



Geotechnical Investigation for Pre-Construction Support of Future Development

**Active Petro-Canada Retail Fuel Outlet No. 35197
4000 Riverside Drive, Ottawa, Ontario**

Suncor Energy Products Partnership

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1.0 Introduction

SLR Consulting (Canada) Ltd. (SLR) was retained by Suncor Energy Products Partnership (Suncor) to provide environmental and geotechnical services to support a redevelopment Site plan application with the City of Ottawa of an existing gas station site, located in Ottawa, Ontario.

SLR had previously completed an environmental site investigation to collect information for the Phase II ESA. This report uses findings from the Phase II EAS drilling program to provide geotechnical recommendations in support of the future development of the Petro Canada Service Station property located at 4000 Riverside Drive in Ottawa, Ontario (the Property).

The Geotechnical Investigation and report have been completed in accordance with SLR's work plan, dated November 2025. This report is limited to the geotechnical scope of services and the environmental aspects of SLR's services are provided under a separate cover for the Phase II Environmental Site Investigation dated November 25, 2024.

2.0 Project Understanding

The Site is located at 4000 Riverside Drive in Ottawa, Ontario, as shown in **Figure 1** and **Figure 2**. The current property is occupied by a retail fuel outlet that consists of a pump island, car wash, garbage storage shed and kiosk. Underground facilities include three (3) underground storage tank (USTs) containing gasoline, the associated underground product piping, and two oil/water separators.

SLR understands that Suncor plans to complete a site re-development for consisting of interior renovations of the kiosk, repaving to incorporate a fire route and a drive thru lane for the A&W restaurant, and installation of underground Earthbins for garbage and recycling. The proposed site layout for the re-development is shown in **Figure 3**.

3.0 Scope of Work

- The geotechnical scope of work includes the review of the SLR Phase II Environmental Site Investigation, including the borehole logs and laboratory analysis.
- This geotechnical report summarizing the Geotechnical Investigation and necessary geotechnical recommendations related to the proposed redevelopment.

4.0 Field Investigation

4.1 Drilling Investigation

Prior to the field investigation, SLR personnel completed a site-specific health and safety plan for the investigation, reviewed available utility drawings and obtained public utility clearance through the Ontario One-Call program. A third-party private utility search was also completed at each of the borehole locations. Hydrovac excavations were also completed between October 1 and 3, 2024, by Badger Daylighting (Badger) of Carp, Ontario at all the borehole locations to a depth of about 2.4 m below ground surface (mbgs) to clear locations of underground utilities prior to drilling. Geo Environmental Drilling Inc. (Geo) an MECP licensed drilling contractor, was retained to undertake drilling activities at the Site between October 7 and 10, 2024.

The field investigations consisted of drilling nine (9) boreholes for environmental purposes (denoted herein as Boreholes BH24-01 to BH24-09). The boreholes were advanced through the



hydrovac excavations, utilizing a truck-mounted CME-75 drill rig equipped with an automatic SPT hammer. SLR staff were on site to observe and record the subsurface soil and groundwater conditions at each borehole, monitor the Standard Penetration Testing (SPT) method (ASTM D 1586), and collect representative samples.

A total of two (2) monitoring wells were installed at Boreholes BH24-06 and BH24-08 (also referred to as MW24-06 and MW24-08) to measure the groundwater levels. The standpipes consisted of standard 50 mm (2 inch) PVC screen and solid riser pipe. All the monitoring wells were covered with flush mount protective cases.

The boreholes were positioned at the approximate locations shown in **Figure 2**. A summary of the coordinates and drill depths for the completed boreholes is provided in **Table 1**.

Table 1: Summary of Boreholes

Borehole No.	Easting ¹ (m)	Northing ¹ (m)	Final Depth (mbgs) ²	Ground Surface Elevation (masl) ³
BH24-01	445596.4	5020225.3	6.7	102.9
BH24-02	445629.2	5020246.5	5.2	102.6
BH24-03	445650.5	5020253.3	6.7	103.3
BH24-04	445628.9	5020286.5	6.7	102.3
BH24-05	445608.2	5020286.2	6.7	102.3
BH24-06	445592.8	5020277.1	17.4	102.8
BH24-07	445609.6	5020257.9	6.7	102.6
BH24-08	445597.8	5020258.0	17.4	103.1
BH24-09	445591.2	5020238.0	8.2	103.1
Notes: ¹ GPS device coordinates were collected by J.D. Barnes on October 16 th , 2025. Datum of coordinates is UTM Zone 18 NAD83 (CSRS). ² mbgs - meter below ground surface ³ masl - meter above sea level				

As part of the investigation, disturbed soil samples (grab samples) were collected from the side wall of the hydrovac holes using a sample collector, and from the SPT split spoon sampler during drilling.

In-situ testing comprising of SPTs were conducted at select depths at each borehole. A 24" (609 mm) long split spoon sampler was used. The number of blows to push the sampler into the soil over four 0.15 m increments were recorded and the first increment was neglected and the sum of blows over the second and third increments was recorded as the SPT-N value, which is shown on the Borehole Record sheets in **Appendix A**.

In cases, where the sampler did not advance a full 0.15 m increment within 50 blows, the depth of advance was recorded, and the test was considered to have reached practical refusal and testing was stopped to prevent damage to equipment.

The depths and results of the SPT's, sample types and depths, monitoring well installations and subsurface descriptions are provided in the Borehole Record sheets provided in **Appendix A**.



4.2 Laboratory Testing

Laboratory testing from the SLR Phase II Environmental Site Investigation relevant to the geotechnical investigation was the particle size analysis testing on select samples. Particle size analysis involved the use of the #200 sieve (0.75mm) to determine the amount of coarse (sand and gravel) and fine (silt and clay) soil distribution in each select sample. The laboratory test results are provided as part of the Laboratory Certificate of Analysis in **Appendix B**.

A summary of the particle size analysis is provided in **Table 2**.

Table 2: Summary of Particle Size Analysis Testing

Borehole No.	Depth (mbgs)	Particle Size Distribution (%)	
		Coarse: Sand and Gravel (>0.075mm)	Fine: Silt and Clay (<0.075mm)
BH24-02	0.5 ~ 1.0	96	4
BH24-06	9.1 ~ 9.8	93	7
BH24-06	16.8 ~ 17.4	90	10
BH24-07	6.1 ~ 6.7	94	6
BH24-08	1.0 ~ 1.5	96	4

5.0 Subsurface Conditions

5.1 Site and Regional Geology

The Site is situated within the Russell and Prescott Sand Plains physiographic region of Southern Ontario (Chapman and Putnam, 1984). The physiographic landform of the site is comprised of sand plains (Chapman and Putnam, 1984).

A review of available Ontario surficial geology mapping indicated that the overburden materials of the site is generally comprised of coarse-textured glaciomarine deposits. Bedrock geology mapping indicates that the Site is underlain by bedrock comprised of dolostone and sandstone of the Beekmantown Group (Ontario Geological Survey, 2011).

5.2 Soil

The soil descriptions provided in this report are based on accepted standard methods of classification and identification routinely used in current geotechnical standards of practice. The subsurface conditions encountered in each of the boreholes are presented on the Borehole Record sheets provided in **Appendix A**. The stratigraphic boundaries shown on the Borehole Records are inferred from observations made during drilling and represent transitions between soil types rather than exact planes of geological changes.

Pavement Structure

Pavement structure was encountered at the surface of all boreholes. The existing pavement structure encountered from these boreholes are summarized in **Table 3**.



Table 3: Existing Pavement Structure

Borehole No.	Thickness of Pavement Structure		
	Asphalt (mm)	Granular Base / Subbase (mm) ¹	Total (mm)
BH24-01	75	425	500
BH24-02	100	400	500
BH24-03	95	405	500
BH24-04	65	435	500
BH24-05	100	400	500
BH24-06	75	425	500
BH24-07	100	400	500
BH24-08	50	450	500
BH24-09	50	450	500
Notes:			
¹ Thickness of granular base / subbase is to be considered approximate based on observation during daylighting .			

Fill Materials

Fill materials consisting of sands and gravels, were encountered below the pavement structure in all boreholes. Fill materials extended to depths ranging from about 0.5 to 2.4 m below existing ground surface.

Sand

Sand deposits were encountered beneath the fill materials in all boreholes and extended to depths ranging from 5.2 to 17.4 m below existing ground surface. All boreholes were terminated in these deposits. SPT 'N' values ranging from 2 to 41 blows per 300 mm penetration indicated very loose to dense consistency.



5.3 Groundwater

Monitoring wells were installed at Boreholes BH25-06 to BH25-08 to measure the groundwater levels. Groundwater level measurements were taken from each of the installed monitoring wells on October 18, 2025. The measured groundwater levels ranged from about 16.4 to 16.6 m below ground surface. A summary of the groundwater level measurements is provided in **Table 4**.

Table 4: Summary of Groundwater Level Readings

Monitoring Well ID	Screened Interval (mbgs) ¹	Groundwater Depth (mbgs) ¹ / Groundwater Elevation (masl) ²
		October 18, 2024
BH24-06	14.9 ~ 17.4	16.6 / 86.2
BH24-08	14.9 ~ 17.4	16.4 / 86.7
Notes: ¹ mbgs - meter below ground surface ² masl - meter above sea level		

It should be noted that groundwater levels can be expected to seasonally fluctuate from higher to lower elevation depending on precipitation, runoff conditions and other salient factors.

6.0 Geotechnical Investigation and Recommendations

SLR understands that Suncor plans to complete a site re-development consisting of interior renovations of the kiosk, repaving to incorporate a fire route and a drive thru lane for the A&W restaurant, and installation of underground Earthbins for garbage and recycling.

The geotechnical investigation and general recommendations for the design and construction of the proposed site re-development are as follows:

- The subsurface conditions are considered suitable for the installation of the proposed Earthbins and new pavements structure.
- Measurement from installed monitoring wells indicated groundwater at depth (i.e., within about 16.4 to 16.6 m below existing ground surface).
 - Temporary dewatering, such as pumping from temporary sumps or other means as may be required to control inflow of water from granular subsurface soils for excavations below the groundwater level.
 - Design of subsurface structures below the groundwater table to consider hydrostatic forces or installation of permanent groundwater control (i.e., drainage) measures, and buoyancy effects for below grade structures, as may be required.

The geotechnical recommendations provided are intended for the guidance of the design engineer. Where comments are made on construction, they are provided to highlight aspects of construction that could affect the design of the project and constructability from a geotechnical perspective. Those requiring information on aspects of the site beyond the scope of this report must make their own interpretation of the information provided.



6.1 Geotechnical Parameters

Based on the results of the field investigation and experience with similar soils, estimated geotechnical soil parameters are provided in **Table 5**.

Table 5: Estimated Geotechnical Soil Parameters

Soil Type	New Granular Fill		Existing Fill	Non-Cohesive Native Soils – Gravelly Sand, Sand, Silty Sand (Till) / Sandy Silt (Till), Silt							Cohesive Native Soil – Clayey Silt (Till) / Silty Clay (Till)				
	'A'	'B'		4-50	5-10	11-14	15-29	30-39	40-50	>50	3-9	10-14	15-29	30-50	>50
Unit weight (kN/m ³)	22	21	19	19	20	21	21.5	22	22.5	19	20.5	21	21.5	22.5	
Effective angle of internal friction (°), ϕ'	35	32	24	26	28	30	32	34	37	26	28	30	32	34	
Effective cohesion, c' (kPa)	-	-	-	-	-	-	-	-	-	0	2	5	10	10	
Undrained shear strength (kPa)	-	-	-	-	-	-	-	-	-	40	70	100	200	300	
Coefficient of lateral earth pressure															
Active, K_a	0.27	0.31	0.42	0.39	0.36	0.33	0.31	0.28	0.25	0.39	0.36	0.33	0.31	0.28	
At rest, K_o	0.43	0.47	0.59	0.56	0.53	0.50	0.55	0.60	0.80	0.56	0.53	0.50	0.60	1.00	
Passive, K_p	3.69	3.25	2.37	2.56	2.77	3.00	3.25	3.54	4.03	2.56	2.77	3.00	3.25	3.54	
Elastic modulus (MPa)	-	-	-	5	6.3	8	30	40	50	4	8	15	30	50	
Poisson's ratio	-	-	-	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
Modulus of subgrade reaction, k (MN/m ³) (*)	-	-	-	5/B	6.3/B	8/B	30/B	40/B	50/B	4/B	8/B	15/B	30/B	50/B	
Lateral modulus of subgrade reaction, K_h (MN/m ³) (*)	-	-	-	5/B	6.3/B	8/B	30/B	40/B	50/B	4/B	8/B	15/B	30/B	50/B	

Notes:

* B is the width of footing or width of wall/pile in metres.



6.2 Earthbins

6.2.1 Support and Bedding

All topsoil, fill materials, and disturbed or other unsuitable material must be removed from excavation base prior to placement of earthbin bedding.

The borehole information indicates that the native soils encountered at the site are capable of providing adequate support for the earthbin using conventional granular bedding. The recommended minimum thickness of granular bedding below the footing of the earthbin is 300 mm where the subgrade consists of competent native soils.

Where the fill or otherwise unsuitable soils are present at the proposed earthbin footing elevation, the unsuitable materials should be sub-excavated and replaced using conventional granular bedding. In this case, the recommended minimum thickness of granular bedding below the invert of the Earthbin is 300 mm. Geotechnical inspection is required to confirm suitable founding conditions.

The compacted granular base material for the earthbin should consist of OPSS 1010 Granular “A” type material. All granular materials should be placed in loose lifts of 150 mm thickness and then compacted. The granular bedding materials should be compacted to 100% of Standard Proctor Maximum Dry Density (SPMDD) at a placement water content within $\pm 2\%$ of the materials optimum.

6.2.2 Bearing Resistance

If required, footings for the earthbins may be founded on the native undisturbed compact to dense sand and can use an allowable (SLS) bearing resistance of 100 kPa and a factored ULS bearing resistance of 150 kPa. Structures designed to the specified bearing resistance at SLS are expected to settle less than 25 mm total and 19 mm differential.

6.2.3 Frost Protection Recommendations

All footings exposed to seasonal freezing conditions must have at least 1.8 metres of soil cover for frost protection.

If soil cover is not possible, a 25 mm thick layer of polystyrene insulation is thermally equivalent to 600 mm of soil cover. It is also emphasized that underfloor drainage and/or an adequate free draining gravel base is required to minimize the risk of floor dampness. Floor dampness could lead to temporary icing and the risk of accidents.

6.3 Lateral Earth Pressure

The lateral earth pressure acting on the permanent rigid walls of the underground structures in overburden soils can be evaluated by the following formula:

$$P_h = K (\gamma h + q)$$



where P_h = Lateral earth pressure acting at depth “h” (kPa)
 K = Earth pressure coefficient at rest for a horizontal ground surface condition,
as shown in **Table 5**
 γ = Unit weight of backfill, as shown in **Table 5**
 h = Depth below finished grade of the point of interest (m)
 q = Equivalent value of surcharge on the ground surface (kPa)

If there is no provision for drainage of the backfill behind the subsurface walls, the walls should be designed to resist the lateral earth pressure and the hydrostatic pressure imposed by the backfill adjacent to the wall.

Below the water table, the submerged unit weight of the soil should be used and the full hydrostatic water pressure from ground surface should be added. If the ground surface is not horizontal, the uneven portion can be treated as an equivalent surcharge load.

6.4 Excavation and Backfilling

According to the results of this investigation, the excavations are generally anticipated to be carried out in the fill materials and native sand deposits. This excavation can be carried out with heavy hydraulic backhoe.

Possible large obstructions such as buried concrete pieces and existing foundations may also be encountered at the Site within the fill materials. Provisions must be made in the excavation contract for the removal of possible boulders in the till or obstructions in the fill material.

All excavations must be carried out in accordance with the most recent Occupational Health and Safety Act (OHSA). In accordance with OHSA, the fill materials and loose to compact sand would be classified as Type 3 Soils above the groundwater table and Type 4 soils below the groundwater table.

It may be necessary to flatten the excavation slopes if seepage zones or loose/soft conditions are encountered locally. Excavations should be continuously examined for any evidence of instability if left open for extended periods of time or following weather events such as rain or freeze/thaw.

