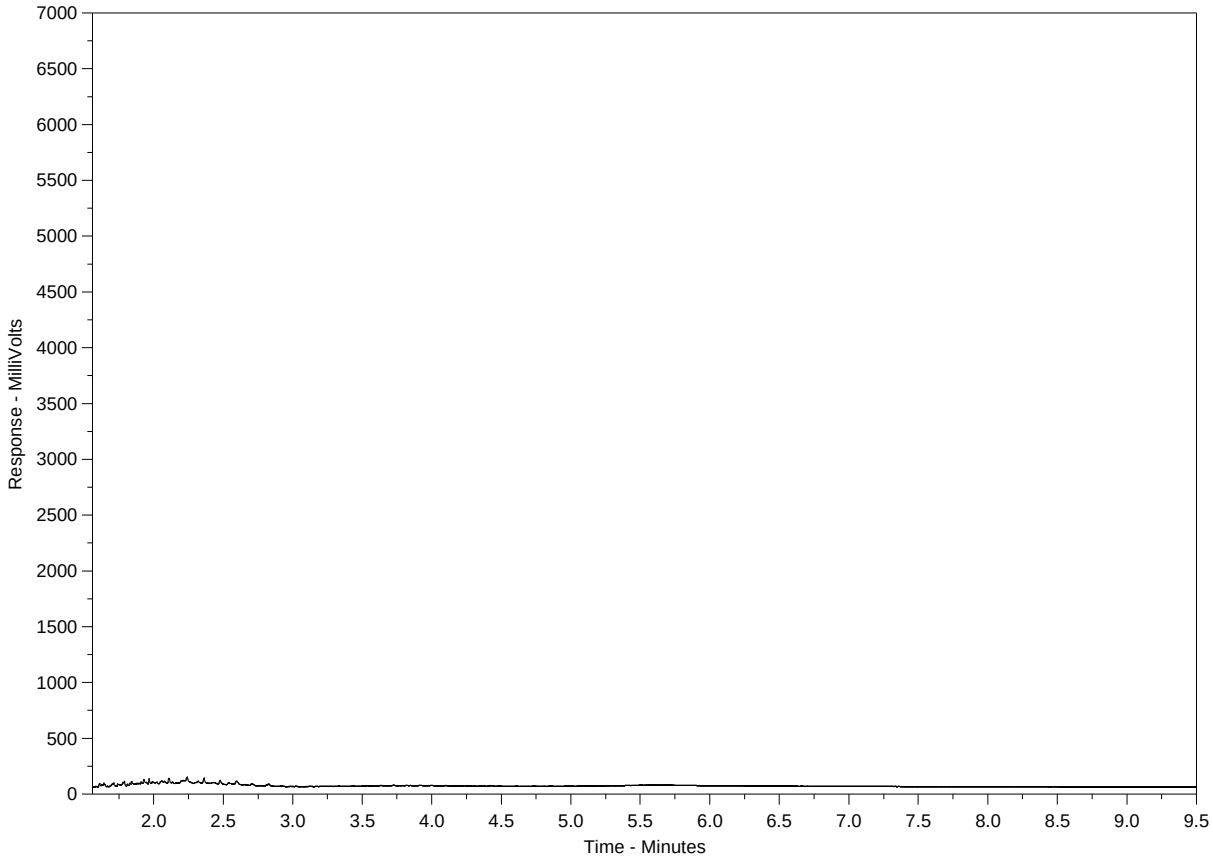
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

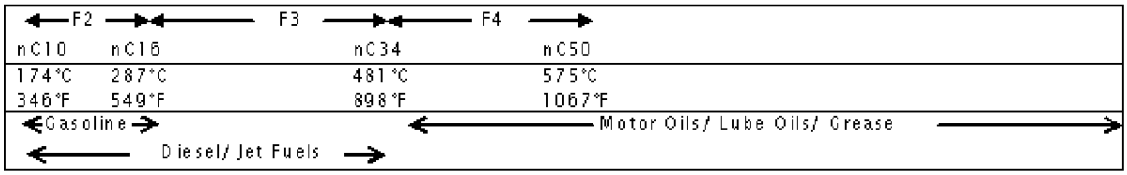
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-17
Client Sample ID: BH12, 7.5'-10'





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

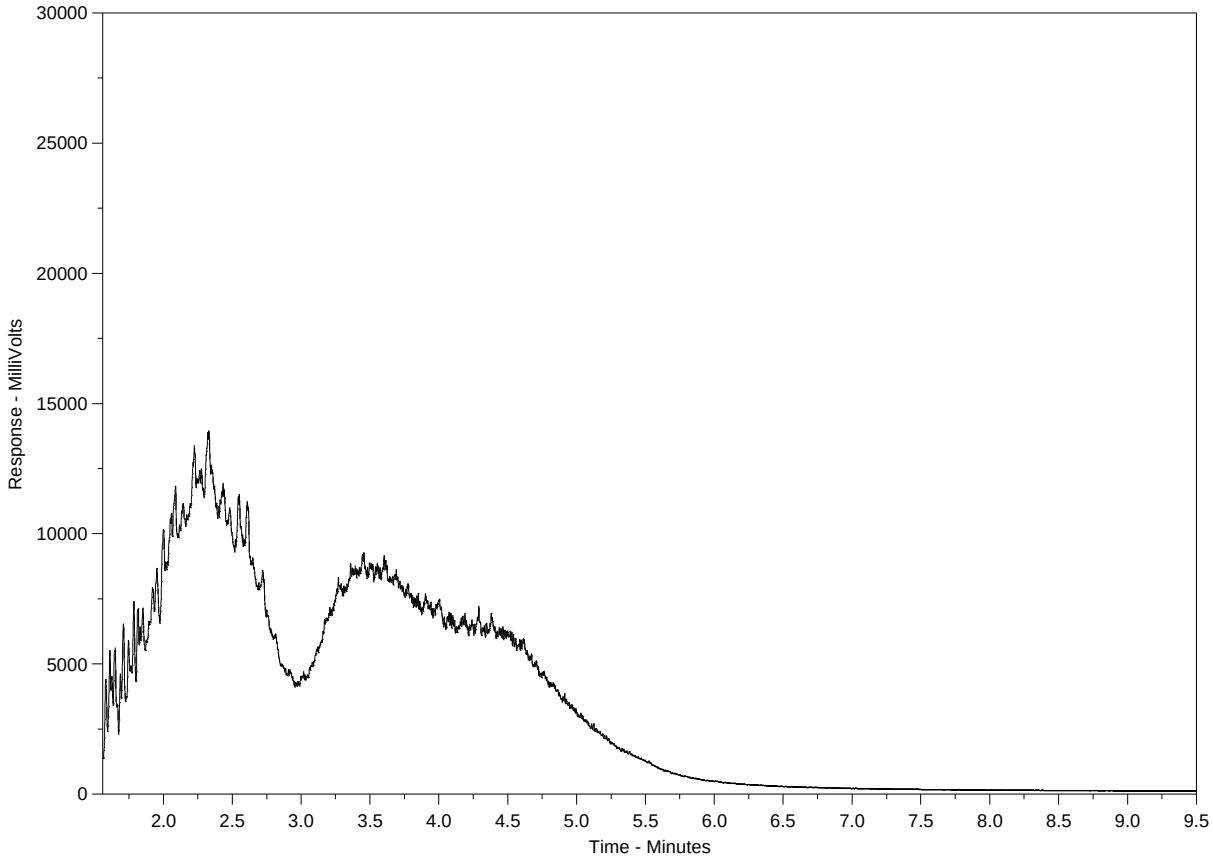
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

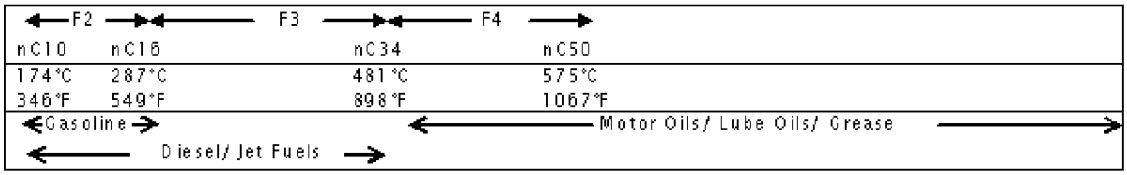
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-18
Client Sample ID: DUP-S2





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

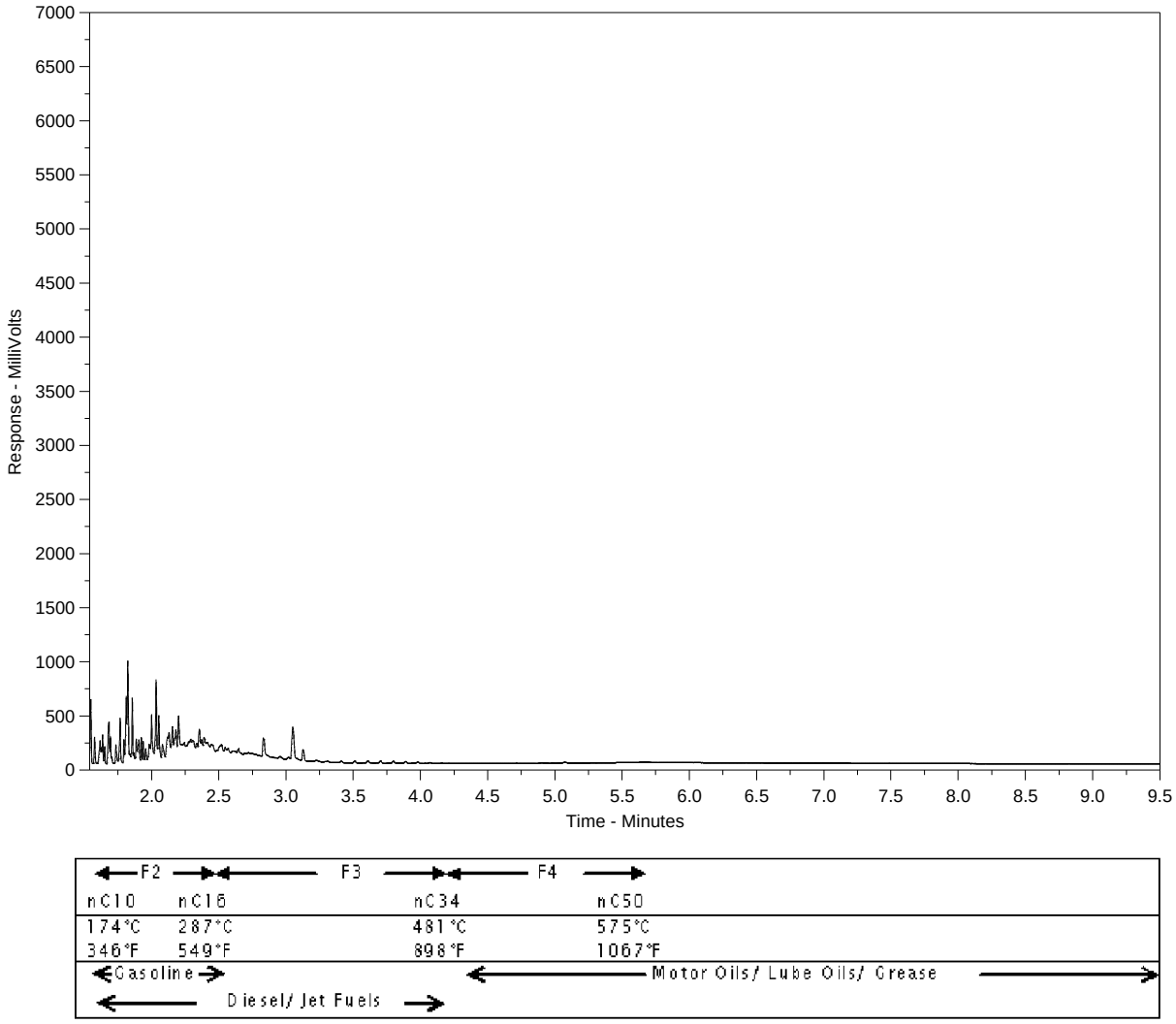
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-19
Client Sample ID: BH1



The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

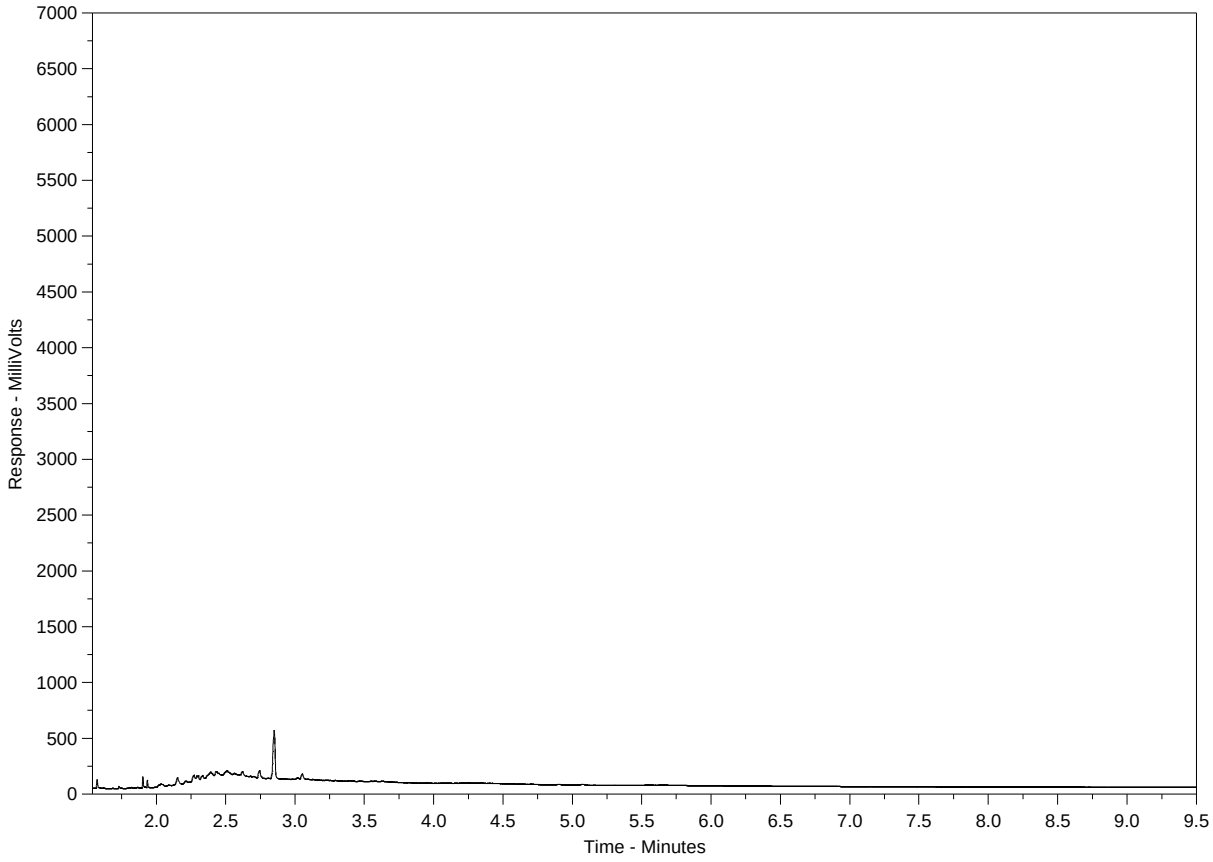
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

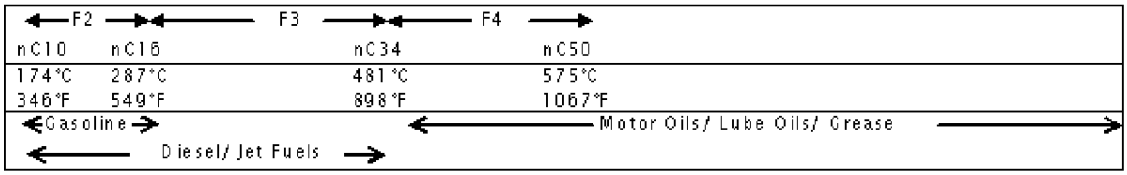
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-20
Client Sample ID: BH7





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

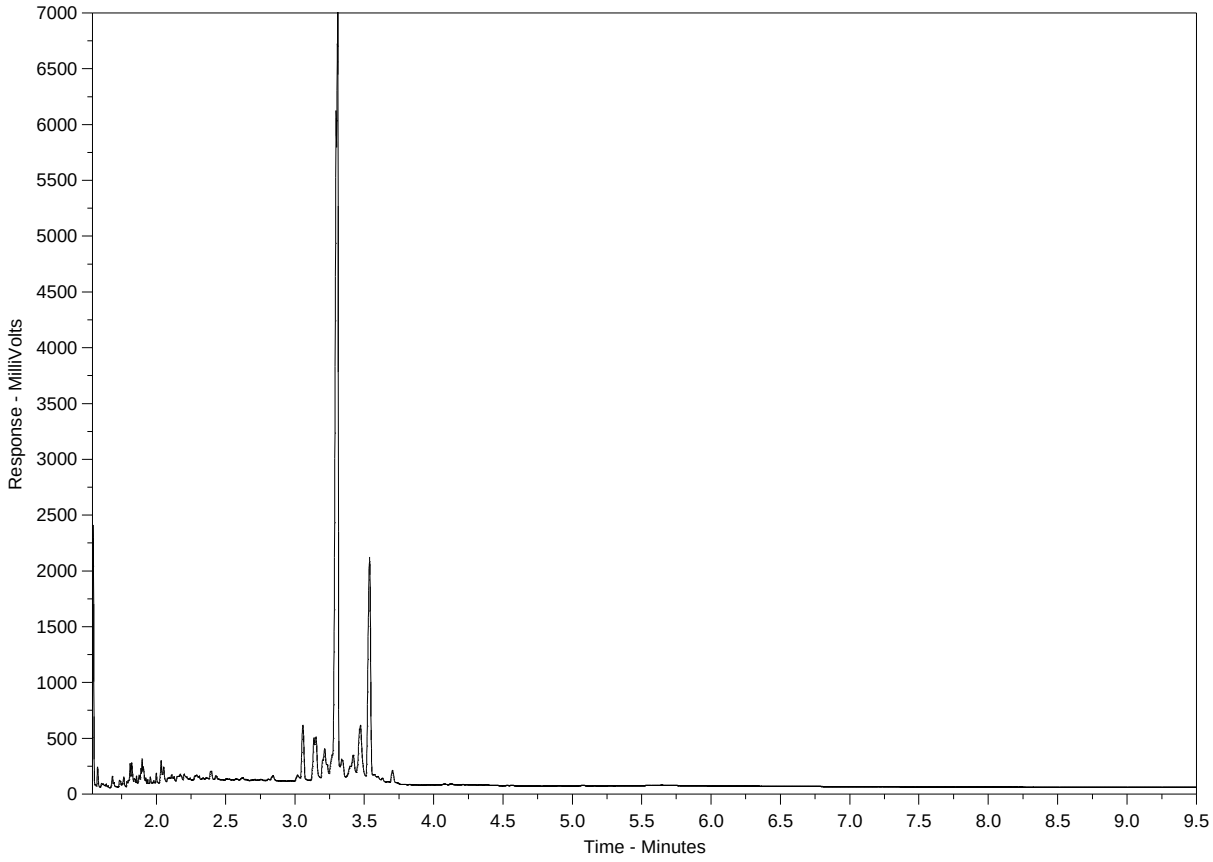
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

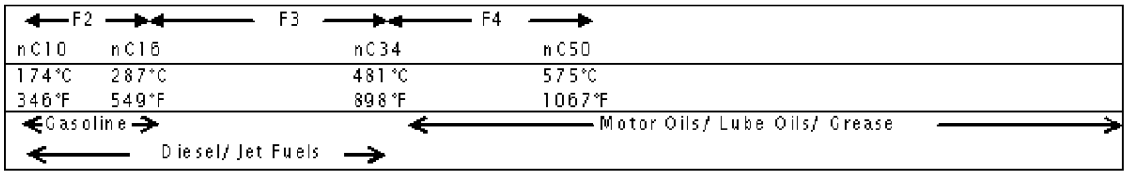
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-21
Client Sample ID: BH9