It is anticipated that foundation excavations at the site will consist of temporary open cuts with side slopes not steeper than 1.5 horizontal to 1 vertical (1.5H:1V). However, depending on the construction procedures adopted by the contractor and weather conditions at the time of construction, some local flattening of the slopes might be required. Where side slopes of excavations are to be steepened, then a temporary excavation support system such as steel sheeting will be required.

Vertical cuts in any of the soil types and over-steepened slopes should be supported with shoring and bracing to safeguard the stability of the sides of the excavation.

The existing fill in the boreholes is generally not suitable for re-use as backfill. The native soils free from topsoil and organics can be used as general construction backfill. The suitability for reuse of the native soils is further discussed in **Section 6.8**. Loose lifts of soil, which are to be compacted, should not exceed 200 mm. Depending on the time of construction and weather, some excavated material may be too wet to compact and will require aeration prior to its use.

Under floor fill should be compacted to at least 98% of Standard Proctor Maximum Dry Density (SPMDD). The excavated soils are not considered to be free draining. Where free draining



backfill is required, imported granular fill such as OPSS Granular “B” should be used. Imported granular fill, which can be compacted with handheld equipment, should be used in confined areas.

It should be noted that the excavated soils are subject to moisture content increase during wet weather which would make these materials too wet for adequate compaction. Stockpiles should be compacted at the surface or be covered with tarpaulins to minimize moisture uptake.

It is expected that any seepage above the groundwater table can be removed by pumping from sumps in the building development area. Depending upon the actual thickness and extent of the sandy fill and native sandy soils, the prevailing groundwater level at the time of construction, “active, advance” dewatering measure using well points/eductors may be required to maintain the stability of the base and side slopes of the excavations in these areas. These ‘active dewatering’ measures would have to be installed and then operated for one to two weeks in advance of excavation work progressing to these areas. A contractor specializing in dewatering should be retained to design the active dewatering systems.

It should be noted that if the construction dewatering system/sumps result in a water taking of more than 50,000 L/day but less than 400,000 L/day, a registration should be made in the Environmental Activity and Sector Registry (EASR). If a water taking is more than 400,000 L/day, a permit to take water (PTTW), issued by the MECP, may be required.

6.5 Seismic Site Classification

The 2012 Ontario Building Code (OBC 2012) came into effect on January 1, 2014, and contains updated seismic analysis and design methodology. The seismic site classification methodology outlined in the code is based on the subsurface conditions within the upper 30 m below existing grade.

The conservative site classification is based on physical borehole information obtained at depths of less than 30 m and based on general knowledge of the local geology and physiography. In this regard, SLR’s drilling program included boreholes drilled to depths up to 17.4 m below the existing ground surface. Based on the borehole information and our local experience, a Site Class D may be used for the design for this site.

Should optimization of the site class be recommended by the structural engineer, a field seismic shear wave velocity test should be considered to confirm the classification.

6.6 Proof Rolling

Upon completion of initial site preparation activities (as discussed above), proof rolling of the subgrade should be conducted to verify that competent and uniform soil subgrade support conditions have been achieved. Proof rolling should not be conducted during or shortly following precipitation events, and heavy equipment shall not be allowed to travel on wet/soft subgrade soils until adequate drying has occurred. Proof rolling should be performed by two passes of a dual-wheel truck (or comparable equipment) with a minimum of 80 kN single axle load. Soils which display rutting or appreciable deflections upon proof-rolling should be over-excavated to expose more competent soil and replaced with suitable engineered fill. Alternately, the use of geosynthetics (woven geotextile, geogrid in conjunction with non-woven geotextile, or combination geotextile/geogrid products), possibly in conjunction with some over-excavation, may be an alternative. If geosynthetics are utilized, it is recommended that granular fill materials be placed directly over the geosynthetics. The geosynthetics should be placed in accordance with the manufacturer’s recommendations. Construction techniques should be designed to minimize the potential for damage to the geosynthetics and underlying subgrade soils (i.e., end-dump and



spread methods, use of long reach and/or low contact pressure equipment, etc.). SLR should be retained to provide guidance with respect to subgrade improvement measures.

Following efforts to stabilize the soil, proof rolling should be repeated. All proof rolling and compaction efforts should include documentation detailing the findings, including photographs where possible.

6.7 Pavement Design

The structural thickness recommendations herein were designed using the AASHTO 1993 Pavement Design Guide. The design used an overall standard deviation of 0.45, a loss of serviceability of 1.7 (initial serviceability of 4.2 and a terminal serviceability of 2.5), a drainage coefficient of 1.0 and a reliability of 85%. The structural layer coefficients (a_i) and drainage coefficients (m_i) used to determine the geotechnical design thickness are shown in **Table 6** which are in accordance with the Ontario Ministry of Transportation and Infrastructure.

Table 6: AASHTO 1993 Pavement Design Parameters

Material Description	Structural Layer Coefficient [a_i]	Drainage Coefficient [m_i]
Asphalt Concrete Pavement (ACP)	0.40	-
Base Course Gravel	0.14	0.95
Prepared Sand and Gravel Subgrade	0.10	0.95

Based on the existing pavement thickness and subsurface conditions encountered at the boreholes, the recommended pavement structure for light (i.e. passenger vehicles) and limited heavy duty (infrequent delivery, garbage, fuel truck loading) traffic loading with assumed maximum equivalent single axle load (ESAL's) as shown below, is provided in **Table 7**.

Table 7: Pavement Structure

Pavement Layer	Compaction Requirements	Maximum 1×10^5 ESAL's [mm]	Structural Number (SN)
Asphaltic Concrete	93%	100	40
Base Course Gravel	Maximum Relative Density (MRD)	150	20
OPSS Granular "A" Base (or 20mm Crusher Run Limestone)	100% SPMDD*	350	33
OPSS Granular "B" (or 50mm Crusher Run Limestone)	100% SPMDD	525 Mr = 35 MPa	93 Required SN=87
Notes: * Denotes Standard Proctor Maximum Dry Density, ASTM-D698			

The pavement structure assumes that the construction will be completed at a drier time of year and the subgrade is stable. If the subgrade becomes wet or rutted during construction activities



additional subbase may be required. The subgrade must be compacted to 98% SPMDD for at least the upper 500 mm unless accepted by SLR.

It is recommended that qualified SLR personnel conduct an inspection of excavated areas. Use a nonwoven geotextile on the surface of the subgrade if areas of concern be identified and finish to a tight, smooth surface that is free from ruts, waves, and roller marks.

The long-term performance of the pavement structure is highly dependent upon the subgrade support conditions. Stringent construction control procedures should be maintained to ensure uniform subgrade moisture and density conditions are achieved. In addition, the need for adequate drainage cannot be over-emphasized. The finished pavement surface and underlying subgrade should be free of depressions and should be sloped (preferably at a minimum grade of two percent) to provide effective surface drainage toward catch basins. Surface water should not be allowed to pond adjacent to the outside edges of pavement areas. Subdrains should be installed to intercept excess subsurface moisture and prevent subgrade softening. This is particularly important in heavy-duty pavement areas.

Additional comments on the construction of access road, internal roadways and parking areas are as follows:

- 1) As part of the subgrade preparation, proposed parking areas and access roadways should be stripped of topsoil, fill materials, weak native soils, and other obvious objectionable material. Fill required to raise the grades to design elevations should conform to backfill requirements outlined in previous sections of this report. The subgrade should be properly shaped, crowned then proof-rolled in the full-time presence of a qualified engineering personnel. Soft or spongy subgrade areas should be sub-excavated and properly replaced with suitable approved backfill compacted to 98% SPMDD.
- 2) The locations and extent of sub-drainage required within the paved areas should be reviewed by this office in conjunction with the proposed lot grading. Assuming that satisfactory crossfalls in the order of two percent have been provided, subdrains extending from and between catch basins may be satisfactory. In the event that shallower crossfalls are considered, a more extensive system of sub-drainage may be necessary and should be reviewed by a specialized pavement engineer.

The most severe loading conditions on light-duty pavement areas and the subgrade may occur during construction. Consequently, special provisions such as restricted access lanes, half-loads during paving, etc., may be required, especially if construction is carried out during unfavourable weather.

6.8 Geotechnical Quality of Excavated Soils

Reference to the borehole logs suggests that the excavated materials with respect to their compaction characteristics can be divided into two groups:

- **Group 1** comprises the pavement granular base/subbase materials encountered near the surface, and sand soils. These materials are expected to have good compaction characteristics and could be reused as construction backfill provided that they are carefully segregated from the more silty or clayey soil strata. Some drying of the sand will likely be required. There are limited quantities of these materials available.



- **Group 2** soils consist of unsuitable materials because of their high moisture or organic inclusions, including all existing fill materials. These soils should be either disposed off-site or should be used only in “soft” landscaping areas where they can be placed with nominal compaction, and where surface settlements are tolerable. If soils are disposed of off-site, a qualified person should ensure disposal is in compliance with O.Reg 406/19 (excess soil management).

As a general requirement, all backfill material should be placed in 200 to 300mm thick loose lifts and compacted to at least 96% of SPMDD, at a placement moisture content within $\pm 2\%$ of the optimum. Below future pavements, the backfill must be Granular “A” or “B” material, and the top 1.5m of subgrade backfill below the underside of the pavement structure should be compacted to 98% of SPMDD. Where a free-draining backfill is needed or where the backfill is needed for structural support of overlying structures, the site soils will not be suitable and OPSS Granular “A” or “B” sand and gravel will be required. Similarly, during work in the autumn, winter and spring months, re-use of the excavated soils as compacted fill may not be practical and imported OPSS Granular “B” should be used.

6.9 Preconstruction Condition Survey

It is recommended that a preconstruction survey of neighboring properties and any adjacent utilities and structures be completed prior to excavation and throughout the construction period.

Additionally, the types and condition of all adjacent structures and underground services should be reviewed by the structural and geotechnical engineer to determine potential underpinning requirements as conceptually identified in **Figure 4**. Utility owners should be contacted to establish deformation limits. The deformation should be monitored throughout the construction period.

6.10 Field Review and Quality Control

It is recommended that geotechnical field reviews be carried out to assess the actual soil conditions encountered and confirm assumptions used in the design. Where conditions encountered differ significantly from those assumed for design, SLR should be provided with an opportunity to review the design assumptions and modify the design, as appropriate. Field reviews should include review of footing excavations and quality control testing carried out to assess conformity with design.

In order to provide Ontario Building Code Letters of Assurance, SLR personnel must review the work during various stages of construction which includes but is not limited to subgrade excavation and preparation, excavated slopes and temporary shoring or trenching activities, placement and compaction of fill, and implementation of any drainage measures. SLR must be notified at least 24 hours in advance when the work is ready for field review and inspection.



7.0 Closure

We trust the above information meets your current requirements. Please contact the undersigned if there are any questions.

Regards,

SLR Consulting (Canada) Ltd.



Iqbal Budwal, M.Sc., EIT.
Geotechnical Engineer in Training



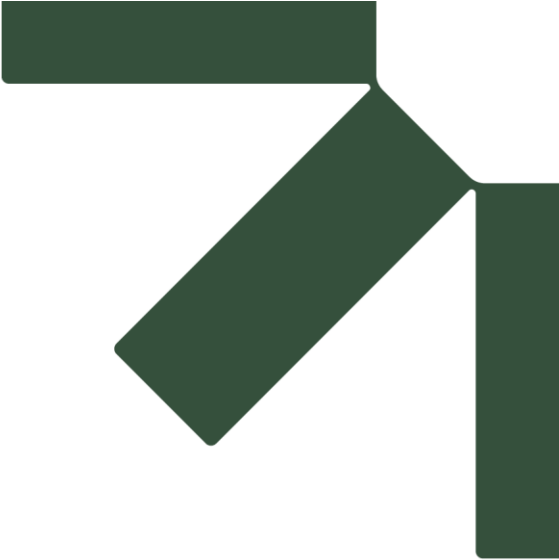
Matthew D. St Denis, P.Eng.
Team Lead, Geotechnical Engineering East



8.0 References

- ASTM International. 2018. *ASTM D1586 / D1586M-18, Standard test method for standard penetration test (SPT) and split-barrel sampling of soils.*
- Canadian Geotechnical Society;. 2023. *Canadian Foundation Engineering Manual, 5th Edition.*
- Chapman, L.J. and Putnam, D.F. 1984. *Physiography of southern Ontario; Ontario Geological Survey.*
- Environment and Natural Resources . 2020. *Government of Canada.* July 22.
https://climate.weather.gc.ca/climate_normals/index_e.html.
- Ontario Geological Survey . 2011. "1:250 000 scale bedrock geology of Ontario; Ontario Geological Survey, Miscellaneous Release---Data 126-Revision 1."
- Ontario Geological Survey. 2010. "Surficial geology of southern Ontario; Ontario Geological Survey, Miscellaneous Release— Data 128 – Revised."
- SLR. 2025. "Phase II Environmental Site. Active Petro-Canada Retail Fuel Outlet No. 35197, 4000 Riverside Drive, Ottawa, Ontario."





Figures

Geotechnical Investigation for Pre-Construction Support of Future Development

Active Petro-Canada Retail Fuel Outlet No. 35197
Ottawa, Ontario

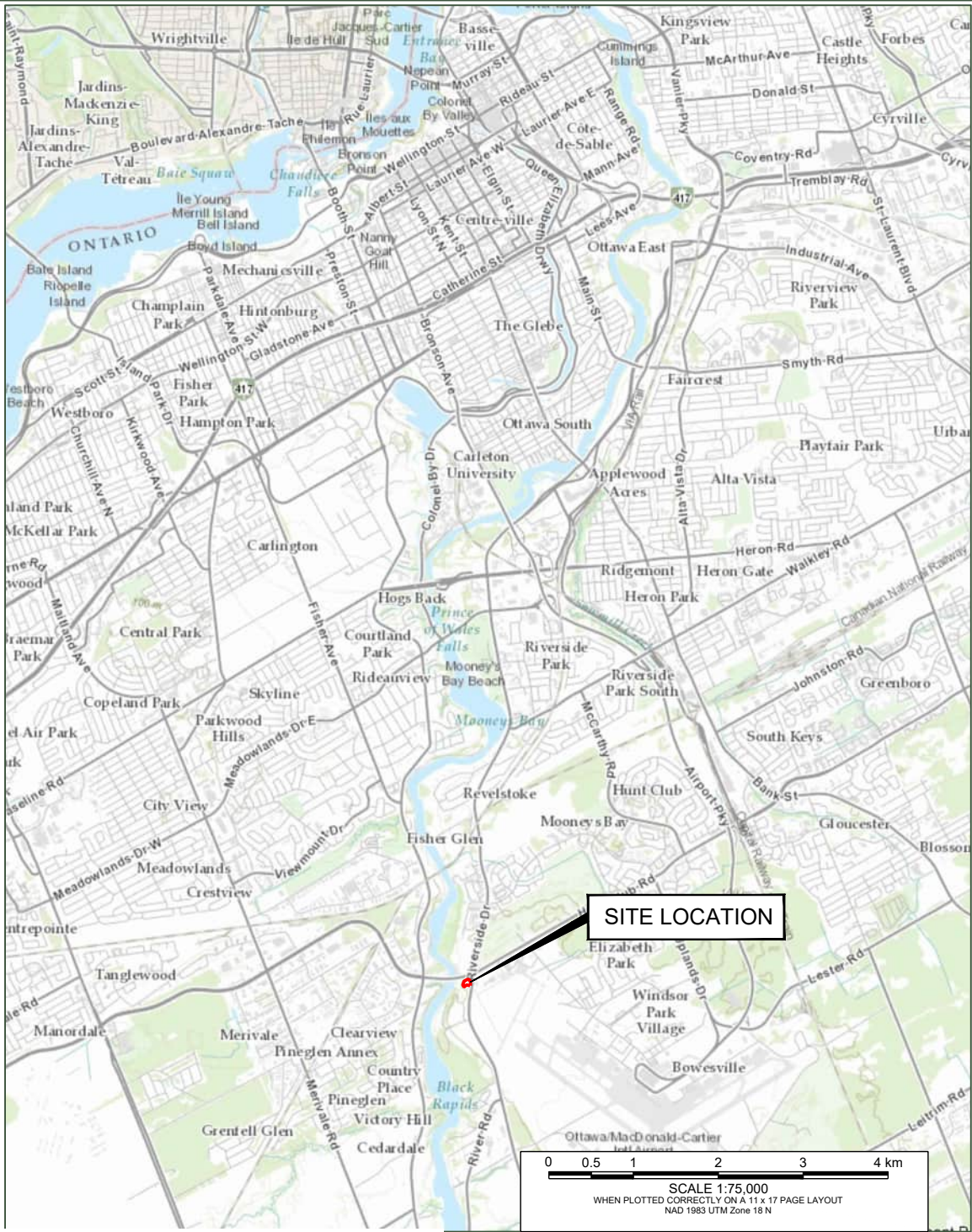
4000 Riverside Drive,

Suncor Energy Products Partnership

SLR Project No.: 216.030059.00003

December 8, 2025

Cadfile name: S_216-030059-00002-A1.dwg



NOTES:
NOT A LEGAL SURVEY. DO NOT USE FOR CONSTRUCTION.

REFERENCED FROM: JD BARNES PLAN OF SURVEY WITH TOPOGRAPHIC DETAILS OF PART OF LOT 6, CONCESSION 2 (RIDEAU FRONT) REFERENCE No. 24-10-007-04, DATES: FEBRUARY 14, 2024 AND OCTOBER 16, 2024, SERVICE ONTARIO PROPERTY INDEX MAP, OTTAWA-CARLETON (No. 4) AND SITE RECONNAISSANCE INFORMATION.

IMAGERY: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY (IMAGE DATE: 2023)

BASEDATA:
ESRI, HERE, GARMIN, INTERMAP, INCREMENT P CORP., GEBCO, USGS, FAO, NPS, NRCAN, GEOBASE, IGN, KADASTER NL, ORDNANCE SURVEY, ESRI JAPAN, METI, ESRI CHINA (HONG KONG), © OPENSTREETMAP CONTRIBUTORS, AND THE GIS USER COMMUNITY

LEGEND:

- PROPERTY BOUNDARY (PROPERTY IDENTIFICATION NUMBER: 04589-1660)
- ▭ SITE BOUNDARY (LEASE INSTRUMENT BOUNDARY - OC339605)
- WATER FEATURE

NOT A LEGAL SURVEY. DO NOT USE FOR CONSTRUCTION.

REFERENCED FROM: JD BARNES PLAN OF SURVEY WITH TOPOGRAPHIC DETAILS OF PART OF LOT 6, CONCESSION 2 (RIDEAU FRONT) REFERENCE No. 24-10-007-04, DATES: FEBRUARY 14, 2024 AND OCTOBER 16, 2024, SERVICE ONTARIO PROPERTY INDEX MAP, OTTAWA-CARLETON (No. 4) AND SITE RECONNAISSANCE INFORMATION.

IMAGERY: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY (IMAGE DATE: 2023)

0 25 50 100 150 200 250 m
SCALE 1:4,000
WHEN PLOTTED CORRECTLY ON A 11 x 17 PAGE LAYOUT
NAD 1983 UTM Zone 18 N

SUNCOR ENERGY PRODUCTS PARTNERSHIP
35197
4000 RIVERSIDE DRIVE
OTTAWA, ONTARIO

GEOTECHNICAL INVESTIGATION

**SITE LOCATION
AND SURROUNDING LAND USE**

SLR

FIGURE NO:
1

DATE: November 25, 2024

PROJECT NO: 216.030059.00003

Cadfile name: S_216-030059-00002-A1.dwg

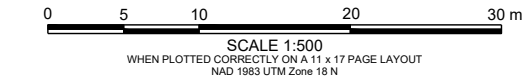


- LEGEND:**
- APPROXIMATE PROPERTY BOUNDARY
 - EASEMENT
 - SITE BOUNDARY
 - BOREHOLE
 - MONITORING WELL
 - TANK NEST MONITORING WELL
 - UTILITIES AND SYMBOLS
 - MANHOLE
 - CATCH BASIN

NOTES:
NOT A LEGAL SURVEY. DO NOT USE FOR CONSTRUCTION.

REFERENCED FROM: JD BARNES PLAN OF SURVEY WITH TOPOGRAPHIC DETAILS OF PART OF LOT 6, CONCESSION 2 (RIDEAU FRONT) REFERENCE No. 24-10-007-04,
DATES: FEBRUARY 14, 2024 AND OCTOBER 16, 2024, SERVICE ONTARIO PROPERTY INDEX MAP, OTTAWA-CARLETON (No. 4) AND SITE RECONNAISSANCE INFORMATION.

IMAGERY: ESRI, MAXAR, EARTHSTAR GEOGRAPHICS, AND THE GIS USER COMMUNITY (IMAGE DATE: 2023)



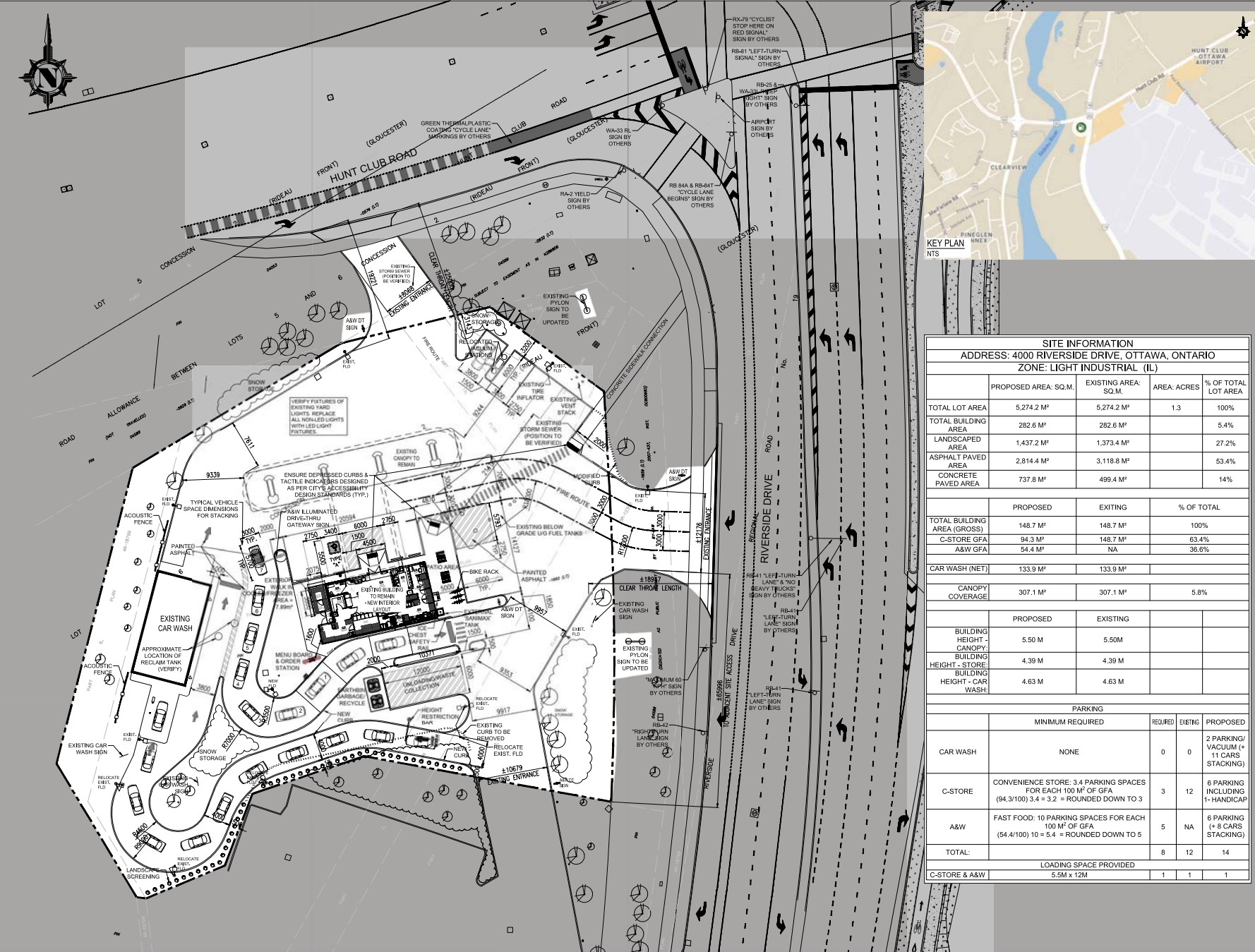
SUNCOR ENERGY PRODUCTS PARTNERSHIP
35197
4000 RIVERSIDE DRIVE
OTTAWA, ONTARIO

GEOTECHNICAL INVESTIGATION

SITE PLAN



FIGURE NO:
2



SITE INFORMATION				
ADDRESS: 4000 RIVERSIDE DRIVE, OTTAWA, ONTARIO				
ZONE: LIGHT INDUSTRIAL (IL)				
	PROPOSED AREA: SQ.M.	EXISTING AREA: SQ.M.	AREA: ACRES	% OF TOTAL LOT AREA
TOTAL LOT AREA	5,274.2 M²	5,274.2 M²	1.3	100%
TOTAL BUILDING AREA	282.6 M²	282.6 M²		5.4%
LANDSCAPED AREA	1,437.2 M²	1,373.4 M²		27.2%
ASPHALT PAVED AREA	2,814.4 M²	3,118.8 M²		53.4%
CONCRETE PAVED AREA	737.8 M²	499.4 M²		14%

	PROPOSED	EXISTING	% OF TOTAL
TOTAL BUILDING AREA (GROSS)	148.7 M²	148.7 M²	100%
C-STORE GFA	94.3 M²	148.7 M²	63.4%
A&W GFA	54.4 M²	NA	36.6%
CAR WASH (NET)	133.9 M²	133.9 M²	
CANOPY COVERAGE	307.1 M²	307.1 M²	5.8%
BUILDING HEIGHT - CANOPY	5.50 M	5.50M	
HEIGHT - BUILDING	4.39 M	4.39 M	
HEIGHT - CAR WASH	4.63 M	4.63 M	

PARKING				
	MINIMUM REQUIRED	REQUIRED	EXISTING	PROPOSED
CAR WASH	NONE	0	0	2 PARKING/ VACUUM (+ 11 CARS STACKING)
C-STORE	CONVENIENCE STORE: 3.4 PARKING SPACES FOR EACH 100 M² OF GFA (94.3/100) 3.4 = 3.2 = ROUNDED DOWN TO 3	3	12	6 PARKING INCLUDING 1-HANDICAP
A&W	FAST FOOD: 10 PARKING SPACES FOR EACH 100 M² OF GFA (54.4/100) 10 = 5.4 = ROUNDED DOWN TO 5	5	NA	6 PARKING (+ 9 CARS STACKING)
TOTAL:		8	12	14
LOADING SPACE PROVIDED				
C-STORE & A&W	5.5M x 12M	1	1	1

ISSUED		
NO.	DATE	DESCRIPTION
01	MAY 2024	ISSUE DESCRIPTION

REVISION		
1	2024-06-11	ADDED GSR TO EXIST. BUILDING, DRIVE-THRU & EARTHINGS ADDED
2	2024-06-11	RECONFIGURED CAR WASH & DRIVE-THRU STACKING LINES
3	2024-06-11	ASW COMMENTS
4	2024-06-11	ADDED MUNICIPAL ROAD SIGNS AND MARKINGS
5	2024-06-11	BA COMMENTS
6	2024-06-11	YARD LIGHTS AT CANOPY ENTRANCE STACKING TO REFLECT EXISTING

SEAL		

The contractor will check and verify dimensions and report errors and omissions to the designer and the design professional whose seal is affixed to this drawing. Do not make the drawings.

This drawing is not to be used for construction purposes until issued for construction by the design professional whose seal is affixed to this drawing and whose signature is below.

ISSUED FOR CONSTRUCTION DATE

DIMENSIONS AND CONDITIONS TO BE VERIFIED ON THE PREMISES

PAUL ARCHITECT INC.
TORONTO • VANCOUVER • OTTAWA
2040 Sheppard Avenue East, Suite 200, Ottawa, Ontario, K1T 7Y8
www.paularchitect.com
(613) 571-1980 fax (613) 571-1986



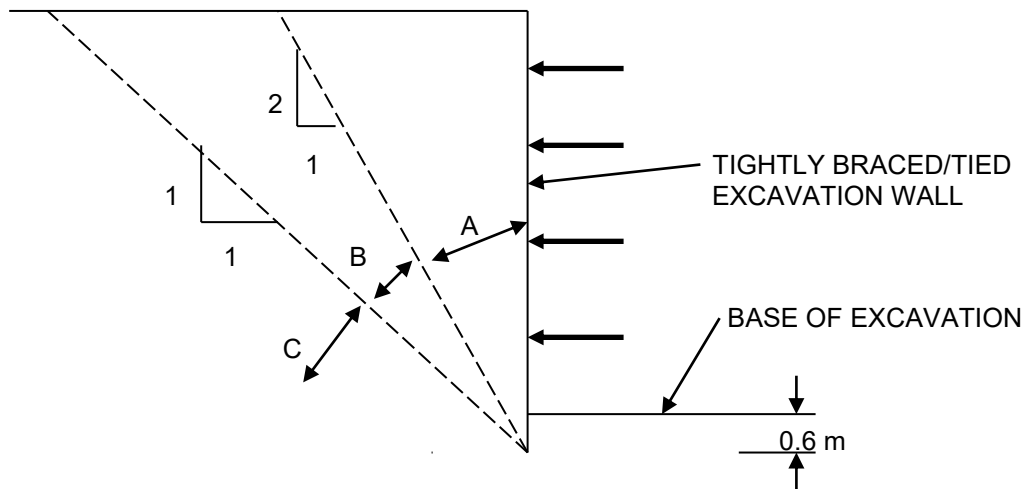
DRAWING TITLE
PROPOSED SITE LAYOUT

PROJECT
RIVERSIDE DRIVE @ HUNT CLUB DRIVE
OTTAWA, ON

DRAWN		CHECKED	
F.E.			
SCALE	DATE		
1:250	2024-07-21		
PROJECT NO.	DRAWING NO.		
35197	SP1		

Guidelines for Underpinning in Soil and Excavation Support

Existing foundations located within Zone A normally require underpinning, especially for heavy structures. For some foundations in Zone A, it may be possible to eliminate underpinning and control foundation movement by tightly braced excavation walls, such as caisson walls.



Zone A Foundations located within this zone normally require underpinning. Horizontal and vertical pressures on the excavation wall of non underpinned foundations must be considered

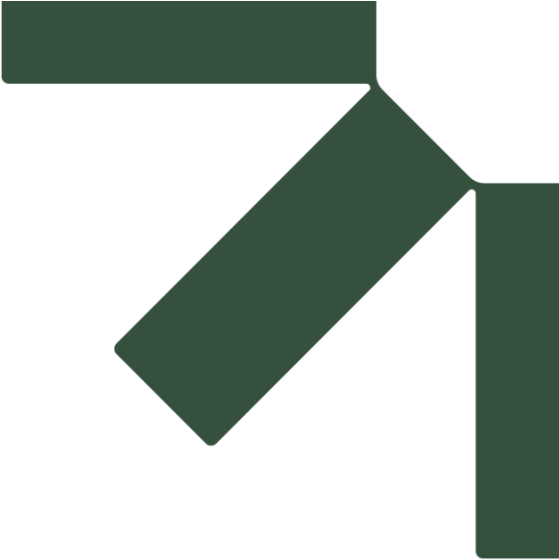
Zone B Foundations located within this zone normally do not require underpinning. Horizontal and vertical pressures on the excavation wall of non underpinned foundations must be considered

Zone C Underpinning to structures is normally founded in this zone. Lateral pressure from underpinning is not normally considered

A condition survey should be conducted prior to construction and appropriate monitoring (surface and insitu) carried out during construction to monitor any movement which may occur.

All work should be carried out in accordance with the Occupational Health and Safety Act and local regulations. Good quality workmanship and construction practices are to be employed.