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

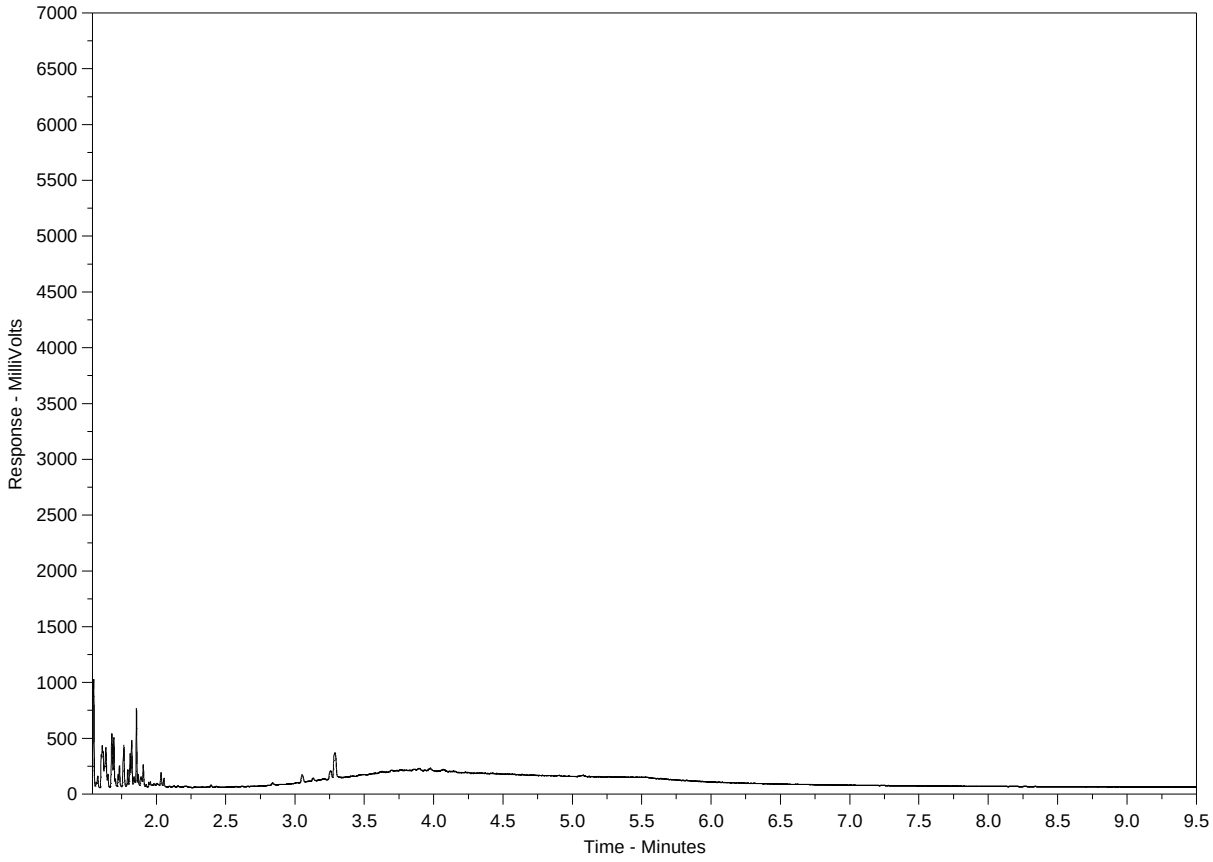
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

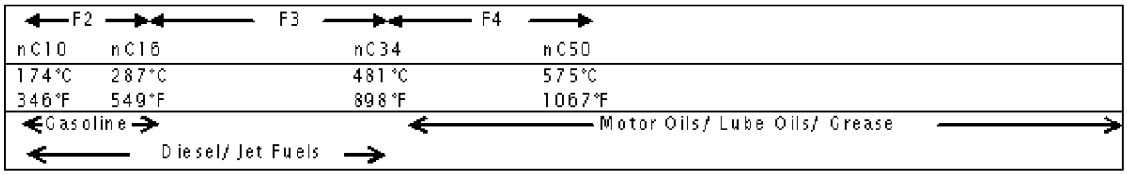
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2257286-22
Client Sample ID: BH10





The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor, and the scale at left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR library can be found at www.alsglobal.com.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental
www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2257286-COFC

COC Number: 17 - 623462

Page 1 of 2

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Turnaround Time (TAT) Requested - Please provide advance notice for rush projects (surcharges may apply)
Company:	Colestar Envi, Inc	Select Report Format: [X] PDF [X] EXCEL [ ] EDD (DIGITAL)	Regular [R] [X] Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Darren Coleman	Quality Control (QC) Report with Report [X] YES [ ] NO	PRIORITY (Business Days): 4 day [P4-20%] [ ]; 3 day [P3-25%] [ ]; 2 day [P2-50%] [ ]
Phone:	905-554-4156	[ ] Compare Results to Criteria on Report - provide details below if box checked	EMERGENCY: 1 Business day [E-100%] [ ]; Same Day, Weekend or Statutory holiday [E2-200%] (Laboratory opening fees may apply)] [ ]
	Company address below will appear on the final report	Select Distribution: [X] EMAIL [ ] MAIL [ ] FAX	
Street:	178 Fincham Ave	Email 1 or Fax	Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:	Markham, Ont	Email 2	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:	L3P 4B3	Email 3 dcoleman@colestarenvironmental.com	Analysis Request
Invoice To	Same as Report To [X] YES [ ] NO	**Invoice Distribution**	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
	Copy of Invoice with Report [X] YES [ ] NO	Select Invoice Distribution: [X] EMAIL [ ] MAIL [ ] FAX	
Company:		Email 1 or Fax	
Contact:		Email 2 Same as above	

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	0301-02	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact: Mary-Lynn Pike	Sampler: Carl Frankruyter

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BTEX/F1	F2-F4	PAHs	Metals	pH	VOCs/F1	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
1	BH1, 10'-12.5'	Apr 9/19		Soil	X	X							3
2	BH1, 17.5'-20'					X			X				1
3	BH2, 2.5'-5'				X	X							3
4	DUP-S1					X							1
5	BH2, 17.5'-20'					X							1
6	BH3, 12.5'-15'					X							1
7	BH4, 12.5'-15'					X							1
8	BH9, 0-2.5'	Apr 10/19					X	X	X				2
9	BH9, 2.5'-5'					X				X			3
10	BH8, 7.5-10'					X				X			1
11	BH7, 2.5'-5'					X	X	X		X			5
12	BH6, 7.5'-10'					X				X			3

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? [ ] YES [X] NO	
Are samples for human consumption/ use? [ ] YES [X] NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen [ ] SIF Observations Yes [ ] No [ ]
Ice Packs [ ] Ice Cubes [ ] Custody seal intact Yes [ ] No [ ]
Cooling Initiated [ ]

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
							6.5

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: Apr 11/19	Time: 2pm	Received by:	Date:	Time:	Received by:	Date: APR 12 2019	Time: PW

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JULY 2017 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

ALS Environmental
www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

L2257286-COFC

COC Number: 17 - 623461

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)
Company:	Colestar	Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)	Regular [R] ☒ Standard TAT if received by 3 pm - business days - no surcharges apply
Contact:	Darren Coleman	Quality Control (QC) Report with Report ☒ YES ☐ NO	PRIORITY (Business Days): 4 day [P4-20%] ☐ / 3 day [P3-25%] ☐ / 2 day [P2-50%] ☐ — EMERGENCY: 1 Business day [E-100%] ☐ / Same Day, Weekend or Statutory holiday [E2-200% (Laboratory opening fees may apply)] ☐
Phone:		☐ Compare Results to Criteria on Report - provide details below if box checked	
	Company address below will appear on the final report	Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	
Street:	See page 1	Email 1 or Fax	[redacted] Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm
City/Province:		Email 2	For tests that can not be performed according to the service level selected, you will be contacted.
Postal Code:		Email 3 dcoleman@colestarenvironmental.com	

Invoice To	Same as Report To ☐ YES ☐ NO	Invoice Distribution	Analysis Request
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below
Company:		Email 1 or Fax	
Contact:		Email 2	

Project Information		[redacted] Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	0301-02	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only):		ALS Contact:	Sampler:

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	BTEX/F1	F2-F4	PAHs	Metals	pH	VOCs/F1	SAMPLES ON HOLD	Sample is hazardous (please provide further details)	NUMBER OF CONTAINERS
13	BH5, 7.5'-10'	Apr 10/19		Soil		X							1
14	BH10, 12.5'-15'	↓		↓	X	X							3
15	BH10, 20'-22.5'				X	X							3
16	BH11, 2.5'-5'	Apr 11/19			X	X							3
17	BH12, 7.5'-10'				X	X							3
18	DUP S2 (as per jar)												
19	BH1			GW	X	X							4
20	BH7					X		X		X			5
21	BH9					X		X		X			5
22	BH10				X	X							4
23	DUP-W1									X			4

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	
Are samples for human consumption/ use? ☐ YES ☐ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐	SIF Observations	Yes ☐	No ☐
Ice Packs ☐ Ice Cubes ☐	Custody seal intact	Yes ☐	No ☐
Cooling Initiated ☐			

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date: Apr 11/19	Time: 2pm	Received by:	Date:	Time:	Received by:	Date: APR 12 2019	Time: 9:40

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

JULY 2017 FRONT

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

APPENDIX C
SEPTEMBER 2020 SOIL GAS QUALITY ASSESSMENT

PRIVILEGED AND CONFIDENTIAL
PREPARED AT THE REQUEST OF COUNSEL

September 16, 2020

Ms. Susan Kirkpatrick
Sr. Environmental Project & Program Manager
FirstGroup America
600 Vine Street, Suite 1400
Cincinnati, Ohio 45202

Soil Gas Quality Assessment
Former Greyhound Facility – Thompson, Manitoba
Strata Environmental Project No. 2078473

Dear Ms. Kirkpatrick:

Strata Environmental (Strata), is pleased to provide the results of the Soil Gas Quality Assessment (SGQA) completed in August 2020 at 81 Berens Road, Thompson, Manitoba (Site). The SGQA was carried out in accordance with Strata Proposal Number 2020-048 and conducted to ascertain if residual petroleum hydrocarbon impacts in subsurface soil and groundwater beneath the Site yield soil gas concentrations that could pose an adverse risk to building occupants via vapor intrusion through the floor slab and building foundation.