(Reference: Figure 20.39 from Canadian Foundation Engineering Manual, 5th Edition)



Appendix A Borehole Records

Geotechnical Investigation for Pre-Construction Support of Future Development

Active Petro-Canada Retail Fuel Outlet No. 35197
Ottawa, Ontario

4000 Riverside Drive,

Suncor Energy Products Partnership

SLR Project No.: 216.030059.00003

December 8, 2025

SLR CONSULTING (CANADA) LTD.				CLIENT: Suncor Energy Products Partnership PROJECT: Phase II Environmental Site Investigation ADDRESS: 4000 Riverside Drive Ottawa, ON SLR JOB NO: 216.030059.00002		BOREHOLE LOG							
						BOREHOLE NO: BH24-01		UTM COORDINATES 5020225.327 N 445596.393 E					
						SURFACE ELEVATION: 102.86 m							
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	SPT COUNT	SOIL TYPE	SOIL DESCRIPTION	FIELD TEST DATA					BOREHOLE COMPLETION	WELL COMPLETION NOTES	ELEVATION (m)
						ORGANIC VAPOUR LEVEL (ppmv)							
						1	10	100	1000	10000			
1	Asphalt Fill - Gravel some coarse sand, dark brown, moist	BH24-01-0-0.5										Concrete	
		BH24-01-0.5-1.0											
		BH24-01-1.0-1.5*											
		BH24-01-1.5-2.0											
		BH24-01-2.0-2.4	22										
		BH24-01-2.4-3.0	20										
		BH24-01-3.0-3.6											
		BH24-01-3.8-4.4	21										
		BH24-01-4.6-5.2	17										
		BH24-01-5.3-5.9	20										
6	Sand coarse, trace to some gravel, dark brown, moist	BH24-01-6.1-6.7*	22										
End of borehole at 6.7 m													
* denotes soil sample taken for laboratory analysis													
													</

SLR CANADA V7.0 BOREHOLE LOGS_SUNCOR OTTAWA_4000 RIVERSIDE DR_OCTOBER 18 2024.GPJ SLR_CAN V5.2.GDT 10/31/24

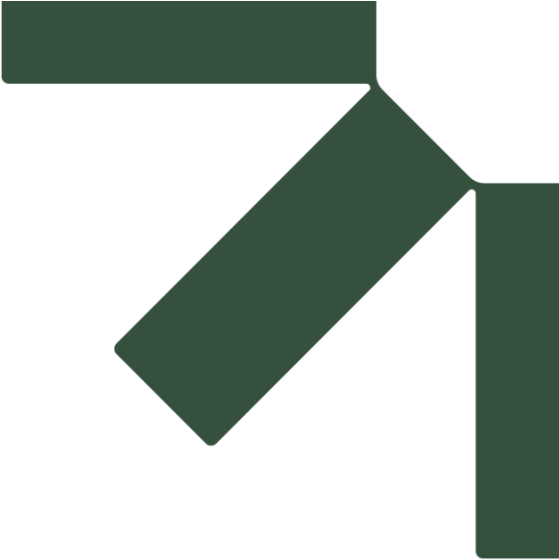




 SLR CONSULTING (CANADA) LTD.				CLIENT: Suncor Energy Products Partnership PROJECT: Phase II Environmental Site Investigation ADDRESS: 4000 Riverside Drive Ottawa, ON SLR JOB NO: 216.030059.00002		BOREHOLE LOG BOREHOLE NO: BH24-06 SURFACE ELEVATION: 102.77 m UTM COORDINATES 5020277.067 N 445592.815 E									
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	SPT COUNT	SOIL TYPE	SOIL DESCRIPTION	FIELD TEST DATA					MONITORING WELL COMPLETION	WELL COMPLETION NOTES	ELEVATION (m)		
						ORGANIC VAPOUR LEVEL (ppmv)									
						1	10	100	1000	10000					
1 <															

SLR CANADA V7.0 BOREHOLE LOGS_SUNCOR OTTAWA_4000 RIVERSIDE DR OCTOBER 18 2024.GPJ SLR CAN V5.2.GDT 10/31/24

SLR CONSULTING (CANADA) LTD.				CLIENT: Suncor Energy Products Partnership PROJECT: Phase II Environmental Site Investigation ADDRESS: 4000 Riverside Drive Ottawa, ON SLR JOB NO: 216.030059.00002		BOREHOLE LOG BOREHOLE NO: BH24-08 SURFACE ELEVATION: 103.06 m UTM COORDINATES 5020257.963 N 445597.817 E								
DEPTH (m)	SAMPLE TYPE	SAMPLE ID	SPT COUNT	SOIL TYPE	SOIL DESCRIPTION	FIELD TEST DATA					MONITORING WELL COMPLETION	WELL COMPLETION NOTES	ELEVATION (m)	
						ORGANIC VAPOUR LEVEL (ppmv)								
						1	10	100	1000	10000				
0		BH24-08-0-0.5			Asphalt								roadbox, plug, cement	103.06
1		BH24-08-0.5-1.0			Fill - Gravel									102.5
		BH24-08-1.0-1.5*			trace to some sand, brown, moist									102.0
2		BH24-08-1.5-2.0			Sand									101.5
		BH24-08-2.0-2.4	8		medium, trace to some gravel, brown, moist									101.0
		BH24-08-2.4-3.0	12		medium to coarse, trace gravel									100.5
		BH24-08-3.0-3.6	18		coarse, light brown									100.0
4		BH24-08-3.6-4.4	17		medium to coarse, brown									99.5
5		BH24-08-4.4-5.2	17		medium									99.0
6		BH24-08-5.2-5.9	17		gravel seam									98.5
7		BH24-08-5.9-6.7*	19		fine									98.0
8		BH24-08-6.7-7.5	19		fine to medium									97.5
9		BH24-08-7.5-8.2	20		fine									97.0
10		BH24-08-8.2-9.0	20		fine									96.5
11		BH24-08-9.0-9.8	24		fine									96.0
12		BH24-08-9.8-10.5	29		fine									95.5
13		BH24-08-10.5-11.3	33		fine									95.0
14		BH24-08-11.3-12.0*	32		fine									94.5
15		BH24-08-12.0-12.8	27		fine									94.0
16		BH24-08-12.8-13.6	35		fine									93.5
17		BH24-08-13.6-14.3	36		fine									93.0
18		BH24-08-14.3-15.1	38		fine									92.5
19		BH24-08-15.1-15.8	32		fine									92.0
20		BH24-08-15.8-16.6	33		fine									91.5
21		BH24-08-16.6-17.4*			fine									91.0
22					fine									90.5
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150					fine									26.5
151					fine									26.0



Appendix B Certificate of Analysis

Geotechnical Investigation for Pre-Construction Support of Future Development

Active Petro-Canada Retail Fuel Outlet No. 35197
Ottawa, Ontario

4000 Riverside Drive,

Suncor Energy Products Partnership

SLR Project No.: 216.030059.00003

December 8, 2025





Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
201-100 Stone Rd. W.
Guelph, ON
Canada N1G 5L3

Your P.O. #: OTT2947
Your Project #: OTT2947
Site#: 35197
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your C.O.C. #: C#1013277-01-01

Report Date: 2024/10/15
Report #: R8362654
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4V3527

Received: 2024/10/04, 09:00

Sample Matrix: Soil
Samples Received: 10

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	9	N/A	2024/10/10	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron (1)	7	2024/10/10	2024/10/10	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron (1)	1	2024/10/10	2024/10/11	CAM SOP-00408	R153 Ana. Prot. 2011
Hot Water Extractable Boron (1)	1	2024/10/09	2024/10/10	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum (1)	9	N/A	2024/10/10		EPA 8260C m
Conductivity (1)	9	2024/10/10	2024/10/10	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1, 2)	8	2024/10/10	2024/10/10	CAM SOP-00436	EPA 3060A/7199 m
Hexavalent Chromium in Soil by IC (1, 2)	1	2024/10/09	2024/10/09	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	1	2024/10/10	2024/10/11	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	4	2024/10/10	2024/10/12	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 3)	4	2024/10/09	2024/10/11	CAM SOP-00316	CCME CWS m
Glycols in Soil by GC-FID (1)	6	N/A	2024/10/09	CAM SOP-00322	EPA 8015 m
Acid Extractable Metals by ICPMS (1)	9	2024/10/10	2024/10/11	CAM SOP-00447	EPA 6020B m
Moisture (1)	2	N/A	2024/10/08	CAM SOP-00445	Carter 2nd ed 70.2 m
Moisture (1)	7	N/A	2024/10/09	CAM SOP-00445	Carter 2nd ed 70.2 m
PAH Compounds in Soil by GC/MS (SIM) (1)	9	2024/10/09	2024/10/10	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT (1)	9	2024/10/09	2024/10/09	CAM SOP-00413	EPA 9045 D m
Sieve, 75um (1)	2	N/A	2024/10/10	CAM SOP-00467	ASTM D1140 -17 m
Sodium Adsorption Ratio (SAR) (1)	9	N/A	2024/10/11	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs (1)	9	N/A	2024/10/09	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report.



Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
201-100 Stone Rd. W.
Guelph, ON
Canada N1G 5L3

Your P.O. #: OTT2947
Your Project #: OTT2947
Site#: 35197
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your C.O.C. #: C#1013277-01-01

Report Date: 2024/10/15
Report #: R8362654
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4V3527

Received: 2024/10/04, 09:00

Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8

(2) Soils are reported on a dry weight basis unless otherwise specified.

(3) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key



Bureau Veritas
15 Oct 2024 18:04:14

Please direct all questions regarding this Certificate of Analysis to:

Keshani Vijh, Sr. Project Manager
Email: keshani.vijh@bureauveritas.com
Phone# (613) 274-0573

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This report has been generated and distributed using a secure automated process.

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		AEZS76				AEZS77			
Sampling Date		2024/10/01 14:20				2024/10/01 15:30			
COC Number		C#1013277-01-01				C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	RDL	MDL	QC Batch	BH24-09_2-2.45M	RDL	MDL	QC Batch

Calculated Parameters									
Sodium Adsorption Ratio	N/A	3.6			9684644	1.2			9686602
Inorganics									
Conductivity	mS/cm	0.70	0.002	0.0005	9693324	0.41	0.002	0.0005	9693324
Moisture	%	6.7	1.0	0.50	9689083	5.4	1.0	0.50	9688595
Available (CaCl ₂) pH	pH	7.81			9691184	7.62			9691230
Miscellaneous Parameters									
Grain Size	%	COARSE	N/A	N/A	9692803				
Sieve - #200 (<0.075mm)	%	4	1	N/A	9692803				
Sieve - #200 (>0.075mm)	%	96	1	N/A	9692803				
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									

Bureau Veritas ID		AEZS78		AEZS79	AEZS80	AEZS81			
Sampling Date		2024/10/02 10:00		2024/10/02 10:50	2024/10/02 13:20	2024/10/02 14:40			
COC Number		C#1013277-01-01		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-01_1-1.5M	QC Batch	BH24-07_2-2.45M	BH24-06_1.5-2M	BH24-05_1-1.5M	RDL	MDL	QC Batch

Calculated Parameters									
Sodium Adsorption Ratio	N/A	1.2	9686602	46	1.3	1.3			9686986
Inorganics									
Conductivity	mS/cm	0.16	9693324	2.0	0.25	0.14	0.002	0.0005	9693324
Moisture	%	6.2	9690573	6.3	5.4	3.4	1.0	0.50	9690573
Available (CaCl ₂) pH	pH	7.42	9691230	7.78	7.63	6.99			9691230
RDL = Reportable Detection Limit QC Batch = Quality Control Batch									



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		AEZS82	AEZS83	AEZS84			
Sampling Date		2024/10/03 09:40	2024/10/03 11:30	2024/10/03 12:40			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-02_2-2.4M	BH24-04_0.5-1M	BH24-03_0.5-1M	RDL	MDL	QC Batch
Calculated Parameters							
Sodium Adsorption Ratio	N/A	2.4	1.6	0.61			9686986
Inorganics							
Conductivity	mS/cm	0.14	0.63	0.15	0.002	0.0005	9693324
Moisture	%	3.1	4.7	5.0	1.0	0.50	9690573
Available (CaCl ₂) pH	pH	7.90	7.05	6.94			9691230
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							

Bureau Veritas ID		AEZS85			
Sampling Date		2024/10/03 10:10			
COC Number		C#1013277-01-01			
	UNITS	BH24-02_0.5-1M	RDL	MDL	QC Batch
Miscellaneous Parameters					
Grain Size	%	COARSE	N/A	N/A	9692803
Sieve - #200 (<0.075mm)	%	4	1	N/A	9692803
Sieve - #200 (>0.075mm)	%	96	1	N/A	9692803
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
N/A = Not Applicable					



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

GLYCOLS BY GC-FID (SOIL)

Bureau Veritas ID		AEZS76	AEZS77	AEZS78	AEZS79			
Sampling Date		2024/10/01 14:20	2024/10/01 15:30	2024/10/02 10:00	2024/10/02 10:50			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	BH24-09_2-2.45M	BH24-01_1-1.5M	BH24-07_2-2.45M	RDL	MDL	QC Batch

Glycols								
Propylene Glycol	mg/kg	<10	<10	<10	<10	10	2	9690882
Ethylene Glycol	mg/kg	<10	<10	<10	<10	10	2	9690882
Diethylene Glycol	mg/kg	<10	<10	<10	<10	10	2	9690882
Total Glycol	mg/kg	<10	<10	<10	<10	10	2	9690882

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Bureau Veritas ID		AEZS80	AEZS81			
Sampling Date		2024/10/02 13:20	2024/10/02 14:40			
COC Number		C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-06_1.5-2M	BH24-05_1-1.5M	RDL	MDL	QC Batch

Glycols						
Propylene Glycol	mg/kg	<10	<10	10	2	9690882
Ethylene Glycol	mg/kg	<10	<10	10	2	9690882
Diethylene Glycol	mg/kg	<10	<10	10	2	9690882
Total Glycol	mg/kg	<10	<10	10	2	9690882

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		AEZS76		AEZS77	AEZS78			
Sampling Date		2024/10/01 14:20		2024/10/01 15:30	2024/10/02 10:00			
COC Number		C#1013277-01-01		C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	QC Batch	BH24-09_2-2.45M	BH24-01_1-1.5M	RDL	MDL	QC Batch
Inorganics								
Chromium (VI)	ug/g	<0.18	9690668	<0.18	<0.18	0.18	0.050	9693532
Metals								
Hot Water Ext. Boron (B)	ug/g	0.12	9693407	<0.050	0.053	0.050	0.030	9693580
Acid Extractable Antimony (Sb)	ug/g	<0.20	9693482	<0.20	<0.20	0.20	0.10	9693482
Acid Extractable Arsenic (As)	ug/g	<1.0	9693482	<1.0	<1.0	1.0	0.10	9693482
Acid Extractable Barium (Ba)	ug/g	15	9693482	7.8	6.9	0.50	0.30	9693482
Acid Extractable Beryllium (Be)	ug/g	<0.20	9693482	<0.20	<0.20	0.20	0.020	9693482
Acid Extractable Boron (B)	ug/g	<5.0	9693482	<5.0	<5.0	5.0	1.0	9693482
Acid Extractable Cadmium (Cd)	ug/g	<0.10	9693482	<0.10	<0.10	0.10	0.030	9693482
Acid Extractable Chromium (Cr)	ug/g	6.0	9693482	5.6	8.1	1.0	0.20	9693482
Acid Extractable Cobalt (Co)	ug/g	2.2	9693482	2.0	2.3	0.10	0.020	9693482
Acid Extractable Copper (Cu)	ug/g	4.1	9693482	3.2	3.7	0.50	0.20	9693482
Acid Extractable Lead (Pb)	ug/g	1.9	9693482	1.4	1.7	1.0	0.10	9693482
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9693482	<0.50	<0.50	0.50	0.10	9693482
Acid Extractable Nickel (Ni)	ug/g	3.5	9693482	2.8	3.7	0.50	0.20	9693482
Acid Extractable Selenium (Se)	ug/g	<0.50	9693482	<0.50	<0.50	0.50	0.10	9693482
Acid Extractable Silver (Ag)	ug/g	<0.20	9693482	<0.20	<0.20	0.20	0.040	9693482
Acid Extractable Thallium (Tl)	ug/g	<0.050	9693482	<0.050	<0.050	0.050	0.010	9693482
Acid Extractable Uranium (U)	ug/g	0.48	9693482	0.49	0.52	0.050	0.030	9693482
Acid Extractable Vanadium (V)	ug/g	18	9693482	18	32	5.0	0.50	9693482
Acid Extractable Zinc (Zn)	ug/g	7.4	9693482	6.3	9.1	5.0	0.50	9693482
Acid Extractable Mercury (Hg)	ug/g	<0.050	9693482	<0.050	<0.050	0.050	0.030	9693482
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		AEZS79	AEZS80	AEZS81	AEZS82			
Sampling Date		2024/10/02 10:50	2024/10/02 13:20	2024/10/02 14:40	2024/10/03 09:40			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-07_2-2.45M	BH24-06_1.5-2M	BH24-05_1-1.5M	BH24-02_2-2.4M	RDL	MDL	QC Batch

Inorganics								
Chromium (VI)	ug/g	<0.18	<0.18	<0.18	<0.18	0.18	0.050	9693532
Metals								
Hot Water Ext. Boron (B)	ug/g	0.11	0.11	<0.050	<0.050	0.050	0.030	9693580
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	0.10	9693482
Acid Extractable Arsenic (As)	ug/g	2.0	<1.0	<1.0	<1.0	1.0	0.10	9693482
Acid Extractable Barium (Ba)	ug/g	15	15	7.6	11	0.50	0.30	9693482
Acid Extractable Beryllium (Be)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	0.020	9693482
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	<5.0	5.0	1.0	9693482
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	<0.10	<0.10	0.10	0.030	9693482
Acid Extractable Chromium (Cr)	ug/g	5.9	5.9	6.7	4.4	1.0	0.20	9693482
Acid Extractable Cobalt (Co)	ug/g	3.1	2.0	2.0	1.8	0.10	0.020	9693482
Acid Extractable Copper (Cu)	ug/g	4.6	3.5	3.1	3.7	0.50	0.20	9693482
Acid Extractable Lead (Pb)	ug/g	5.2	1.6	1.4	1.2	1.0	0.10	9693482
Acid Extractable Molybdenum (Mo)	ug/g	1.4	<0.50	<0.50	<0.50	0.50	0.10	9693482
Acid Extractable Nickel (Ni)	ug/g	5.7	3.4	2.9	2.8	0.50	0.20	9693482
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	<0.50	0.50	0.10	9693482
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	<0.20	0.20	0.040	9693482
Acid Extractable Thallium (Tl)	ug/g	0.053	<0.050	<0.050	<0.050	0.050	0.010	9693482
Acid Extractable Uranium (U)	ug/g	0.45	0.45	0.43	0.35	0.050	0.030	9693482
Acid Extractable Vanadium (V)	ug/g	13	17	22	13	5.0	0.50	9693482
Acid Extractable Zinc (Zn)	ug/g	8.2	6.6	6.3	6.0	5.0	0.50	9693482
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	0.030	9693482
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		AEZS83		AEZS84			
Sampling Date		2024/10/03 11:30		2024/10/03 12:40			
COC Number		C#1013277-01-01		C#1013277-01-01			
	UNITS	BH24-04_0.5-1M	QC Batch	BH24-03_0.5-1M	RDL	MDL	QC Batch
Inorganics							
Chromium (VI)	ug/g	<0.18	9693532	<0.18	0.18	0.050	9693532
Metals							
Hot Water Ext. Boron (B)	ug/g	0.065	9691843	0.051	0.050	0.030	9693580
Acid Extractable Antimony (Sb)	ug/g	<0.20	9693482	<0.20	0.20	0.10	9694349
Acid Extractable Arsenic (As)	ug/g	<1.0	9693482	<1.0	1.0	0.10	9694349
Acid Extractable Barium (Ba)	ug/g	19	9693482	20	0.50	0.30	9694349
Acid Extractable Beryllium (Be)	ug/g	<0.20	9693482	<0.20	0.20	0.020	9694349
Acid Extractable Boron (B)	ug/g	<5.0	9693482	<5.0	5.0	1.0	9694349
Acid Extractable Cadmium (Cd)	ug/g	<0.10	9693482	<0.10	0.10	0.030	9694349
Acid Extractable Chromium (Cr)	ug/g	6.3	9693482	9.5	1.0	0.20	9694349
Acid Extractable Cobalt (Co)	ug/g	2.2	9693482	2.6	0.10	0.020	9694349
Acid Extractable Copper (Cu)	ug/g	3.8	9693482	4.5	0.50	0.20	9694349
Acid Extractable Lead (Pb)	ug/g	2.3	9693482	2.8	1.0	0.10	9694349
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9693482	<0.50	0.50	0.10	9694349
Acid Extractable Nickel (Ni)	ug/g	3.6	9693482	4.4	0.50	0.20	9694349
Acid Extractable Selenium (Se)	ug/g	<0.50	9693482	<0.50	0.50	0.10	9694349
Acid Extractable Silver (Ag)	ug/g	<0.20	9693482	<0.20	0.20	0.040	9694349
Acid Extractable Thallium (Tl)	ug/g	<0.050	9693482	<0.050	0.050	0.010	9694349
Acid Extractable Uranium (U)	ug/g	0.46	9693482	0.70	0.050	0.030	9694349
Acid Extractable Vanadium (V)	ug/g	18	9693482	35	5.0	0.50	9694349
Acid Extractable Zinc (Zn)	ug/g	8.7	9693482	9.6	5.0	0.50	9694349
Acid Extractable Mercury (Hg)	ug/g	<0.050	9693482	<0.050	0.050	0.030	9694349
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Bureau Veritas ID		AEZS76		AEZS77	AEZS78	AEZS79			
Sampling Date		2024/10/01 14:20		2024/10/01 15:30	2024/10/02 10:00	2024/10/02 10:50			
COC Number		C#1013277-01-01		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	QC Batch	BH24-09_2-2.45M	BH24-01_1-1.5M	BH24-07_2-2.45M	RDL	MDL	QC Batch

Calculated Parameters

Methylnaphthalene, 2-(1-)	ug/g	<0.0071	9686981	<0.0071	<0.0071	<0.0071	0.0071	N/A	9684642
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Polyaromatic Hydrocarbons

Acenaphthene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9691592
Acenaphthylene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Anthracene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Benzo(a)anthracene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9691592
Benzo(a)pyrene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Benzo(b,j)fluoranthene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9691592
Benzo(g,h,i)perylene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9691592
Benzo(k)fluoranthene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9691592
Chrysene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9691592
Dibenzo(a,h)anthracene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9691592
Fluoranthene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Fluorene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9691592
1-Methylnaphthalene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
2-Methylnaphthalene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Naphthalene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Phenanthrene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592
Pyrene	ug/g	<0.0050	9691592	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9691592

Surrogate Recovery (%)

D10-Anthracene	%	117	9691592	121	121	118			9691592
D14-Terphenyl (FS)	%	99	9691592	103	103	94			9691592
D8-Acenaphthylene	%	88	9691592	90	87	85			9691592

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Bureau Veritas ID		AEZS80	AEZS81	AEZS82		AEZS83			
Sampling Date		2024/10/02 13:20	2024/10/02 14:40	2024/10/03 09:40		2024/10/03 11:30			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01		C#1013277-01-01			
	UNITS	BH24-06_1.5-2M	BH24-05_1-1.5M	BH24-02_2-2.4M	QC Batch	BH24-04_0.5-1M	RDL	MDL	QC Batch

Calculated Parameters									
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	9684642	<0.0071	0.0071	N/A	9686981
Polyaromatic Hydrocarbons									
Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0020	9691592
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0020	9691592
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Benzo(b,j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0020	9691592
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0040	9691592
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0020	9691592
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0020	9691592
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0040	9691592
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	9691592	0.0056	0.0050	0.0010	9691592
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0040	9691592
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Pyrene	ug/g	<0.0050	<0.0050	<0.0050	9691592	<0.0050	0.0050	0.0010	9691592
Surrogate Recovery (%)									
D10-Anthracene	%	119	105	118	9691592	126			9691592
D14-Terphenyl (FS)	%	100	107	103	9691592	108			9691592
D8-Acenaphthylene	%	84	89	89	9691592	90			9691592

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Bureau Veritas ID		AEZS84			
Sampling Date		2024/10/03 12:40			
COC Number		C#1013277-01-01			
	UNITS	BH24-03_0.5-1M	RDL	MDL	QC Batch
Calculated Parameters					
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	0.0071	N/A	9686981
Polyaromatic Hydrocarbons					
Acenaphthene	ug/g	<0.0050	0.0050	0.0020	9691592
Acenaphthylene	ug/g	<0.0050	0.0050	0.0010	9691592
Anthracene	ug/g	<0.0050	0.0050	0.0010	9691592
Benzo(a)anthracene	ug/g	<0.0050	0.0050	0.0020	9691592
Benzo(a)pyrene	ug/g	<0.0050	0.0050	0.0010	9691592
Benzo(b/j)fluoranthene	ug/g	<0.0050	0.0050	0.0020	9691592
Benzo(g,h,i)perylene	ug/g	<0.0050	0.0050	0.0040	9691592
Benzo(k)fluoranthene	ug/g	<0.0050	0.0050	0.0020	9691592
Chrysene	ug/g	<0.0050	0.0050	0.0020	9691592
Dibenzo(a,h)anthracene	ug/g	<0.0050	0.0050	0.0040	9691592
Fluoranthene	ug/g	<0.0050	0.0050	0.0010	9691592
Fluorene	ug/g	<0.0050	0.0050	0.0010	9691592
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	0.0050	0.0040	9691592
1-Methylnaphthalene	ug/g	<0.0050	0.0050	0.0010	9691592
2-Methylnaphthalene	ug/g	<0.0050	0.0050	0.0010	9691592
Naphthalene	ug/g	<0.0050	0.0050	0.0010	9691592
Phenanthrene	ug/g	<0.0050	0.0050	0.0010	9691592
Pyrene	ug/g	<0.0050	0.0050	0.0010	9691592
Surrogate Recovery (%)					
D10-Anthracene	%	129			9691592
D14-Terphenyl (FS)	%	105			9691592
D8-Acenaphthylene	%	88			9691592
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable					



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		AEZ576	AEZ577	AEZ578			
Sampling Date		2024/10/01 14:20	2024/10/01 15:30	2024/10/02 10:00			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	BH24-09_2-2.45M	BH24-01_1-1.5M	RDL	MDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	0.050	0.010	9684689
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	0.49	0.49	9689116
Benzene	ug/g	<0.0060	<0.0060	<0.0060	0.0060	0.0060	9689116
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Bromoform	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Bromomethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Chloroform	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	0.049	0.049	9689116
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	0.030	0.030	9689116
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	0.010	0.010	9689116
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Hexane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	0.049	0.049	9689116
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	0.40	0.40	9689116
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	0.40	0.40	9689116
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Styrene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		AEZS76	AEZS77	AEZS78			
Sampling Date		2024/10/01 14:20	2024/10/01 15:30	2024/10/02 10:00			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	BH24-09_2-2.45M	BH24-01_1-1.5M	RDL	MDL	QC Batch
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Toluene	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9689116
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	0.010	0.010	9689116
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	0.040	0.040	9689116
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	0.019	0.019	9689116
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9689116
o-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9689116
Total Xylenes	ug/g	<0.020	<0.020	<0.020	0.020	0.020	9689116
F1 (C6-C10)	ug/g	<10	<10	<10	10	2.0	9689116
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	10	2.0	9689116
Surrogate Recovery (%)							
4-Bromofluorobenzene	%	89	89	89			9689116
D10-o-Xylene	%	94	93	99			9689116
D4-1,2-Dichloroethane	%	124	124	124			9689116
D8-Toluene	%	103	102	105			9689116
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		AEZS79	AEZS80	AEZS81	AEZS82			
Sampling Date		2024/10/02 10:50	2024/10/02 13:20	2024/10/02 14:40	2024/10/03 09:40			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-07_2-2.45M	BH24-06_1.5-2M	BH24-05_1-1.5M	BH24-02_2-2.4M	RDL	MDL	QC Batch

Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	<0.050	0.050	0.010	9684689
Volatile Organics								
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	<0.49	0.49	0.49	9689116
Benzene	ug/g	<0.0060	<0.0060	<0.0060	<0.0060	0.0060	0.0060	9689116
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Bromoform	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Bromomethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Chloroform	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	<0.049	0.049	0.049	9689116
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	<0.030	0.030	0.030	9689116
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Ethylbenzene	ug/g	<0.010	<0.010	<0.010	<0.010	0.010	0.010	9689116
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Hexane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	<0.049	0.049	0.049	9689116
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	<0.40	0.40	0.40	9689116
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	<0.40	0.40	0.40	9689116
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Styrene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		AEZS79	AEZS80	AEZS81	AEZS82			
Sampling Date		2024/10/02 10:50	2024/10/02 13:20	2024/10/02 14:40	2024/10/03 09:40			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-07_2-2.45M	BH24-06_1.5-2M	BH24-05_1-1.5M	BH24-02_2-2.4M	RDL	MDL	QC Batch
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9689116
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	<0.010	0.010	0.010	9689116
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9689116
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	<0.019	0.019	0.019	9689116
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9689116
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9689116
Total Xylenes	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9689116
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	2.0	9689116
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	2.0	9689116
Surrogate Recovery (%)								
4-Bromofluorobenzene	%	89	88	88	88			9689116
D10-o-Xylene	%	98	96	97	99			9689116
D4-1,2-Dichloroethane	%	129	123	125	125			9689116
D8-Toluene	%	103	106	104	104			9689116
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		AEZS83	AEZS84			
Sampling Date		2024/10/03 11:30	2024/10/03 12:40			
COC Number		C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-04_0.5-1M	BH24-03_0.5-1M	RDL	MDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	0.050	0.010	9684689
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.49	<0.49	0.49	0.49	9689116
Benzene	ug/g	<0.0060	<0.0060	0.0060	0.0060	9689116
Bromodichloromethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
Bromoform	ug/g	<0.040	<0.040	0.040	0.040	9689116
Bromomethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
Carbon Tetrachloride	ug/g	<0.040	<0.040	0.040	0.040	9689116
Chlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9689116
Chloroform	ug/g	<0.040	<0.040	0.040	0.040	9689116
Dibromochloromethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	0.040	0.040	9689116
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,1-Dichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichloroethane	ug/g	<0.049	<0.049	0.049	0.049	9689116
1,1-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9689116
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9689116
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,2-Dichloropropane	ug/g	<0.040	<0.040	0.040	0.040	9689116
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	0.030	0.030	9689116
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	0.040	0.040	9689116
Ethylbenzene	ug/g	<0.010	<0.010	0.010	0.010	9689116
Ethylene Dibromide	ug/g	<0.040	<0.040	0.040	0.040	9689116
Hexane	ug/g	<0.040	<0.040	0.040	0.040	9689116
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	0.049	0.049	9689116
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	0.40	0.40	9689116
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	0.40	0.40	9689116
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	0.040	0.040	9689116
Styrene	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



Bureau Veritas Job #: C4V3527
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SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID		AEZS83	AEZS84			
Sampling Date		2024/10/03 11:30	2024/10/03 12:40			
COC Number		C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-04_0.5-1M	BH24-03_0.5-1M	RDL	MDL	QC Batch
Tetrachloroethylene	ug/g	<0.040	<0.040	0.040	0.040	9689116
Toluene	ug/g	<0.020	<0.020	0.020	0.020	9689116
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	0.040	0.040	9689116
Trichloroethylene	ug/g	<0.010	<0.010	0.010	0.010	9689116
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	0.040	0.040	9689116
Vinyl Chloride	ug/g	<0.019	<0.019	0.019	0.019	9689116
p+m-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9689116
o-Xylene	ug/g	<0.020	<0.020	0.020	0.020	9689116
Total Xylenes	ug/g	<0.020	<0.020	0.020	0.020	9689116
F1 (C6-C10)	ug/g	<10	<10	10	2.0	9689116
F1 (C6-C10) - BTEX	ug/g	<10	<10	10	2.0	9689116
Surrogate Recovery (%)						
4-Bromofluorobenzene	%	86	87			9689116
D10-o-Xylene	%	92	100			9689116
D4-1,2-Dichloroethane	%	124	125			9689116
D8-Toluene	%	105	105			9689116
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



BUREAU
VERITAS

Bureau Veritas Job #: C4V3527

Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.