Methods

To complete the SGQA, ambient air samples (indoor and outdoor) were acquired for comparative analysis with sub-slab soil gas. A Site Plan showing the location of all sampling points is provided as Figure 1. The work carried out in the SGQA included:

- Installation of three sub-slab soil gas probes within the building.
- Acquisition of soil gas samples from the probes (duplicate included) for laboratory analysis of the following petroleum hydrocarbon (PHC) constituents of concern (COCs): benzene, toluene, ethylbenzene and xylenes (BTEX), PHC Fractions 1 (C6-10) and 2 (C10-16), as well as PHC aliphatic (C6-16) and aromatic (C8-16) subfractions.
- Acquisition of eight-hour indoor and outdoor air samples for PHC COC analysis.
- Development of site-specific soil gas objectives (SGOs) protective of building occupants.
- Assessment of soil gas quality against the SGOs to ascertain if an exposure risk is apparent.
- Assessment of indoor and outdoor ambient air quality against health-based criteria to evaluate potential vapor inhalation exposure risk inside the building.

110 Perimeter Park, Suite E, Knoxville, TN 37922 • tel 865.539.2077 • fax 865.539.3970 • www.strataenv.com

Sub-Slab Soil Gas Quality Assessment

Soil Gas Probe Installations

Three sub-slab soil gas probes (SG1, SG2, SG3) were installed in the building on August 11, 2020. The probes were installed in 1-1/4-inch cores that extended through the concrete slab into the granular base material beneath the slab. The probes were constructed with 3/4-inch diameter PVC piping with a 10-slot screened interval positioned ~6 to 12 inches below the base of the concrete slab. The annular space around each probe was backfilled with sand pack and capped by ~3 inches" of bentonite seal to the base of the slab foundation. Subsequently, concrete was used to bring each sampling point to surface grade. Each probe was equipped with a 1/4-inch sampling nipple and sealed at surface with a 1-1/4-inch rubber stopper placed flush against the floor.

The seal at each probe location was tested, using the water dam method, before sample collection. This test method involved placing two feet of water head on top of the probe seal, using a head load cylinder to observe changes to the water level suggestive of an imperfect seal over a 30-minute period. The results indicated each probe was adequately sealed.

Soil Gas Objectives (SGOs)

Risk-based SGO concentrations were derived for the threshold and non-threshold COCs, using guidance and default parameters from the Canadian Council of Ministers of the Environment (CCME): "A Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines" (CCME 2006) and "A Protocol for the Derivation of Soil Vapour Quality Guidelines for Protection of Human Exposures Via Inhalation of Vapours" (CCME 2014).

CCME guidelines provide risk-based SGOs for vapor inhalation assuming vapor intrusion from contamination in the subsurface of the building and its perimeter. The SGOs assume a slab-on-grade structure and coarse-textured soil under the commercial land use setting. Per CCME guidance, the default attenuation factor for commercial buildings (0.01) was used in lieu of conducting a Johnson & Ettinger (J&E) model. Attachment A presents the SGO equations for threshold and non-threshold COCs and their corresponding input parameters.

Soil Gas Sampling

On August 12 and 13, 2020, soil gas samples were extracted from SG1, SG2, and SG3 into precharged summa canisters in accordance with standard practice for laboratory analysis of PHC COCs. A peristaltic pump was used as a vacuum to purge 10 well volumes from the sampling port of each soil gas probe before sampling soil gas.

PHC COCs detected in sub-slab soil gas are presented with corresponding SGOs in Table 1. None of the detected COCs exceeded risk-based SGO concentrations. Therefore, detected concentrations of PHC COCs in sub-slab soil gas are not likely to pose a vapor inhalation exposure risk inside the building via the vapor intrusion pathway. Attachment B presents laboratory certificates of all analyses performed.

Indoor and Outdoor Air Quality Assessment

Indoor Air Quality

The indoor ambient air sample was collected inside the building in a precharged summa canister over an eight-hour period in accordance with standard practices. Per the "Indoor Air Quality Assessment as Part of an Environmental Site Assessment in Manitoba"(MSD 2017), Manitoba has adopted the Human Health Based Indoor Air Criteria provided in the Ontario Ministry of the Environment, Conservation and Parks' "Modified Generic Risk Assessment Approved Model" (Approved Model) (MOE 2016). PHC COCs detected in indoor air are presented in Table 2 and assessed against the commercial/industrial indoor air quality criteria from the Approved Model. None of the detected COCs exceeded indoor air quality criteria. Therefore, detected concentrations of PHC COCs in indoor air are not likely to pose a vapor inhalation exposure risk to building occupants.

Outdoor Air Quality

The outdoor ambient air sample was collected outside the building in a precharged summa canister over an eight-hour period in accordance with standard practices. PHC constituents detected in outdoor air are provided in Table 3. Despite being generally greater than indoor air detections, concentrations of PHC COCs detected in outdoor air do not exceed indoor air quality criteria. Thus, PHC COCs detected in outdoor air are not likely to pose a vapor inhalation exposure risk should outdoor air migrate into the building.

Conclusions

The observations and results of the SGQA performed August 11–13, 2020, indicate residual PHC impacts in the subsurface beneath the Site do not yield soil gas concentrations likely to pose an adverse vapor inhalation risk to building occupants via vapor intrusion. Furthermore, all detected PHC COCs in indoor air were below corresponding health-based criteria, indicating adverse PHC vapor inhalation conditions did not exist in the building at the time of sampling.

Sources

CCME 2006. Canadian Council of Ministers of the Environment, "A Protocol for the Derivation of Environmental and Human Health Soil Quality Guidelines," PN 1332, ISBN-10 1-896997-45-7 PDF.

CCME 2014. Canadian Council of Ministers of the Environment, "A Protocol for the Derivation of Soil Vapour Quality Guidelines for Protection of Human Exposures via Inhalation of Vapours," PN 1531, ISBN 978-1-77202-013-7 PDF.

MSD 2017. Manitoba Sustainable Development, "Indoor Air Quality Assessment as Part of an Environmental Site Assessment in Manitoba," Information Bulletin, December.

MOE 2016. (2020 August). *Ontario Ministry of the Environment and Climate Change – Modified Generic Risk Assessment Approved Model* [Online]. Available: Modified Generic Risk Assessment Approved Model.

Limitations, Exceptions, and Certification

Strata prepared this report in accordance with generally accepted engineering and environmental practices for the exclusive use of the client. No other warranties, expressed or implied, are made as to the professional services provided under the terms of our contract and included in this report.

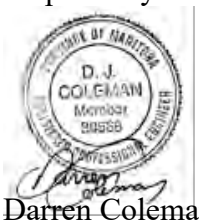
The findings and conclusions presented in this report are based exclusively on the field parameters measured and the chemical parameters tested at specific locations and are further defined by the mutually agreed upon scope of work, budget, and schedule. Subsurface conditions between and beyond the sample locations may vary. The report is not intended to be exhaustive in scope or imply a risk-free site or the marketability of the site or fitness for a particular use. Areas of the Property not accessible during the investigation may, upon removal of access limitations, be found to exhibit conditions not identified during this assessment. Any change in fact or circumstance upon which this report is based may affect the expressed findings of this report. Should this occur, Strata reserves the right to modify its opinion(s).

This report is to be used only by the client and any other party authorized in writing by Strata to rely on this report. This report is intended to be used in its entirety; taking or using excerpts from this report is not permitted and any party doing so does at its own risk. Information in this report is not to be construed as legal advice. Any use of this report by a third party not specifically authorized by Strata, and any decision made based on the information contained in this report by the third party is the sole responsibility of that third party. Strata will not accept any responsibility for damages resulting from a decision or an action made by a third party based on the information contained in this report. All data, maps, field notes, report drafts, and other related information held by Strata are confidential and restricted, and are only available to the client and, upon written approval from client, to the client's attorney or designated agents, unless otherwise required by law to be made available through discovery in litigation.

Notwithstanding these limitations, this report is believed to provide a reasonable representation of the environmental conditions apparent at the Property on the dates of measurement and chemical testing.

STRATA ENVIRONMENTAL SERVICES, INC.

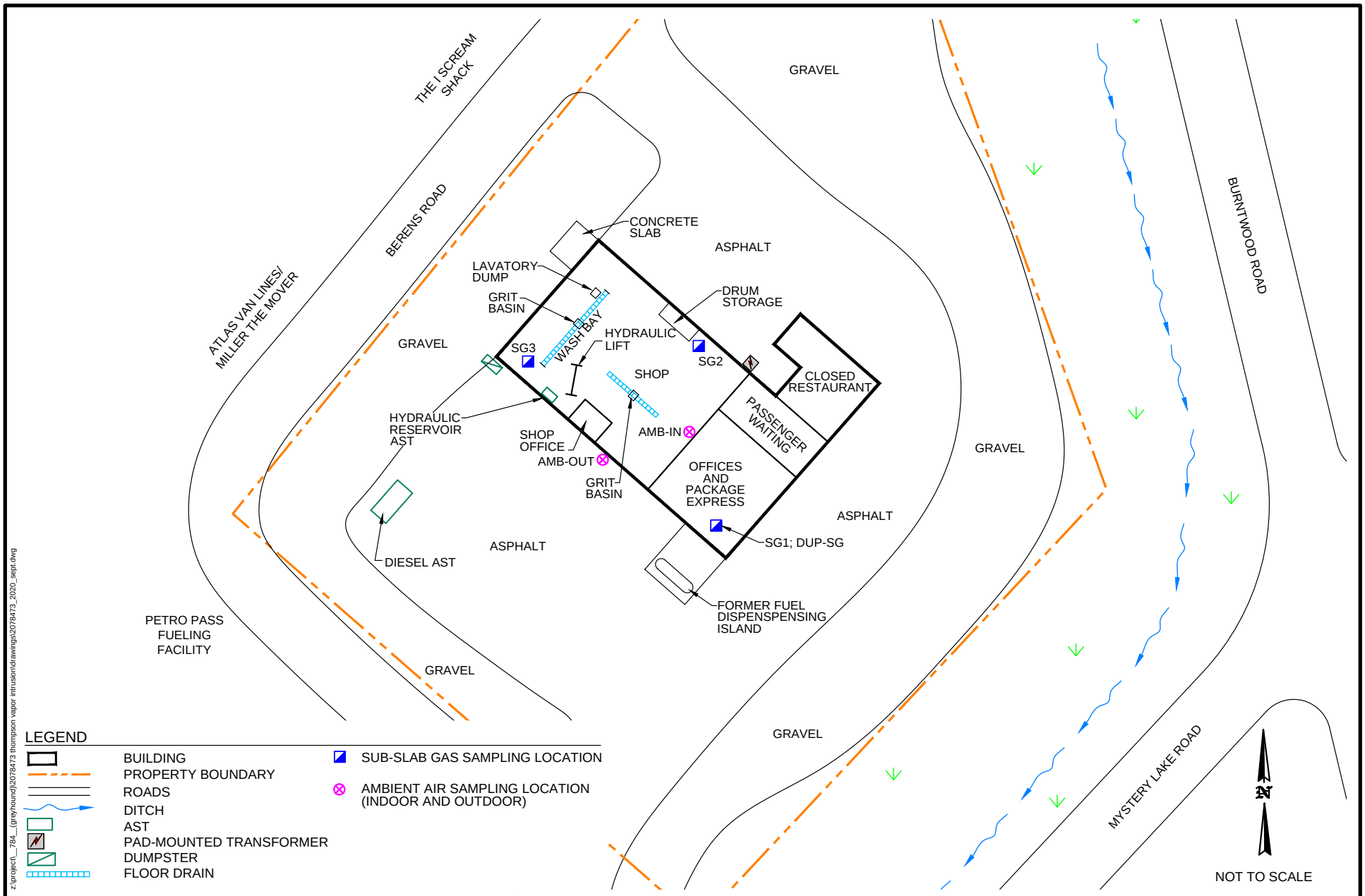
Prepared by:



Darren Coleman, P. Eng.
President (COLESTAR)

Timothy L. Riddle
Principal Geologist

FIGURE



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Strata ENVIRONMENTAL

110 PERIMETER PARK ROAD
SUITE E
KNOXVILLE, TN 37922
PHONE (865) 539-2077
FAX (865) 539-3970

PROJECT NUMBER: 2078473

DATE: September 2020

Site Plan

Greyhound Canada
81 Berens Road, Thompson, Manitoba

FIGURE 1

TABLES

Table 1 Constituents Detected in Sub-Slab Soil Gas

Parameter	Soil Gas Objective	SG1 Aug. 12, 2020	DUP-SG Aug. 12, 2020	SG2 Aug. 12, 2020	SG3 Aug. 12, 2020
Benzene	1100[1]	2.39	7.75	10.5	<0.64
Toluene	683,000	15.3	86.3	27.8	8.40
Ethylbenzene	180,000	3.93	18.3	7.62	1.35
Xylenes	32,000	25.4	99.2	18.5	7.1
PHC Aliphatic C>6-8	3,332,000	1210	623	3090	177
PHC Aliphatic C>8-10	174,000	174	608	2890	111
PHC Aliphatic C>10-12	182,000	578	2140	667	373
PHC Aliphatic C>12-16	182,000	83	133	217	129
PHC Aromatic C>8-10	29,000	45	178	<150	18
PHC Aromatic C>10-12	36,000	15	40	18	<15
PHC Aromatic C>12-16	36,000	<30	<30	<30	<30

*All values expressed in µg/m^3 (SGOs converted from mg/m^3)
[1]SGO based on 1x10^{-5} incremental risk

Table 2 Constituents Detected in Indoor Air

Parameter	Indoor Air Quality Criteria	AMB-IN Indoor Air Aug. 12, 2020
Benzene (1)	1.63	0.79
Toluene	3580	7.67
Ethylbenzene	715	<0.87
Xylenes	501	3.4
PHC Aliphatic C>6-8	32894	31
PHC Aliphatic C>8-10	1790	34
PHC Aliphatic C>10-12	1790	60
PHC Aliphatic C>12-16	1790	57
PHC Aromatic C>8-10	358	<15
PHC Aromatic C>10-12	358	<15
PHC Aromatic C>12-16	358	<30

*All values expressed in µg/m^3

Table 3 Constituents Detected in Outdoor Air

Parameter	AMB-OUT Outdoor Air Aug. 12, 2020
Benzene (1)	6.15
Toluene	61.6
Ethylbenzene	12.4
Xylenes	58.1
PHC Aliphatic C>6-8	380
PHC Aliphatic C>8-10	544
PHC Aliphatic C>10-12	1740
PHC Aliphatic C>12-16	97
PHC Aromatic C>8-10	121
PHC Aromatic C>10-12	28
PHC Aromatic C>12-16	<30

*All values expressed in µg/m^3

ATTACHMENT A
SGO INPUT PARAMETERS AND EQUATIONS

SGO INPUT PARAMETERS

Soil Gas Objectives and Input Parameters

Parameter	Tolerable Concentration	Risk Specific Concentration	Background Concentration	Soil Gas Objective
Benzene (1)	---	0.003	0	1.1
Toluene	3.8	---	0.0442	683.62
Ethylbenzene	1	---	0.0075	180.65
Xylenes	0.18	---	0.00182	32.43
PHC Aliphatic C>6-8	18.4	---	0.0911	3332.53
PHC Aliphatic C>8-10	1	---	0.03881	174.95
PHC Aliphatic C>10-12	1	---	0	182.02
PHC Aliphatic C>12-16	1	---	0	182.02
PHC Aromatic C>8-10	0.2	---	0.03745	29.59
PHC Aromatic C>10-12	0.2		0	36.40
PHC Aromatic C>12-16	0.2	---	0	36.40

*All values expressed in mg/m^3
(1) based on 10^{-5} incremental risk
Tolerable, risk specific, and background concentrations acquired from CCME Guidance

SGO EQUATIONS

Threshold SGO

SGO = (TC-Ca)*AF/(alpha*ET)

Where: SGO = Soil Gas Objective in mg/m^3
TC = tolerable concentration or reference concentration (mg/m^3)
Ca = background indoor air concentration (mg/m^3)
AF = allocation factor = 1 for benzene
= 0.5 for toluene, ethylbenzene, xylenes, and the petroleum hydrocarbon sub-fractions
Alpha = attenuation factor = 0.01
ET = exposure term
= (10 hrs/24 hrs*5 days/7 days*48 weeks/52 weeks*56 years/56years)
= 0.2747

Non-Threshold SGO (Carcinogens - Benzene)

SGOc = RsC/(alpha*ET)

Where: SGO = Soil Gas Objective in mg/m^3
RsC = Risk Specific Concentration (mg/m^3) = carcinogenic risk (10^{-5})/ inhalation UR (0.0033/(mg/m3))

ATTACHMENT B
LABORATORY CERTIFICATES

COLESTAR Environmental Inc.
ATTN: Darren Coleman
178 Fincham Avenue
Markham Ontario L3P 4B3

Date Received: 14-AUG-20
Report Date: 31-AUG-20 12:11 (MT)
Version: FINAL

Client Phone: 905-554-4156

Certificate of Analysis

Lab Work Order #: L2488638

Project P.O. #: NOT SUBMITTED
Job Reference: 0600-0414/0135
C of C Numbers:
Legal Site Desc:

Hua Wo
Chemistry Laboratory Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2488638-1 AMB-IN Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Benzene	0.79		0.64	ug/m3		31-AUG-20	R5204473
Benzene	0.25		0.20	ppb(V)		31-AUG-20	R5204473
Ethylbenzene	<0.87		0.87	ug/m3		31-AUG-20	R5204473
Ethylbenzene	<0.20		0.20	ppb(V)		31-AUG-20	R5204473
Naphthalene	<2.6		2.6	ug/m3		31-AUG-20	R5204473
Naphthalene	<0.50		0.50	ppb(V)		31-AUG-20	R5204473
Toluene	7.67		0.75	ug/m3		31-AUG-20	R5204473
Toluene	2.04		0.20	ppb(V)		31-AUG-20	R5204473
o-Xylene	0.91		0.87	ug/m3		31-AUG-20	R5204473
o-Xylene	0.21		0.20	ppb(V)		31-AUG-20	R5204473
m&p-Xylene	2.5		1.7	ug/m3		31-AUG-20	R5204473
m&p-Xylene	0.57		0.40	ppb(V)		31-AUG-20	R5204473
Xylenes (Total)	0.78		0.45	ppb(V)		14-AUG-20	
Xylenes (Total)	3.4		2.0	ug/m3		14-AUG-20	
Aliphatic C6-C8	31		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>8-C10	34		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>10-C12	60		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>12-C16	57		30	ug/m3		31-AUG-20	R5204473
Aromatic C>8-C10	<15		15	ug/m3		31-AUG-20	R5204473
Aromatic C>10-C12	<15		15	ug/m3		31-AUG-20	R5204473
Aromatic C>12-C16	<30		30	ug/m3		31-AUG-20	R5204473
F1 (C6-C10)	72		15	ug/m3		31-AUG-20	R5204473
F1-BTEX	60		15	ug/m3		31-AUG-20	
F2 (C10-C16)	148		15	ug/m3		31-AUG-20	R5204473
F2-Naphth	148		15	ug/m3		31-AUG-20	
Surrogate: 4-Bromofluorobenzene	96.8		50-150	%		31-AUG-20	R5204473
Surrogate: 4-Bromofluorobenzene	101.6		50-150	%		31-AUG-20	R5204473
Miscellaneous							
Batch Proof ID	200729.101				17-AUG-20	17-AUG-20	R5190324
Canister ID	06000-0414				17-AUG-20	17-AUG-20	R5190324
Pressure on Receipt	-8.6		-30	in Hg	17-AUG-20	17-AUG-20	R5190324
Regulator ID	CS1200-0135				17-AUG-20	17-AUG-20	R5190324
L2488638-2 AMB-OUT Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Benzene	6.15		0.64	ug/m3		31-AUG-20	R5204473
Benzene	1.93		0.20	ppb(V)		31-AUG-20	R5204473
Ethylbenzene	12.4		0.87	ug/m3		31-AUG-20	R5204473
Ethylbenzene	2.84		0.20	ppb(V)		31-AUG-20	R5204473
Naphthalene	<2.6		2.6	ug/m3		31-AUG-20	R5204473
Naphthalene	<0.50		0.50	ppb(V)		31-AUG-20	R5204473
Toluene	61.6	DLA	3.8	ug/m3		31-AUG-20	R5204473
Toluene	16.3	DLA	1.0	ppb(V)		31-AUG-20	R5204473