Client Project #: OTT2947

Site Location: SUNCOR 4000 RIVERSIDE DRIVE

Your P.O. #: OTT2947

Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AEZS76		AEZS77	AEZS78	AEZS79			
Sampling Date		2024/10/01 14:20		2024/10/01 15:30	2024/10/02 10:00	2024/10/02 10:50			
COC Number		C#1013277-01-01		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_1-1.5M	QC Batch	BH24-09_2-2.45M	BH24-01_1-1.5M	BH24-07_2-2.45M	RDL	MDL	QC Batch

F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	9692460	<7.0	<7.0	<7.0	7.0	5.0	9694750
F3 (C16-C34 Hydrocarbons)	ug/g	<50	9692460	<50	<50	<50	50	5.0	9694750
F4 (C34-C50 Hydrocarbons)	ug/g	<50	9692460	<50	<50	<50	50	10	9694750
Reached Baseline at C50	ug/g	Yes	9692460	Yes	Yes	Yes			9694750

Surrogate Recovery (%)

o-Terphenyl	%	101	9692460	92	89	87			9694750
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RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Bureau Veritas ID		AEZS80	AEZS81		AEZS82	AEZS83			
Sampling Date		2024/10/02 13:20	2024/10/02 14:40		2024/10/03 09:40	2024/10/03 11:30			
COC Number		C#1013277-01-01	C#1013277-01-01		C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-06_1.5-2M	BH24-05_1-1.5M	QC Batch	BH24-02_2-2.4M	BH24-04_0.5-1M	RDL	MDL	QC Batch

F2-F4 Hydrocarbons									
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	9694750	<7.0	<7.0	7.0	5.0	9692460
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	9694750	<50	<50	50	5.0	9692460
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	9694750	<50	<50	50	10	9692460
Reached Baseline at C50	ug/g	Yes	Yes	9694750	Yes	Yes			9692460

Surrogate Recovery (%)

o-Terphenyl	%	85	91	9694750	94	97			9692460
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RDL = Reportable Detection Limit

QC Batch = Quality Control Batch



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SLR Consulting (Canada) Ltd.
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Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AEZS84			
Sampling Date		2024/10/03 12:40			
COC Number		C#1013277-01-01			
	UNITS	BH24-03_0.5-1M	RDL	MDL	QC Batch
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	7.0	5.0	9692460
F3 (C16-C34 Hydrocarbons)	ug/g	<50	50	5.0	9692460
F4 (C34-C50 Hydrocarbons)	ug/g	<50	50	10	9692460
Reached Baseline at C50	ug/g	Yes			9692460
Surrogate Recovery (%)					
o-Terphenyl	%	94			9692460
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



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GENERAL COMMENTS

Results relate only to the items tested.



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SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
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Sampler Initials: MS

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
	9688595	MUC	RPD	Moisture	2024/10/08	1.5		%	20
	9689083	MUC	RPD	Moisture	2024/10/08	1.5		%	20
	9689116	DR1	Matrix Spike	4-Bromofluorobenzene	2024/10/09		91	%	60 - 140
				D10-o-Xylene	2024/10/09		105	%	60 - 130
				D4-1,2-Dichloroethane	2024/10/09		125	%	60 - 140
				D8-Toluene	2024/10/09		104	%	60 - 140
				Acetone (2-Propanone)	2024/10/09		144 (1)	%	60 - 140
				Benzene	2024/10/09		100	%	60 - 140
				Bromodichloromethane	2024/10/09		105	%	60 - 140
				Bromoform	2024/10/09		106	%	60 - 140
				Bromomethane	2024/10/09		84	%	60 - 140
				Carbon Tetrachloride	2024/10/09		100	%	60 - 140
				Chlorobenzene	2024/10/09		96	%	60 - 140
				Chloroform	2024/10/09		104	%	60 - 140
				Dibromochloromethane	2024/10/09		112	%	60 - 140
				1,2-Dichlorobenzene	2024/10/09		103	%	60 - 140
				1,3-Dichlorobenzene	2024/10/09		101	%	60 - 140
				1,4-Dichlorobenzene	2024/10/09		102	%	60 - 140
				Dichlorodifluoromethane (FREON 12)	2024/10/09		79	%	60 - 140
				1,1-Dichloroethane	2024/10/09		101	%	60 - 140
				1,2-Dichloroethane	2024/10/09		124	%	60 - 140
				1,1-Dichloroethylene	2024/10/09		103	%	60 - 140
				cis-1,2-Dichloroethylene	2024/10/09		102	%	60 - 140
				trans-1,2-Dichloroethylene	2024/10/09		98	%	60 - 140
				1,2-Dichloropropane	2024/10/09		109	%	60 - 140
				cis-1,3-Dichloropropene	2024/10/09		108	%	60 - 140
				trans-1,3-Dichloropropene	2024/10/09		134	%	60 - 140
				Ethylbenzene	2024/10/09		96	%	60 - 140
				Ethylene Dibromide	2024/10/09		110	%	60 - 140
				Hexane	2024/10/09		106	%	60 - 140
				Methylene Chloride(Dichloromethane)	2024/10/09		99	%	60 - 140
				Methyl Ethyl Ketone (2-Butanone)	2024/10/09		146 (1)	%	60 - 140
				Methyl Isobutyl Ketone	2024/10/09		128	%	60 - 140
				Methyl t-butyl ether (MTBE)	2024/10/09		108	%	60 - 140
				Styrene	2024/10/09		98	%	60 - 140
				1,1,1,2-Tetrachloroethane	2024/10/09		105	%	60 - 140
				1,1,2,2-Tetrachloroethane	2024/10/09		111	%	60 - 140
				Tetrachloroethylene	2024/10/09		90	%	60 - 140
				Toluene	2024/10/09		99	%	60 - 140
				1,1,1-Trichloroethane	2024/10/09		93	%	60 - 140
				1,1,2-Trichloroethane	2024/10/09		128	%	60 - 140
				Trichloroethylene	2024/10/09		92	%	60 - 140
				Trichlorofluoromethane (FREON 11)	2024/10/09		94	%	60 - 140
				Vinyl Chloride	2024/10/09		91	%	60 - 140
				p+m-Xylene	2024/10/09		94	%	60 - 140
				o-Xylene	2024/10/09		106	%	60 - 140
				F1 (C6-C10)	2024/10/09		85	%	60 - 140
	9689116	DR1	Spiked Blank	4-Bromofluorobenzene	2024/10/09		94	%	60 - 140
				D10-o-Xylene	2024/10/09		93	%	60 - 130
				D4-1,2-Dichloroethane	2024/10/09		123	%	60 - 140
				D8-Toluene	2024/10/09		103	%	60 - 140
				Acetone (2-Propanone)	2024/10/09		129	%	60 - 140



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SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
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Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Benzene	2024/10/09		96	%	60 - 130
				Bromodichloromethane	2024/10/09		102	%	60 - 130
				Bromoform	2024/10/09		109	%	60 - 130
				Bromomethane	2024/10/09		79	%	60 - 140
				Carbon Tetrachloride	2024/10/09		97	%	60 - 130
				Chlorobenzene	2024/10/09		92	%	60 - 130
				Chloroform	2024/10/09		99	%	60 - 130
				Dibromochloromethane	2024/10/09		111	%	60 - 130
				1,2-Dichlorobenzene	2024/10/09		101	%	60 - 130
				1,3-Dichlorobenzene	2024/10/09		104	%	60 - 130
				1,4-Dichlorobenzene	2024/10/09		97	%	60 - 130
				Dichlorodifluoromethane (FREON 12)	2024/10/09		77	%	60 - 140
				1,1-Dichloroethane	2024/10/09		96	%	60 - 130
				1,2-Dichloroethane	2024/10/09		119	%	60 - 130
				1,1-Dichloroethylene	2024/10/09		98	%	60 - 130
				cis-1,2-Dichloroethylene	2024/10/09		99	%	60 - 130
				trans-1,2-Dichloroethylene	2024/10/09		94	%	60 - 130
				1,2-Dichloropropane	2024/10/09		105	%	60 - 130
				cis-1,3-Dichloropropene	2024/10/09		103	%	60 - 130
				trans-1,3-Dichloropropene	2024/10/09		127	%	60 - 130
				Ethylbenzene	2024/10/09		95	%	60 - 130
				Ethylene Dibromide	2024/10/09		107	%	60 - 130
				Hexane	2024/10/09		101	%	60 - 130
				Methylene Chloride(Dichloromethane)	2024/10/09		95	%	60 - 130
				Methyl Ethyl Ketone (2-Butanone)	2024/10/09		137	%	60 - 140
				Methyl Isobutyl Ketone	2024/10/09		125	%	60 - 130
				Methyl t-butyl ether (MTBE)	2024/10/09		103	%	60 - 130
				Styrene	2024/10/09		95	%	60 - 130
				1,1,1,2-Tetrachloroethane	2024/10/09		105	%	60 - 130
				1,1,2,2-Tetrachloroethane	2024/10/09		109	%	60 - 130
				Tetrachloroethylene	2024/10/09		86	%	60 - 130
				Toluene	2024/10/09		94	%	60 - 130
				1,1,1-Trichloroethane	2024/10/09		90	%	60 - 130
				1,1,2-Trichloroethane	2024/10/09		123	%	60 - 130
				Trichloroethylene	2024/10/09		89	%	60 - 130
				Trichlorofluoromethane (FREON 11)	2024/10/09		89	%	60 - 130
				Vinyl Chloride	2024/10/09		88	%	60 - 130
				p+m-Xylene	2024/10/09		93	%	60 - 130
				o-Xylene	2024/10/09		103	%	60 - 130
				F1 (C6-C10)	2024/10/09		84	%	80 - 120
9689116	DR1	Method Blank		4-Bromofluorobenzene	2024/10/09		92	%	60 - 140
				D10-o-Xylene	2024/10/09		95	%	60 - 130
				D4-1,2-Dichloroethane	2024/10/09		116	%	60 - 140
				D8-Toluene	2024/10/09		103	%	60 - 140
				Acetone (2-Propanone)	2024/10/09	<0.49		ug/g	
				Benzene	2024/10/09	<0.0060		ug/g	
				Bromodichloromethane	2024/10/09	<0.040		ug/g	
				Bromoform	2024/10/09	<0.040		ug/g	
				Bromomethane	2024/10/09	<0.040		ug/g	
				Carbon Tetrachloride	2024/10/09	<0.040		ug/g	
				Chlorobenzene	2024/10/09	<0.040		ug/g	
				Chloroform	2024/10/09	<0.040		ug/g	



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SLR Consulting (Canada) Ltd.
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Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Dibromochloromethane	2024/10/09	<0.040		ug/g	
				1,2-Dichlorobenzene	2024/10/09	<0.040		ug/g	
				1,3-Dichlorobenzene	2024/10/09	<0.040		ug/g	
				1,4-Dichlorobenzene	2024/10/09	<0.040		ug/g	
				Dichlorodifluoromethane (FREON 12)	2024/10/09	<0.040		ug/g	
				1,1-Dichloroethane	2024/10/09	<0.040		ug/g	
				1,2-Dichloroethane	2024/10/09	<0.049		ug/g	
				1,1-Dichloroethylene	2024/10/09	<0.040		ug/g	
				cis-1,2-Dichloroethylene	2024/10/09	<0.040		ug/g	
				trans-1,2-Dichloroethylene	2024/10/09	<0.040		ug/g	
				1,2-Dichloropropane	2024/10/09	<0.040		ug/g	
				cis-1,3-Dichloropropene	2024/10/09	<0.030		ug/g	
				trans-1,3-Dichloropropene	2024/10/09	<0.040		ug/g	
				Ethylbenzene	2024/10/09	<0.010		ug/g	
				Ethylene Dibromide	2024/10/09	<0.040		ug/g	
				Hexane	2024/10/09	<0.040		ug/g	
				Methylene Chloride(Dichloromethane)	2024/10/09	<0.049		ug/g	
				Methyl Ethyl Ketone (2-Butanone)	2024/10/09	<0.40		ug/g	
				Methyl Isobutyl Ketone	2024/10/09	<0.40		ug/g	
				Methyl t-butyl ether (MTBE)	2024/10/09	<0.040		ug/g	
				Styrene	2024/10/09	<0.040		ug/g	
				1,1,1,2-Tetrachloroethane	2024/10/09	<0.040		ug/g	
				1,1,2,2-Tetrachloroethane	2024/10/09	<0.040		ug/g	
				Tetrachloroethylene	2024/10/09	<0.040		ug/g	
				Toluene	2024/10/09	<0.020		ug/g	
				1,1,1-Trichloroethane	2024/10/09	<0.040		ug/g	
				1,1,2-Trichloroethane	2024/10/09	<0.040		ug/g	
				Trichloroethylene	2024/10/09	<0.010		ug/g	
				Trichlorofluoromethane (FREON 11)	2024/10/09	<0.040		ug/g	
				Vinyl Chloride	2024/10/09	<0.019		ug/g	
				p+m-Xylene	2024/10/09	<0.020		ug/g	
				o-Xylene	2024/10/09	<0.020		ug/g	
				Total Xylenes	2024/10/09	<0.020		ug/g	
				F1 (C6-C10)	2024/10/09	<10		ug/g	
				F1 (C6-C10) - BTEX	2024/10/09	<10		ug/g	
9689116	DR1	RPD		Acetone (2-Propanone)	2024/10/09	NC		%	50
				Benzene	2024/10/09	NC		%	50
				Bromodichloromethane	2024/10/09	NC		%	50
				Bromoform	2024/10/09	NC		%	50
				Bromomethane	2024/10/09	NC		%	50
				Carbon Tetrachloride	2024/10/09	NC		%	50
				Chlorobenzene	2024/10/09	NC		%	50
				Chloroform	2024/10/09	NC		%	50
				Dibromochloromethane	2024/10/09	NC		%	50
				1,2-Dichlorobenzene	2024/10/09	NC		%	50
				1,3-Dichlorobenzene	2024/10/09	NC		%	50
				1,4-Dichlorobenzene	2024/10/09	NC		%	50
				Dichlorodifluoromethane (FREON 12)	2024/10/09	NC		%	50
				1,1-Dichloroethane	2024/10/09	NC		%	50
				1,2-Dichloroethane	2024/10/09	NC		%	50
				1,1-Dichloroethylene	2024/10/09	NC		%	50
				cis-1,2-Dichloroethylene	2024/10/09	NC		%	50



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Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			trans-1,2-Dichloroethylene	2024/10/09	NC		%	50
			1,2-Dichloropropane	2024/10/09	NC		%	50
			cis-1,3-Dichloropropene	2024/10/09	NC		%	50
			trans-1,3-Dichloropropene	2024/10/09	NC		%	50
			Ethylbenzene	2024/10/09	NC		%	50
			Ethylene Dibromide	2024/10/09	NC		%	50
			Hexane	2024/10/09	NC		%	50
			Methylene Chloride(Dichloromethane)	2024/10/09	NC		%	50
			Methyl Ethyl Ketone (2-Butanone)	2024/10/09	NC		%	50
			Methyl Isobutyl Ketone	2024/10/09	NC		%	50
			Methyl t-butyl ether (MTBE)	2024/10/09	NC		%	50
			Styrene	2024/10/09	NC		%	50
			1,1,1,2-Tetrachloroethane	2024/10/09	NC		%	50
			1,1,2,2-Tetrachloroethane	2024/10/09	NC		%	50
			Tetrachloroethylene	2024/10/09	NC		%	50
			Toluene	2024/10/09	NC		%	50
			1,1,1-Trichloroethane	2024/10/09	NC		%	50
			1,1,2-Trichloroethane	2024/10/09	NC		%	50
			Trichloroethylene	2024/10/09	NC		%	50
			Trichlorofluoromethane (FREON 11)	2024/10/09	NC		%	50
			Vinyl Chloride	2024/10/09	NC		%	50
			p+m-Xylene	2024/10/09	NC		%	50
			o-Xylene	2024/10/09	NC		%	50
			Total Xylenes	2024/10/09	NC		%	50
			F1 (C6-C10)	2024/10/09	NC		%	30
			F1 (C6-C10) - BTEX	2024/10/09	NC		%	30
9690573	JTS	RPD	Moisture	2024/10/09	2.9		%	20
9690668	SB5	Matrix Spike	Chromium (VI)	2024/10/09		86	%	70 - 130
9690668	SB5	Spiked Blank	Chromium (VI)	2024/10/09		90	%	80 - 120
9690668	SB5	Method Blank	Chromium (VI)	2024/10/09	<0.18		ug/g	
9690668	SB5	RPD	Chromium (VI)	2024/10/09	NC		%	35
9690882	AGA	Matrix Spike [AEZS76-02]	Propylene Glycol	2024/10/10		105	%	60 - 140
			Ethylene Glycol	2024/10/10		103	%	60 - 140
			Diethylene Glycol	2024/10/10		99	%	60 - 140
9690882	AGA	Spiked Blank	Propylene Glycol	2024/10/09		107	%	60 - 140
			Ethylene Glycol	2024/10/09		107	%	60 - 140
			Diethylene Glycol	2024/10/09		108	%	60 - 140
9690882	AGA	Method Blank	Propylene Glycol	2024/10/09	<10		mg/kg	
			Ethylene Glycol	2024/10/09	<10		mg/kg	
			Diethylene Glycol	2024/10/09	<10		mg/kg	
			Total Glycol	2024/10/09	<10		mg/kg	
9690882	AGA	RPD [AEZS76-02]	Propylene Glycol	2024/10/09	NC		%	50
			Ethylene Glycol	2024/10/09	NC		%	50
			Diethylene Glycol	2024/10/09	NC		%	50
			Total Glycol	2024/10/09	NC		%	50
9691184	KIT	Spiked Blank	Available (CaCl2) pH	2024/10/09		100	%	97 - 103
9691184	KIT	RPD	Available (CaCl2) pH	2024/10/09	0.24		%	N/A
9691230	KIT	Spiked Blank	Available (CaCl2) pH	2024/10/09		100	%	97 - 103
9691230	KIT	RPD	Available (CaCl2) pH	2024/10/09	0.037		%	N/A
9691592	RAJ	Matrix Spike	D10-Anthracene	2024/10/10		106	%	50 - 130
			D14-Terphenyl (FS)	2024/10/10		100	%	50 - 130
			D8-Acenaphthylene	2024/10/10		93	%	50 - 130



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9691592	RAJ	Spiked Blank	Acenaphthene	2024/10/10		96	%	50 - 130
			Acenaphthylene	2024/10/10		87	%	50 - 130
			Anthracene	2024/10/10		103	%	50 - 130
			Benzo(a)anthracene	2024/10/10		94	%	50 - 130
			Benzo(a)pyrene	2024/10/10		96	%	50 - 130
			Benzo(b/j)fluoranthene	2024/10/10		95	%	50 - 130
			Benzo(g,h,i)perylene	2024/10/10		101	%	50 - 130
			Benzo(k)fluoranthene	2024/10/10		93	%	50 - 130
			Chrysene	2024/10/10		85	%	50 - 130
			Dibenzo(a,h)anthracene	2024/10/10		118	%	50 - 130
			Fluoranthene	2024/10/10		97	%	50 - 130
			Fluorene	2024/10/10		94	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2024/10/10		96	%	50 - 130
			1-Methylnaphthalene	2024/10/10		92	%	50 - 130
			2-Methylnaphthalene	2024/10/10		86	%	50 - 130
			Naphthalene	2024/10/10		85	%	50 - 130
			Phenanthrene	2024/10/10		87	%	50 - 130
			Pyrene	2024/10/10		102	%	50 - 130
			D10-Anthracene	2024/10/10		110	%	50 - 130
			D14-Terphenyl (FS)	2024/10/10		98	%	50 - 130
			D8-Acenaphthylene	2024/10/10		92	%	50 - 130
			Acenaphthene	2024/10/10		91	%	50 - 130
			Acenaphthylene	2024/10/10		84	%	50 - 130
			Anthracene	2024/10/10		97	%	50 - 130
			Benzo(a)anthracene	2024/10/10		90	%	50 - 130
			Benzo(a)pyrene	2024/10/10		90	%	50 - 130
			Benzo(b/j)fluoranthene	2024/10/10		94	%	50 - 130
			Benzo(g,h,i)perylene	2024/10/10		100	%	50 - 130
			Benzo(k)fluoranthene	2024/10/10		94	%	50 - 130
			Chrysene	2024/10/10		83	%	50 - 130
			Dibenzo(a,h)anthracene	2024/10/10		103	%	50 - 130
			Fluoranthene	2024/10/10		94	%	50 - 130
			Fluorene	2024/10/10		91	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2024/10/10		93	%	50 - 130
			1-Methylnaphthalene	2024/10/10		91	%	50 - 130
			2-Methylnaphthalene	2024/10/10		86	%	50 - 130
			Naphthalene	2024/10/10		87	%	50 - 130
			Phenanthrene	2024/10/10		91	%	50 - 130
			Pyrene	2024/10/10		99	%	50 - 130
9691592	RAJ	Method Blank	D10-Anthracene	2024/10/10		124	%	50 - 130
			D14-Terphenyl (FS)	2024/10/10		102	%	50 - 130
			D8-Acenaphthylene	2024/10/10		91	%	50 - 130
			Acenaphthene	2024/10/10	<0.0050		ug/g	
			Acenaphthylene	2024/10/10	<0.0050		ug/g	
			Anthracene	2024/10/10	<0.0050		ug/g	
			Benzo(a)anthracene	2024/10/10	<0.0050		ug/g	
			Benzo(a)pyrene	2024/10/10	<0.0050		ug/g	
			Benzo(b/j)fluoranthene	2024/10/10	<0.0050		ug/g	
			Benzo(g,h,i)perylene	2024/10/10	<0.0050		ug/g	
			Benzo(k)fluoranthene	2024/10/10	<0.0050		ug/g	
			Chrysene	2024/10/10	<0.0050		ug/g	
			Dibenzo(a,h)anthracene	2024/10/10	<0.0050		ug/g	



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9691592	RAJ	RPD	Fluoranthene	2024/10/10	<0.0050		ug/g	
			Fluorene	2024/10/10	<0.0050		ug/g	
			Indeno(1,2,3-cd)pyrene	2024/10/10	<0.0050		ug/g	
			1-Methylnaphthalene	2024/10/10	<0.0050		ug/g	
			2-Methylnaphthalene	2024/10/10	<0.0050		ug/g	
			Naphthalene	2024/10/10	<0.0050		ug/g	
			Phenanthrene	2024/10/10	<0.0050		ug/g	
			Pyrene	2024/10/10	<0.0050		ug/g	
			Acenaphthene	2024/10/10	NC		%	40
			Acenaphthylene	2024/10/10	NC		%	40
			Anthracene	2024/10/10	NC		%	40
			Benzo(a)anthracene	2024/10/10	NC		%	40
			Benzo(a)pyrene	2024/10/10	NC		%	40
			Benzo(b/j)fluoranthene	2024/10/10	NC		%	40
			Benzo(g,h,i)perylene	2024/10/10	NC		%	40
			Benzo(k)fluoranthene	2024/10/10	NC		%	40
			Chrysene	2024/10/10	NC		%	40
			Dibenzo(a,h)anthracene	2024/10/10	NC		%	40
			Fluoranthene	2024/10/10	NC		%	40
			Fluorene	2024/10/10	NC		%	40
			Indeno(1,2,3-cd)pyrene	2024/10/10	NC		%	40
			1-Methylnaphthalene	2024/10/10	NC		%	40
			2-Methylnaphthalene	2024/10/10	NC		%	40
			Naphthalene	2024/10/10	NC		%	40
			Phenanthrene	2024/10/10	NC		%	40
			Pyrene	2024/10/10	NC		%	40
9691843	MEN	Matrix Spike	Hot Water Ext. Boron (B)	2024/10/10		98	%	75 - 125
9691843	MEN	Spiked Blank	Hot Water Ext. Boron (B)	2024/10/10		93	%	75 - 125
9691843	MEN	Method Blank	Hot Water Ext. Boron (B)	2024/10/10	<0.050		ug/g	
9691843	MEN	RPD	Hot Water Ext. Boron (B)	2024/10/10	15		%	40
9692460	MSZ	Matrix Spike	o-Terphenyl	2024/10/11		99	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/11		105	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2024/10/11		102	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2024/10/11		99	%	60 - 140
		Spiked Blank	o-Terphenyl	2024/10/11		94	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/11		99	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2024/10/11		96	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2024/10/11		92	%	80 - 120
9692460	MSZ	Method Blank	o-Terphenyl	2024/10/11		97	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/11	<7.0		ug/g	
			F3 (C16-C34 Hydrocarbons)	2024/10/11	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2024/10/11	<50		ug/g	
		RPD	F2 (C10-C16 Hydrocarbons)	2024/10/11	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2024/10/11	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2024/10/11	NC		%	30
9692803	FGA	QC Standard	Sieve - #200 (<0.075mm)	2024/10/10		56	%	53 - 58
			Sieve - #200 (>0.075mm)	2024/10/10		44	%	42 - 47
9692803	FGA	RPD	Sieve - #200 (<0.075mm)	2024/10/10	1.6		%	20
			Sieve - #200 (>0.075mm)	2024/10/10	4.3		%	20
9693324	GTK	Spiked Blank	Conductivity	2024/10/10		103	%	90 - 110
9693324	GTK	Method Blank	Conductivity	2024/10/10	<0.002		mS/cm	
9693324	GTK	RPD	Conductivity	2024/10/10	0.77		%	10



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	9693407	TLG	Matrix Spike	Hot Water Ext. Boron (B)	2024/10/11		100	%	75 - 125
	9693407	TLG	Spiked Blank	Hot Water Ext. Boron (B)	2024/10/11		99	%	75 - 125
	9693407	TLG	Method Blank	Hot Water Ext. Boron (B)	2024/10/11	<0.050		ug/g	
	9693407	TLG	RPD	Hot Water Ext. Boron (B)	2024/10/11	6.5		%	40
	9693482	JWK	Matrix Spike	Acid Extractable Antimony (Sb)	2024/10/11		96	%	75 - 125
				Acid Extractable Arsenic (As)	2024/10/11		96	%	75 - 125
				Acid Extractable Barium (Ba)	2024/10/11		NC	%	75 - 125
				Acid Extractable Beryllium (Be)	2024/10/11		99	%	75 - 125
				Acid Extractable Boron (B)	2024/10/11		96	%	75 - 125
				Acid Extractable Cadmium (Cd)	2024/10/11		98	%	75 - 125
				Acid Extractable Chromium (Cr)	2024/10/11		91	%	75 - 125
				Acid Extractable Cobalt (Co)	2024/10/11		93	%	75 - 125
				Acid Extractable Copper (Cu)	2024/10/11		88	%	75 - 125
				Acid Extractable Lead (Pb)	2024/10/11		96	%	75 - 125
				Acid Extractable Molybdenum (Mo)	2024/10/11		91	%	75 - 125
				Acid Extractable Nickel (Ni)	2024/10/11		97	%	75 - 125
				Acid Extractable Selenium (Se)	2024/10/11		97	%	75 - 125
				Acid Extractable Silver (Ag)	2024/10/11		94	%	75 - 125
				Acid Extractable Thallium (Tl)	2024/10/11		95	%	75 - 125
				Acid Extractable Uranium (U)	2024/10/11		99	%	75 - 125
				Acid Extractable Vanadium (V)	2024/10/11		NC	%	75 - 125
				Acid Extractable Zinc (Zn)	2024/10/11		NC	%	75 - 125
				Acid Extractable Mercury (Hg)	2024/10/11		97	%	75 - 125
	9693482	JWK	Spiked Blank	Acid Extractable Antimony (Sb)	2024/10/11		95	%	80 - 120
				Acid Extractable Arsenic (As)	2024/10/11		95	%	80 - 120
				Acid Extractable Barium (Ba)	2024/10/11		98	%	80 - 120
				Acid Extractable Beryllium (Be)	2024/10/11		93	%	80 - 120
				Acid Extractable Boron (B)	2024/10/11		95	%	80 - 120
				Acid Extractable Cadmium (Cd)	2024/10/11		93	%	80 - 120
				Acid Extractable Chromium (Cr)	2024/10/11		92	%	80 - 120
				Acid Extractable Cobalt (Co)	2024/10/11		91	%	80 - 120
				Acid Extractable Copper (Cu)	2024/10/11		93	%	80 - 120
				Acid Extractable Lead (Pb)	2024/10/11		91	%	80 - 120
				Acid Extractable Molybdenum (Mo)	2024/10/11		85	%	80 - 120
				Acid Extractable Nickel (Ni)	2024/10/11		95	%	80 - 120
				Acid Extractable Selenium (Se)	2024/10/11		95	%	80 - 120
				Acid Extractable Silver (Ag)	2024/10/11		88	%	80 - 120
				Acid Extractable Thallium (Tl)	2024/10/11		91	%	80 - 120
				Acid Extractable Uranium (U)	2024/10/11		93	%	80 - 120
				Acid Extractable Vanadium (V)	2024/10/11		92	%	80 - 120
				Acid Extractable Zinc (Zn)	2024/10/11		100	%	80 - 120
				Acid Extractable Mercury (Hg)	2024/10/11		92	%	80 - 120
	9693482	JWK	Method Blank	Acid Extractable Antimony (Sb)	2024/10/11	<0.20		ug/g	
				Acid Extractable Arsenic (As)	2024/10/11	<1.0		ug/g	
				Acid Extractable Barium (Ba)	2024/10/11	<0.50		ug/g	
				Acid Extractable Beryllium (Be)	2024/10/11	<0.20		ug/g	
				Acid Extractable Boron (B)	2024/10/11	<5.0		ug/g	
				Acid Extractable Cadmium (Cd)	2024/10/11	<0.10		ug/g	
				Acid Extractable Chromium (Cr)	2024/10/11	<1.0		ug/g	
				Acid Extractable Cobalt (Co)	2024/10/11	<0.10		ug/g	
				Acid Extractable Copper (Cu)	2024/10/11	<0.50		ug/g	
				Acid Extractable Lead (Pb)	2024/10/11	<1.0		ug/g	



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9693482	JWK	RPD		Acid Extractable Molybdenum (Mo)	2024/10/11	<0.50		ug/g	
				Acid Extractable Nickel (Ni)	2024/10/11	<0.50		ug/g	
				Acid Extractable Selenium (Se)	2024/10/11	<0.50		ug/g	
				Acid Extractable Silver (Ag)	2024/10/11	<0.20		ug/g	
				Acid Extractable Thallium (Tl)	2024/10/11	<0.050		ug/g	
				Acid Extractable Uranium (U)	2024/10/11	<0.050		ug/g	
				Acid Extractable Vanadium (V)	2024/10/11	<5.0		ug/g	
				Acid Extractable Zinc (Zn)	2024/10/11	<5.0		ug/g	
				Acid Extractable Mercury (Hg)	2024/10/11	<0.050		ug/g	
				Acid Extractable Antimony (Sb)	2024/10/11	NC		%	30
				Acid Extractable Arsenic (As)	2024/10/11	5.4		%	30
				Acid Extractable Barium (Ba)	2024/10/11	0.90		%	30
				Acid Extractable Beryllium (Be)	2024/10/11	NC		%	30
				Acid Extractable Boron (B)	2024/10/11	NC		%	30
				Acid Extractable Cadmium (Cd)	2024/10/11	NC		%	30
				Acid Extractable Chromium (Cr)	2024/10/11	0.19		%	30
				Acid Extractable Cobalt (Co)	2024/10/11	0.13		%	30
				Acid Extractable Copper (Cu)	2024/10/11	1.0		%	30
				Acid Extractable Lead (Pb)	2024/10/11	12		%	30
				Acid Extractable Molybdenum (Mo)	2024/10/11	NC		%	30
				Acid Extractable Nickel (Ni)	2024/10/11	2.2		%	30
				Acid Extractable Selenium (Se)	2024/10/11	NC		%	30
				Acid Extractable Silver (Ag)	2024/10/11	NC		%	30
				Acid Extractable Thallium (Tl)	2024/10/11	0.080		%	30
				Acid Extractable Uranium (U)	2024/10/11	1.8		%	30
				Acid Extractable Vanadium (V)	2024/10/11	2.8		%	30
				Acid Extractable Zinc (Zn)	2024/10/11	0.00079		%	30
				Acid Extractable Mercury (Hg)	2024/10/11	NC		%	30
9693532	SB5	Matrix Spike		Chromium (VI)	2024/10/10		92	%	70 - 130
9693532	SB5	Spiked Blank		Chromium (VI)	2024/10/10		94	%	80 - 120
9693532	SB5	Method Blank		Chromium (VI)	2024/10/10	<0.18		ug/g	
9693532	SB5	RPD		Chromium (VI)	2024/10/10	NC		%	35
9693580	SUK	Matrix Spike		Hot Water Ext. Boron (B)	2024/10/10		100	%	75 - 125
9693580	SUK	Spiked Blank		Hot Water Ext. Boron (B)	2024/10/10		96	%	75 - 125
9693580	SUK	Method Blank		Hot Water Ext. Boron (B)	2024/10/10	<0.050		ug/g	
9693580	SUK	RPD		Hot Water Ext. Boron (B)	2024/10/10	14		%	40
9694349	JWK	Matrix Spike		Acid Extractable Antimony (Sb)	2024/10/12		98	%	75 - 125
				Acid Extractable Arsenic (As)	2024/10/12		98	%	75 - 125
				Acid Extractable Barium (Ba)	2024/10/12		NC	%	75 - 125
				Acid Extractable Beryllium (Be)	2024/10/12		101	%	75 - 125
				Acid Extractable Boron (B)	2024/10/12		90	%	75 - 125
				Acid Extractable Cadmium (Cd)	2024/10/12		101	%	75 - 125
				Acid Extractable Chromium (Cr)	2024/10/12		99	%	75 - 125
				Acid Extractable Cobalt (Co)	2024/10/12		96	%	75 - 125
				Acid Extractable Copper (Cu)	2024/10/12		99	%	75 - 125
				Acid Extractable Lead (Pb)	2024/10/12		101	%	75 - 125
				Acid Extractable Molybdenum (Mo)	2024/10/12		97	%	75 - 125
				Acid Extractable Nickel (Ni)	2024/10/12		98	%	75 - 125
				Acid Extractable Selenium (Se)	2024/10/12		99	%	75 - 125
				Acid Extractable Silver (Ag)	2024/10/12		98	%	75 - 125
				Acid Extractable Thallium (Tl)	2024/10/12		103	%	75 - 125
				Acid Extractable Uranium (U)	2024/10/12		108	%	75 - 125