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2488638-2 AMB-OUT Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
o-Xylene	18.9	DLA	4.3	ug/m3		31-AUG-20	R5204473
o-Xylene	4.4	DLA	1.0	ppb(V)		31-AUG-20	R5204473
m&p-Xylene	39.2	DLA	8.7	ug/m3		31-AUG-20	R5204473
m&p-Xylene	9.0	DLA	2.0	ppb(V)		31-AUG-20	R5204473
Xylenes (Total)	13.4		2.2	ppb(V)		31-AUG-20	
Xylenes (Total)	58.1		9.6	ug/m3		31-AUG-20	
Aliphatic C6-C8	380		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>8-C10	544		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>10-C12	1740		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>12-C16	97		30	ug/m3		31-AUG-20	R5204473
Aromatic C>8-C10	121		15	ug/m3		31-AUG-20	R5204473
Aromatic C>10-C12	28		15	ug/m3		31-AUG-20	R5204473
Aromatic C>12-C16	<30		30	ug/m3		31-AUG-20	R5204473
F1 (C6-C10)	1130		15	ug/m3		31-AUG-20	R5204473
F1-BTEX	993		15	ug/m3		31-AUG-20	
F2 (C10-C16)	2140		15	ug/m3		31-AUG-20	R5204473
F2-Naphth	2140		15	ug/m3		31-AUG-20	
Surrogate: 4-Bromofluorobenzene	101.1		50-150	%		31-AUG-20	R5204473
Surrogate: 4-Bromofluorobenzene	112.6		50-150	%		31-AUG-20	R5204473
Miscellaneous							
Batch Proof ID	200729.121				17-AUG-20	17-AUG-20	R5190324
Canister ID	06000-0159				17-AUG-20	17-AUG-20	R5190324
Pressure on Receipt	-7.8		-30	in Hg	17-AUG-20	17-AUG-20	R5190324
Regulator ID	CS1200-0044				17-AUG-20	17-AUG-20	R5190324
L2488638-3 SG1 Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Benzene	2.39		0.64	ug/m3		31-AUG-20	R5204473
Benzene	0.75		0.20	ppb(V)		31-AUG-20	R5204473
Ethylbenzene	3.93		0.87	ug/m3		31-AUG-20	R5204473
Ethylbenzene	0.91		0.20	ppb(V)		31-AUG-20	R5204473
Naphthalene	6.4		2.6	ug/m3		31-AUG-20	R5204473
Naphthalene	1.21		0.50	ppb(V)		31-AUG-20	R5204473
Toluene	15.3	DLA	3.8	ug/m3		31-AUG-20	R5204473
Toluene	4.1	DLA	1.0	ppb(V)		31-AUG-20	R5204473
o-Xylene	8.85		0.87	ug/m3		31-AUG-20	R5204473
o-Xylene	2.04		0.20	ppb(V)		31-AUG-20	R5204473
m&p-Xylene	16.6		1.7	ug/m3		31-AUG-20	R5204473
m&p-Xylene	3.82		0.40	ppb(V)		31-AUG-20	R5204473
Xylenes (Total)	5.86		0.45	ppb(V)		31-AUG-20	
Xylenes (Total)	25.4		2.0	ug/m3		31-AUG-20	
Aliphatic C6-C8	1210	DLA	74	ug/m3		31-AUG-20	R5204473
Aliphatic C>8-C10	174		15	ug/m3		31-AUG-20	R5204473

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2488638-3 SG1 Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Aliphatic C>10-C12	578		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>12-C16	83		30	ug/m3		31-AUG-20	R5204473
Aromatic C>8-C10	45		15	ug/m3		31-AUG-20	R5204473
Aromatic C>10-C12	15		15	ug/m3		31-AUG-20	R5204473
Aromatic C>12-C16	<30		30	ug/m3		31-AUG-20	R5204473
F1 (C6-C10)	1270		15	ug/m3		31-AUG-20	R5204473
F1-BTEX	1220		15	ug/m3		31-AUG-20	
F2 (C10-C16)	769		15	ug/m3		31-AUG-20	R5204473
F2-Naphth	762		15	ug/m3		31-AUG-20	
Surrogate: 4-Bromofluorobenzene	100.9		50-150	%		31-AUG-20	R5204473
Surrogate: 4-Bromofluorobenzene	108.1		50-150	%		31-AUG-20	R5204473
Miscellaneous							
Batch Proof ID	200603.123				17-AUG-20	17-AUG-20	R5190324
Canister ID	06000-0485				17-AUG-20	17-AUG-20	R5190324
Pressure on Receipt	-6.9		-30	in Hg	17-AUG-20	17-AUG-20	R5190324
Regulator ID	CS1200-0079				17-AUG-20	17-AUG-20	R5190324
L2488638-4 SG2 Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Benzene	10.5		0.64	ug/m3		31-AUG-20	R5204473
Benzene	3.28		0.20	ppb(V)		31-AUG-20	R5204473
Ethylbenzene	7.62		0.87	ug/m3		31-AUG-20	R5204473
Ethylbenzene	1.75		0.20	ppb(V)		31-AUG-20	R5204473
Naphthalene	<2.6		2.6	ug/m3		31-AUG-20	R5204473
Naphthalene	<0.50		0.50	ppb(V)		31-AUG-20	R5204473
Toluene	27.8	DLA	3.8	ug/m3		31-AUG-20	R5204473
Toluene	7.4	DLA	1.0	ppb(V)		31-AUG-20	R5204473
o-Xylene	5.73		0.87	ug/m3		31-AUG-20	R5204473
o-Xylene	1.32		0.20	ppb(V)		31-AUG-20	R5204473
m&p-Xylene	12.7		1.7	ug/m3		31-AUG-20	R5204473
m&p-Xylene	2.93		0.40	ppb(V)		31-AUG-20	R5204473
Xylenes (Total)	4.25		0.45	ppb(V)		31-AUG-20	
Xylenes (Total)	18.5		2.0	ug/m3		31-AUG-20	
Aliphatic C6-C8	3090		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>8-C10	2890	DLA	150	ug/m3		31-AUG-20	R5204473
Aliphatic C>10-C12	667		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>12-C16	217		30	ug/m3		31-AUG-20	R5204473
Aromatic C>8-C10	<150	DLA	150	ug/m3		31-AUG-20	R5204473
Aromatic C>10-C12	18		15	ug/m3		31-AUG-20	R5204473
Aromatic C>12-C16	<30		30	ug/m3		31-AUG-20	R5204473
F1 (C6-C10)	5860	DLA	150	ug/m3		31-AUG-20	R5204473
F1-BTEX	5790		150	ug/m3		31-AUG-20	

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2488638-4 SG2 Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
F2 (C10-C16)	1070		15	ug/m3		31-AUG-20	R5204473
F2-Naphth	1070		15	ug/m3		31-AUG-20	
Surrogate: 4-Bromofluorobenzene	100.5		50-150	%		31-AUG-20	R5204473
Surrogate: 4-Bromofluorobenzene	117.5		50-150	%		31-AUG-20	R5204473
Miscellaneous							
Batch Proof ID	200729.108				17-AUG-20	17-AUG-20	R5190324
Canister ID	06000-0052				17-AUG-20	17-AUG-20	R5190324
Pressure on Receipt	-7.1		-30	in Hg	17-AUG-20	17-AUG-20	R5190324
Regulator ID	CS1200-0121				17-AUG-20	17-AUG-20	R5190324
L2488638-5 SG3 Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Benzene	<0.64		0.64	ug/m3		31-AUG-20	R5204473
Benzene	<0.20		0.20	ppb(V)		31-AUG-20	R5204473
Ethylbenzene	1.35		0.87	ug/m3		31-AUG-20	R5204473
Ethylbenzene	0.31		0.20	ppb(V)		31-AUG-20	R5204473
Naphthalene	<2.6		2.6	ug/m3		31-AUG-20	R5204473
Naphthalene	<0.50		0.50	ppb(V)		31-AUG-20	R5204473
Toluene	8.40		0.75	ug/m3		31-AUG-20	R5204473
Toluene	2.23		0.20	ppb(V)		31-AUG-20	R5204473
o-Xylene	2.42		0.87	ug/m3		31-AUG-20	R5204473
o-Xylene	0.56		0.20	ppb(V)		31-AUG-20	R5204473
m&p-Xylene	4.7		1.7	ug/m3		31-AUG-20	R5204473
m&p-Xylene	1.09		0.40	ppb(V)		31-AUG-20	R5204473
Xylenes (Total)	1.64		0.45	ppb(V)		14-AUG-20	
Xylenes (Total)	7.1		2.0	ug/m3		14-AUG-20	
Aliphatic C6-C8	177		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>8-C10	111		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>10-C12	373		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>12-C16	129		30	ug/m3		31-AUG-20	R5204473
Aromatic C>8-C10	18		15	ug/m3		31-AUG-20	R5204473
Aromatic C>10-C12	<15		15	ug/m3		31-AUG-20	R5204473
Aromatic C>12-C16	<30		30	ug/m3		31-AUG-20	R5204473
F1 (C6-C10)	299		15	ug/m3		31-AUG-20	R5204473
F1-BTEX	282		15	ug/m3		31-AUG-20	
F2 (C10-C16)	557		15	ug/m3		31-AUG-20	R5204473
F2-Naphth	557		15	ug/m3		31-AUG-20	
Surrogate: 4-Bromofluorobenzene	101.4		50-150	%		31-AUG-20	R5204473
Surrogate: 4-Bromofluorobenzene	104.7		50-150	%		31-AUG-20	R5204473
Miscellaneous							
Batch Proof ID	200728.22				17-AUG-20	17-AUG-20	R5190324
Canister ID	06000-0433				17-AUG-20	17-AUG-20	R5190324

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2488638-5 SG3 Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Miscellaneous							
Pressure on Receipt	-6.9		-30	in Hg	17-AUG-20	17-AUG-20	R5190324
Regulator ID	CS1200-0013				17-AUG-20	17-AUG-20	R5190324
L2488638-6 DUP-SG Sampled By: CLIENT on 12-AUG-20 Matrix: CANISTER							
Volatile Organic Compounds							
Benzene	7.75		0.64	ug/m3		31-AUG-20	R5204473
Benzene	2.42		0.20	ppb(V)		31-AUG-20	R5204473
Ethylbenzene	18.3	DLA	4.3	ug/m3		31-AUG-20	R5204473
Ethylbenzene	4.2	DLA	1.0	ppb(V)		31-AUG-20	R5204473
Naphthalene	3.9		2.6	ug/m3		31-AUG-20	R5204473
Naphthalene	0.74		0.50	ppb(V)		31-AUG-20	R5204473
Toluene	86.3	DLA	3.8	ug/m3		31-AUG-20	R5204473
Toluene	22.9	DLA	1.0	ppb(V)		31-AUG-20	R5204473
o-Xylene	29.7	DLA	4.3	ug/m3		31-AUG-20	R5204473
o-Xylene	6.8	DLA	1.0	ppb(V)		31-AUG-20	R5204473
m&p-Xylene	69.5	DLA	8.7	ug/m3		31-AUG-20	R5204473
m&p-Xylene	16.0	DLA	2.0	ppb(V)		31-AUG-20	R5204473
Xylenes (Total)	22.9		2.2	ppb(V)		31-AUG-20	
Xylenes (Total)	99.2		9.6	ug/m3		31-AUG-20	
Aliphatic C6-C8	623		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>8-C10	608		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>10-C12	2140		15	ug/m3		31-AUG-20	R5204473
Aliphatic C>12-C16	133		30	ug/m3		31-AUG-20	R5204473
Aromatic C>8-C10	178		15	ug/m3		31-AUG-20	R5204473
Aromatic C>10-C12	40		15	ug/m3		31-AUG-20	R5204473
Aromatic C>12-C16	<30		30	ug/m3		31-AUG-20	R5204473
F1 (C6-C10)	1490		15	ug/m3		31-AUG-20	R5204473
F1-BTEX	1280		15	ug/m3		31-AUG-20	
F2 (C10-C16)	2650		15	ug/m3		31-AUG-20	R5204473
F2-Naphth	2650		15	ug/m3		31-AUG-20	
Surrogate: 4-Bromofluorobenzene	99.8		50-150	%		31-AUG-20	R5204473
Surrogate: 4-Bromofluorobenzene	112.6		50-150	%		31-AUG-20	R5204473
Miscellaneous							
Batch Proof ID	200729.122				17-AUG-20	17-AUG-20	R5190324
Canister ID	06000-0470				17-AUG-20	17-AUG-20	R5190324
Pressure on Receipt	-8.4		-30	in Hg	17-AUG-20	17-AUG-20	R5190324
Regulator ID	CS1200-0036				17-AUG-20	17-AUG-20	R5190324

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Sample Parameter Qualifier key listed:

Qualifier	Description
DLA	Detection Limit adjusted for required dilution

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALIPH/AROM-GCMS-WT	Canister	Aliphatic/Aromatic PHC Sub-Fractionation	EPA TO-15, Atlantic RBCA

This analysis is performed using procedures adapted from EPA TO-15 & Atlantic RBCA. A volume of air is removed from a canister & injected into a GCMS with preconcentrator for analysis. The concentrations of the hydrocarbon aliphatic & aromatic sub-fractions are calculated using gas standards. The canister samples will be retained for 7 calendar days after final report.

BTEX+NAPH-GCMS-WT	Canister	BTEX and Naphthalene	EPA TO-15

This analysis is performed using procedures adapted from EPA Method TO-15. Air samples are collected into cleaned evacuated canisters. A volume of air sample is transferred from the canister to a preconcentrator system where the analytes are trapped & focused. The analytes are then thermally desorbed into a GC-MSD for analysis. Test results are not blank corrected unless indicated by a qualifier.

Canister samples will be retained for 7 calendar days after final report. If you require a longer canister storage time, please contact your account manager.

CAN-DATA-WT	Canister	Canister Information	EPA TO-15

Batch Proof ID, Canister ID, Pressure on Receipt, Regulator ID.

F1-F2-GCMS-WT	Canister	Total F1and F2 fractions (not corrected)	EPATO-15

This analysis is performed using procedures adapted from EPA Method TO-15. Air samples are collected into cleaned evacuated canisters. A volume of air sample is transferred from the canister to a preconcentrator system where the analytes are trapped & focused. The analytes are then thermally desorbed into a GC-MSD for analysis. Test results are not blank corrected unless indicated by a qualifier.

Canister samples will be retained for 7 calendar days after final report. If you require a longer canister storage time, please contact your account manager.

F1-F4-CALC-WT	Canister	Hydrocarbons	CALCULATION
XYLENES-SUM-CALC-WT	Canister	Sum of Xylene Isomer Concentrations	CALCULATION

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: COLESTAR Environmental Inc.
178 Fincham Avenue
Markham Ontario L3P 4B3
Contact: Darren Coleman

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALIPH/AROM-GCMS-WT	**Canister**							
Batch R5204473								
WG3391652-3 DUP		**L2488638-1**						
Aliphatic C6-C8		31	30		ug/m3	1.6	50	31-AUG-20
Aliphatic C>8-C10		34	33		ug/m3	1.3	50	31-AUG-20
Aliphatic C>10-C12		60	60		ug/m3	0.0	50	31-AUG-20
Aliphatic C>12-C16		57	58		ug/m3	1.9	50	31-AUG-20
Aromatic C>8-C10		<15	<15	RPD-NA	ug/m3	N/A	50	31-AUG-20
Aromatic C>10-C12		<15	<15	RPD-NA	ug/m3	N/A	50	31-AUG-20
Aromatic C>12-C16		<30	<30	RPD-NA	ug/m3	N/A	50	31-AUG-20
WG3391652-2 LCS								
Aliphatic C6-C8			109.5		%		50-150	27-AUG-20
Aliphatic C>8-C10			96.9		%		50-150	27-AUG-20
Aliphatic C>10-C12			94.9		%		50-150	27-AUG-20
Aliphatic C>12-C16			81.7		%		50-150	27-AUG-20
Aromatic C>8-C10			95.5		%		50-150	27-AUG-20
Aromatic C>10-C12			88.0		%		50-150	27-AUG-20
Aromatic C>12-C16			122.3		%		50-150	27-AUG-20
WG3391652-1 MB								
Aliphatic C6-C8			<15		ug/m3		15	31-AUG-20
Aliphatic C>8-C10			<15		ug/m3		15	31-AUG-20
Aliphatic C>10-C12			<15		ug/m3		15	31-AUG-20
Aliphatic C>12-C16			<30		ug/m3		30	31-AUG-20
Aromatic C>8-C10			<15		ug/m3		15	31-AUG-20
Aromatic C>10-C12			<15		ug/m3		15	31-AUG-20
Aromatic C>12-C16			<30		ug/m3		30	31-AUG-20
BTEX+NAPH-GCMS-WT	**Canister**							
Batch R5204473								
WG3391652-3 DUP		**L2488638-1**						
Benzene		0.25	0.24		ppb(V)	4.2	30	31-AUG-20
Toluene		2.04	2.06		ppb(V)	1.0	30	31-AUG-20
Ethylbenzene		<0.20	<0.20	RPD-NA	ppb(V)	N/A	30	31-AUG-20
m&p-Xylene		0.57	0.56		ppb(V)	2.6	30	31-AUG-20
o-Xylene		0.21	0.22		ppb(V)	3.6	30	31-AUG-20
Naphthalene		<0.50	<0.50	RPD-NA	ppb(V)	N/A	30	31-AUG-20
WG3391652-2 LCS								
Benzene			104.8		%		70-130	28-AUG-20
Toluene			101.4		%		70-130	28-AUG-20

Quality Control Report

Workorder: L2488638 Report Date: 31-AUG-20

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTEX+NAPH-GCMS-WT	**Canister**							
Batch R5204473								
WG3391652-2 LCS								
Ethylbenzene			96.8		%		70-130	28-AUG-20
m&p-Xylene			99.5		%		70-130	28-AUG-20
o-Xylene			99.99		%		70-130	28-AUG-20
Naphthalene			85.3		%		70-130	28-AUG-20
WG3391652-1 MB								
Benzene			<0.20		ppb(V)		0.2	31-AUG-20
Toluene			<0.20		ppb(V)		0.2	31-AUG-20
Ethylbenzene			<0.20		ppb(V)		0.2	31-AUG-20
m&p-Xylene			<0.40		ppb(V)		0.4	31-AUG-20
o-Xylene			<0.20		ppb(V)		0.2	31-AUG-20
Naphthalene			<0.50		ppb(V)		0.5	31-AUG-20
Surrogate: 4-Bromofluorobenzene			93.9		%		50-150	31-AUG-20
CAN-DATA-WT	**Canister**							
Batch R5190324								
WG3384807-1 MB								
Pressure on Receipt			-29.8		in Hg			17-AUG-20
F1-F2-GCMS-WT	**Canister**							
Batch R5204473								
WG3391652-3 DUP		**L2488638-1**						
F1 (C6-C10)		72	70		ug/m3	2.1	50	31-AUG-20
F2 (C10-C16)		148	148		ug/m3	0.2	50	31-AUG-20
WG3391652-2 LCS								
F1 (C6-C10)			103.4		%		50-150	27-AUG-20
WG3391652-1 MB								
F1 (C6-C10)			<15		ug/m3		15	31-AUG-20
F2 (C10-C16)			<15		ug/m3		15	31-AUG-20
Surrogate: 4-Bromofluorobenzene			99.3		%		50-150	31-AUG-20

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Batch Proof Report

Batch ID	Canister ID	Parameters	Value	Units	Date	Analyst
B200603.112	06000-0434	1,1,1-Trichloroethane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,1,1,2-Tetrachloroethane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,1,2,2-Tetrachloroethane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,1,2-Trichloroethane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,1-Dichloroethane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,1-Dichloroethene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,2,4-Trichlorobenzene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,2,4-Trimethylbenzene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,2-Dibromoethane	<0.01	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,2-Dichlorobenzene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,2-Dichloroethane	<0.01	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,2-Dichloropropane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,3,5-Trimethylbenzene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,3-Butadiene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,3-Dichlorobenzene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,4-Dichlorobenzene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	1,4-Dioxane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	2-Chlorophenol	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	2-Hexanone	<1.0	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	4-Ethyltoluene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Acetone	<0.50	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Allyl Chloride	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Benzene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Benzyl Chloride	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Bromodichloromethane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Bromobenzene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Bromoform	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Bromomethane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Carbon Disulfide	0.2304	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Carbon Tetrachloride	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Chlorobenzene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Chloroethane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Chloroform	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Chloromethane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	cis-1,2-Dichloroethene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	cis-1,3-Dichloropropene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Cyclohexane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Dibromochloromethane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Dichlorodifluoromethane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Ethyl Acetate	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Ethyl Benzene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Freon 113	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Freon 114	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Hexachlorobutadiene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Isooctane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Isopropyl Alcohol	<1.0	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Isopropylbenzene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	m&p-Xylene	<0.04	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Methyl Ethyl Ketone	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Methylcyclohexane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Methyl Isobutyl Ketone	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Methylene Chloride	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	MTBE	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Naphthalene	<0.05	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	n-Decane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	n-Heptane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	n-Hexane	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	o-Xylene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Propylene	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Styrene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Tetrachloroethylene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Tetrahydrofuran	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Toluene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	trans-1,2-Dichloroethene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	trans-1,3-Dichloropropene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Trichloroethylene	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Trichlorofluoromethane	<0.20	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Vinyl Acetate	<0.50	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	Vinyl Bromide	<0.20	ppb(V)	10-Jun-20	DT1

B200603.112	06000-0434	Vinyl Chloride	<0.02	ppb(V)	10-Jun-20	DT1
B200603.112	06000-0434	4-Bromofluorobenzene	106.3	%	10-Jun-20	DT1

Batch Proof Report

Batch ID	Canister ID	Parameters	Value	Units	Date	Analyst
B200728.211	06000-0239	1,1,1-Trichloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,1,1,2-Tetrachloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,1,2,2-Tetrachloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,1,2-Trichloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,1-Dichloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,1-Dichloroethene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,2,4-Trichlorobenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,2,4-Trimethylbenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,2-Dibromoethane	<0.01	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,2-Dichlorobenzene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,2-Dichloroethane	<0.01	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,2-Dichloropropane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,3,5-Trimethylbenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,3-Butadiene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,3-Dichlorobenzene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,4-Dichlorobenzene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	1,4-Dioxane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	2-Chlorophenol	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	2-Hexanone	<1.0	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	4-Ethyltoluene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Acetone	<0.50	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Allyl Chloride	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Benzene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Benzyl Chloride	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Bromodichloromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Bromobenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Bromoform	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Bromomethane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Carbon Disulfide	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Carbon Tetrachloride	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Chlorobenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Chloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Chloroform	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Chloromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	cis-1,2-Dichloroethene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	cis-1,3-Dichloropropene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Cyclohexane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Dibromochloromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Dichlorodifluoromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Ethyl Acetate	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Ethyl Benzene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Freon 113	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Freon 114	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Hexachlorobutadiene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Isooctane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Isopropyl Alcohol	<1.0	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Isopropylbenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	m&p-Xylene	<0.04	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Methyl Ethyl Ketone	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Methylcyclohexane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Methyl Isobutyl Ketone	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Methylene Chloride	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	MTBE	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Naphthalene	<0.05	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	n-Decane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	n-Heptane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	n-Hexane	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	o-Xylene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Propylene	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Styrene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Tetrachloroethylene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Tetrahydrofuran	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Toluene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	trans-1,2-Dichloroethene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	trans-1,3-Dichloropropene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Trichloroethylene	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Trichlorofluoromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Vinyl Acetate	<0.50	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	Vinyl Bromide	<0.20	ppb(V)	4-Aug-20	DT1

B200728.211	06000-0239	Vinyl Chloride	<0.02	ppb(V)	4-Aug-20	DT1
B200728.211	06000-0239	4-Bromofluorobenzene	100.3	%	4-Aug-20	DT1

Batch Proof Report

Batch ID	Canister ID	Parameters	Value	Units	Date	Analyst
B200729.109	06000-0502	1,1,1-Trichloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,1,1,2-Tetrachloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,1,2,2-Tetrachloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,1,2-Trichloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,1-Dichloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,1-Dichloroethene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,2,4-Trichlorobenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,2,4-Trimethylbenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,2-Dibromoethane	<0.01	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,2-Dichlorobenzene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,2-Dichloroethane	<0.01	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,2-Dichloropropane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,3,5-Trimethylbenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,3-Butadiene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,3-Dichlorobenzene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,4-Dichlorobenzene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	1,4-Dioxane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	2-Chlorophenol	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	2-Hexanone	<1.0	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	4-Ethyltoluene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Acetone	<0.50	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Allyl Chloride	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Benzene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Benzyl Chloride	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Bromodichloromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Bromobenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Bromoform	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Bromomethane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Carbon Disulfide	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Carbon Tetrachloride	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Chlorobenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Chloroethane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Chloroform	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Chloromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	cis-1,2-Dichloroethene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	cis-1,3-Dichloropropene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Cyclohexane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Dibromochloromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Dichlorodifluoromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Ethyl Acetate	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Ethyl Benzene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Freon 113	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Freon 114	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Hexachlorobutadiene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Isooctane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Isopropyl Alcohol	<1.0	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Isopropylbenzene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	m&p-Xylene	<0.04	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Methyl Ethyl Ketone	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Methylcyclohexane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Methyl Isobutyl Ketone	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Methylene Chloride	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	MTBE	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Naphthalene	<0.05	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	n-Decane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	n-Heptane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	n-Hexane	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	o-Xylene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Propylene	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Styrene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Tetrachloroethylene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Tetrahydrofuran	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Toluene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	trans-1,2-Dichloroethene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	trans-1,3-Dichloropropene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Trichloroethylene	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Trichlorofluoromethane	<0.20	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Vinyl Acetate	<0.50	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	Vinyl Bromide	<0.20	ppb(V)	4-Aug-20	DT1

B200729.109	06000-0502	Vinyl Chloride	<0.02	ppb(V)	4-Aug-20	DT1
B200729.109	06000-0502	4-Bromofluorobenzene	98.4	%	4-Aug-20	DT1

60 NORTHL
WATERLOO,
Phone: (519)
Fax: (519) 88
Toll Free: 1-800-668-9878

L2488638-COFC

AIR QUALITY CHAIN OF CUSTODY FORM - Canister/Tube/Gas Bag

Page 1 of 1

Note: All TAT Quoted is in **business days** which exclude statutory holidays and weekends. TAT of samples received past 3:00 pm or Saturday / Sunday begin the next day.

DATE REQUIRED

SERVICE REQUESTED
- 10 day (regular) [X]
- Rush 5 day (50%) [ ]
- Rush 3 day (100%) [ ]
- Rush 2 day (200%) [ ]
- Rush 1 day (300%) - Enquire [ ]

All rush work requires lab approval before sample submission

COMPANY NAME	Colestar
OFFICE	
PROJECT MANAGER	Darren Coleman
PROJECT #	0301-04
PHONE	905-554-4176
FAX	
ACCOUNT #	
QUOTATION #	Q78141
PO #	

REGULATION
CRITERIA
OTHER INFORMATION

REPORT FORMAT/DISTRIBUTION

EMAIL X FAX BOTH
SELECT: PDF DIGITAL BOTH
EMAIL 1
EMAIL 2 dcoleman@colestarenvironmental.com

SUBMISSION #:
ENTERED BY:
DATE/TIME ENTERED:
BIN #:

SAMPLING INFORMATION

Sample Date/Time: Date (dd-mmm-yy)	Time (24hr) (hh:mm)	Canister or Tube ID# (e.g. 060000-XXXX or G0XXXXXXSVI)	Regulator Serial # CS1200-XXXX or GXX	Matrix Type	SAMPLE DESCRIPTION TO APPEAR ON REPORT	TUBE AIR VOLUME - L or m³	BTEX & PHC F1 & F2	Aliphatic and aromatic Sub-fractions				STARTING PRESSURE - Pre-Sampling ("Hg)	ENDING PRESSURE - Post Sampling ("Hg)	COLLECTION TIME (HRS)	Field Conditions (Rain/Wind/Dust/Odour) Field PID Reading	LAB ID
Aug 12/20		06000-0414	0135	AA	Amb-in		X	X	X			-28.5	-8	8	Cloudy, 19°C	
		06000-0159	0044	AA	Amb-out		X	X	X			-28.5	-8	8		
		06000-0485	0079	SG	SG1		X	X	X			-30	-8	3.8		
		06000-0052	0121		SG2		X	X	X			-28	-7	4		
		06000-0433	0013		SG3		X	X	X			-30	-8	4		
		06000-0470	0036	↓	DUP-SG		X	X	X			-28.2	-8	3.9		

SPECIAL INSTRUCTIONS/COMMENTS

This Chain of Custody Form is only to be used for Air Quality Samples

Matrix Type
Soil Gas Vapour = SG
Ambient Air = AA
Indoor Air = IA
Industrial Hygiene = IH

SAMPLE CONDITION AS RECEIVED
FROZEN [ ]
COLD [ ]
COOLING INITIATED [ ]
AMBIENT [ ]
MEAN TEMP: 8.3
OBSERVATIONS Yes [ ] No [ ] If yes add SIF
INIT

SAMPLED BY: Carl Fraykruyter	DATE & TIME Aug 13/20	RECEIVED BY:	DATE & TIME AUG 14 2020
RELINQUISHED BY:	DATE & TIME Aug 13/20	RECEIVED AT LAB BY:	DATE & TIME

Notes

1. Quote number must be provided to ensure proper pricing

2. TAT may vary dependent on complexity of analysis and lab workload at time of submission. Please contact the lab to confirm TATs.

3. Any known or suspected hazards relating to a sample must be noted on the chain of custody in comments section.

REV6-2015