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Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC									
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits	
9694349	JWK	Spiked Blank	Acid Extractable Vanadium (V)	2024/10/12		NC	%	75 - 125	
			Acid Extractable Zinc (Zn)	2024/10/12		NC	%	75 - 125	
			Acid Extractable Mercury (Hg)	2024/10/12		105	%	75 - 125	
			Acid Extractable Antimony (Sb)	2024/10/11		106	%	80 - 120	
			Acid Extractable Arsenic (As)	2024/10/11		99	%	80 - 120	
			Acid Extractable Barium (Ba)	2024/10/11		97	%	80 - 120	
			Acid Extractable Beryllium (Be)	2024/10/11		97	%	80 - 120	
			Acid Extractable Boron (B)	2024/10/11		101	%	80 - 120	
			Acid Extractable Cadmium (Cd)	2024/10/11		101	%	80 - 120	
			Acid Extractable Chromium (Cr)	2024/10/11		99	%	80 - 120	
			Acid Extractable Cobalt (Co)	2024/10/11		99	%	80 - 120	
			Acid Extractable Copper (Cu)	2024/10/11		98	%	80 - 120	
			Acid Extractable Lead (Pb)	2024/10/11		100	%	80 - 120	
			Acid Extractable Molybdenum (Mo)	2024/10/11		95	%	80 - 120	
			Acid Extractable Nickel (Ni)	2024/10/11		101	%	80 - 120	
			Acid Extractable Selenium (Se)	2024/10/11		102	%	80 - 120	
			Acid Extractable Silver (Ag)	2024/10/11		99	%	80 - 120	
			Acid Extractable Thallium (Tl)	2024/10/11		101	%	80 - 120	
			Acid Extractable Uranium (U)	2024/10/11		103	%	80 - 120	
			9694349	JWK	Method Blank	Acid Extractable Vanadium (V)	2024/10/11		101
Acid Extractable Zinc (Zn)	2024/10/11					102	%	80 - 120	
Acid Extractable Mercury (Hg)	2024/10/11					106	%	80 - 120	
Acid Extractable Antimony (Sb)	2024/10/11	<0.20					ug/g		
Acid Extractable Arsenic (As)	2024/10/11	<1.0					ug/g		
Acid Extractable Barium (Ba)	2024/10/11	<0.50					ug/g		
Acid Extractable Beryllium (Be)	2024/10/11	<0.20					ug/g		
Acid Extractable Boron (B)	2024/10/11	<5.0					ug/g		
Acid Extractable Cadmium (Cd)	2024/10/11	<0.10					ug/g		
Acid Extractable Chromium (Cr)	2024/10/11	<1.0					ug/g		
Acid Extractable Cobalt (Co)	2024/10/11	<0.10					ug/g		
Acid Extractable Copper (Cu)	2024/10/11	<0.50					ug/g		
Acid Extractable Lead (Pb)	2024/10/11	<1.0					ug/g		
Acid Extractable Molybdenum (Mo)	2024/10/11	<0.50					ug/g		
Acid Extractable Nickel (Ni)	2024/10/11	<0.50					ug/g		
Acid Extractable Selenium (Se)	2024/10/11	<0.50					ug/g		
Acid Extractable Silver (Ag)	2024/10/11	<0.20					ug/g		
Acid Extractable Thallium (Tl)	2024/10/11	<0.050					ug/g		
Acid Extractable Uranium (U)	2024/10/11	<0.050					ug/g		
9694349	JWK	RPD				Acid Extractable Vanadium (V)	2024/10/11	<5.0	
			Acid Extractable Zinc (Zn)	2024/10/11	<5.0		ug/g		
			Acid Extractable Mercury (Hg)	2024/10/11	<0.050		ug/g		
			Acid Extractable Antimony (Sb)	2024/10/12	NC		%	30	
			Acid Extractable Arsenic (As)	2024/10/12	0.11		%	30	
			Acid Extractable Barium (Ba)	2024/10/12	0.60		%	30	
			Acid Extractable Beryllium (Be)	2024/10/12	5.4		%	30	
			Acid Extractable Boron (B)	2024/10/12	2.6		%	30	
			Acid Extractable Cadmium (Cd)	2024/10/12	NC		%	30	
			Acid Extractable Chromium (Cr)	2024/10/12	2.3		%	30	
			Acid Extractable Cobalt (Co)	2024/10/12	0.72		%	30	
			Acid Extractable Copper (Cu)	2024/10/12	0.026		%	30	
Acid Extractable Lead (Pb)	2024/10/12	0.88		%	30				
Acid Extractable Molybdenum (Mo)	2024/10/12	NC		%	30				



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9694750	ABS	Matrix Spike [AEZS77-01]	Acid Extractable Nickel (Ni)	2024/10/12	0.97		%	30
			Acid Extractable Selenium (Se)	2024/10/12	NC		%	30
			Acid Extractable Silver (Ag)	2024/10/12	NC		%	30
			Acid Extractable Thallium (Tl)	2024/10/12	13		%	30
			Acid Extractable Uranium (U)	2024/10/12	3.1		%	30
			Acid Extractable Vanadium (V)	2024/10/12	0.86		%	30
			Acid Extractable Zinc (Zn)	2024/10/12	2.4		%	30
			Acid Extractable Mercury (Hg)	2024/10/12	NC		%	30
9694750	ABS	Spiked Blank	o-Terphenyl	2024/10/11		78	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/11		82	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2024/10/11		81	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2024/10/11		76	%	60 - 140
9694750	ABS	Method Blank	o-Terphenyl	2024/10/11		83	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/11		87	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2024/10/11		86	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2024/10/11		81	%	80 - 120
9694750	ABS	RPD [AEZS77-01]	o-Terphenyl	2024/10/11		92	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/11	<7.0		ug/g	
			F3 (C16-C34 Hydrocarbons)	2024/10/11	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2024/10/11	<50		ug/g	
9694750	ABS	RPD [AEZS77-01]	F2 (C10-C16 Hydrocarbons)	2024/10/15	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2024/10/15	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2024/10/15	NC		%	30

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) The recovery was above the upper control limit. This may represent a high bias in some results for this specific analyte. For results that were not detected (ND), this potential bias has no impact.



Bureau Veritas Job #: C4V3527
Report Date: 2024/10/15

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Your P.O. #: OTT2947
Sampler Initials: MS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4V3527
Job Received: 2024/10/04
Final Report Due: 2024/10/11
Disposal Date: 2024/11/03

Invoice Information

Attn: Accounts Payable
SLR Consulting (Canada) Ltd.
#200 – 887 Great Northern Way
Vancouver, BC, V5T 4T5
Email to:
accountspayableca@slrconsulting.com
adang@slrconsulting.com

Report Information

Attn: Matt Williamson
SLR Consulting (Canada) Ltd.
201-100 Stone Rd. W.
Guelph, ON, N1G 5L3
Email to:
mwilliamson@slrconsulting.com

Project Information

Quote #: C41044
PO/AFE#: OTT2947
Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
Site #: 35197
Sampled By: MS

Analytical Summary

A: Due On 2024/10/11

Lab ID	Client Sample ID	Sampling Date/Time	Matrix	# Cont.	O.Reg 153 PAHs (Soil)	O.Reg 153 VOCs by HS & F1-F4 (Soil)	Acid Extractable Metals by ICPMS	Conductivity	Glycols in Soil by GC-FID	Hexavalent Chromium in Soil by IC	Hot Water Extractable Boron	Moisture	pH CaCl2 EXTRACT	Sieve, 75um	Set Number
COC# C#1013277-01-01															
AEZS76	BH24-08_1-1.5M	2024/10/01 14:20	SOIL	5	A	A	A	A	A	A	A	A	A	A	1
AEZS77	BH24-09_2-2.45M	2024/10/01 15:30	SOIL	4	A	A	A	A	A	A	A	A	A		2
AEZS78	BH24-01_1-1.5M	2024/10/02 10:00	SOIL	4	A	A	A	A	A	A	A	A	A		2
AEZS79	BH24-07_2-2.45M	2024/10/02 10:50	SOIL	4	A	A	A	A	A	A	A	A	A		2
AEZS80	BH24-06_1.5-2M	2024/10/02 13:20	SOIL	4	A	A	A	A	A	A	A	A	A		2
AEZS81	BH24-05_1-1.5M	2024/10/02 14:40	SOIL	4	A	A	A	A	A	A	A	A	A		2
AEZS82	BH24-02_2-2.4M	2024/10/03 09:40	SOIL	4	A	A	A	A		A	A	A	A		3
AEZS83	BH24-04_0.5-1M	2024/10/03 11:30	SOIL	4	A	A	A	A		A	A	A	A		3
AEZS84	BH24-03_0.5-1M	2024/10/03 12:40	SOIL	4	A	A	A	A		A	A	A	A		3
AEZS85	BH24-02_0.5-1M	2024/10/03 10:10	SOIL	1										A	4



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4V3527
Job Received: 2024/10/04
Final Report Due: 2024/10/11
Disposal Date: 2024/11/03

A: Due On 2024/10/11

					Sodium Adsorption Ratio (SAR)	Set Number
A: Due On 2024/10/11						
Lab ID	Client Sample ID	Sampling Date/Time	Matrix	# Cont.		
COC# C#1013277-01-01						
AEZS76	BH24-08_1-1.5M	2024/10/01 14:20	SOIL	5	A	1
AEZS77	BH24-09_2-2.45M	2024/10/01 15:30	SOIL	4	A	2
AEZS78	BH24-01_1-1.5M	2024/10/02 10:00	SOIL	4	A	2
AEZS79	BH24-07_2-2.45M	2024/10/02 10:50	SOIL	4	A	2
AEZS80	BH24-06_1.5-2M	2024/10/02 13:20	SOIL	4	A	2
AEZS81	BH24-05_1-1.5M	2024/10/02 14:40	SOIL	4	A	2
AEZS82	BH24-02_2-2.4M	2024/10/03 09:40	SOIL	4	A	3
AEZS83	BH24-04_0.5-1M	2024/10/03 11:30	SOIL	4	A	3
AEZS84	BH24-03_0.5-1M	2024/10/03 12:40	SOIL	4	A	3
AEZS85	BH24-02_0.5-1M	2024/10/03 10:10	SOIL	1		4

Include Criteria on CofA: No

Sample Inspection Observations & Comments

of Samples Received: 10
Details: Sample(s) received in good condition.
Average Temperature: Package 1: 7.0 °C

Additional Notes

- Unless special storage arrangements are made, all samples will be disposed 30 days after receipt. Additional fees may be applied for extended storage.
- Additional fees may be applied for the disposal of hazardous samples.

The contents of this report are subject to change. For up to date information, please refer to the Customer Portal.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4V3527
Job Received: 2024/10/04
Final Report Due: 2024/10/11
Disposal Date: 2024/11/03

Sample Set Listing

Set 1 (1 Sample)	Set 2 (5 Samples)	Set 3 (3 Samples)	Set 4 (1 Sample)
BH24-08_1-1.5M	BH24-09_2-2.45M BH24-01_1-1.5M BH24-07_2-2.45M BH24-06_1.5-2M BH24-05_1-1.5M	BH24-02_2-2.4M BH24-04_0.5-1M BH24-03_0.5-1M	BH24-02_0.5-1M

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2	Set 3	Set 4
O.Reg 153 PAHs (Soil)	Methylnaphthalene, 2-(1-)	0.014	ug/g	X	X	X	
	Acenaphthene	0.005	ug/g	X	X	X	
	Acenaphthylene	0.005	ug/g	X	X	X	
	Anthracene	0.005	ug/g	X	X	X	
	Benzo(a)anthracene	0.005	ug/g	X	X	X	
	Benzo(a)pyrene	0.005	ug/g	X	X	X	
	Benzo(b,j)fluoranthene	0.005	ug/g	X	X	X	
	Benzo(g,h,i)perylene	0.005	ug/g	X	X	X	
	Benzo(k)fluoranthene	0.005	ug/g	X	X	X	
	Chrysene	0.005	ug/g	X	X	X	
	Dibenzo(a,h)anthracene	0.005	ug/g	X	X	X	
	Fluoranthene	0.005	ug/g	X	X	X	
	Fluorene	0.005	ug/g	X	X	X	
	Indeno(1,2,3-cd)pyrene	0.005	ug/g	X	X	X	
	1-Methylnaphthalene	0.005	ug/g	X	X	X	
	2-Methylnaphthalene	0.005	ug/g	X	X	X	
	Naphthalene	0.005	ug/g	X	X	X	
	Phenanthrene	0.005	ug/g	X	X	X	
	Pyrene	0.005	ug/g	X	X	X	
O.Reg 153 VOCs by HS & F1-F4 (Soil)	1,3-Dichloropropene (cis+trans)	0.05	ug/g	X	X	X	
	F2 (C10-C16 Hydrocarbons)	7	ug/g	X	X	X	
	F3 (C16-C34 Hydrocarbons)	50	ug/g	X	X	X	
	F4 (C34-C50 Hydrocarbons)	50	ug/g	X	X	X	
	Reached Baseline at C50	N/A	ug/g	X	X	X	
	Acetone (2-Propanone)	0.49	ug/g	X	X	X	
	Benzene	0.006	ug/g	X	X	X	
	Bromodichloromethane	0.04	ug/g	X	X	X	
	Bromoform	0.04	ug/g	X	X	X	
	Bromomethane	0.04	ug/g	X	X	X	
	Carbon Tetrachloride	0.04	ug/g	X	X	X	
	Chlorobenzene	0.04	ug/g	X	X	X	
	Chloroform	0.04	ug/g	X	X	X	
	Dibromochloromethane	0.04	ug/g	X	X	X	



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4V3527
Job Received: 2024/10/04
Final Report Due: 2024/10/11
Disposal Date: 2024/11/03

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2	Set 3	Set 4
O.Reg 153 VOCs by HS & F1-F4 (Soil)	1,2-Dichlorobenzene	0.04	ug/g	X	X	X	
	1,3-Dichlorobenzene	0.04	ug/g	X	X	X	
	1,4-Dichlorobenzene	0.04	ug/g	X	X	X	
	Dichlorodifluoromethane (FREON 12)	0.04	ug/g	X	X	X	
	1,1-Dichloroethane	0.04	ug/g	X	X	X	
	1,2-Dichloroethane	0.049	ug/g	X	X	X	
	1,1-Dichloroethylene	0.04	ug/g	X	X	X	
	cis-1,2-Dichloroethylene	0.04	ug/g	X	X	X	
	trans-1,2-Dichloroethylene	0.04	ug/g	X	X	X	
	1,2-Dichloropropane	0.04	ug/g	X	X	X	
	cis-1,3-Dichloropropene	0.03	ug/g	X	X	X	
	trans-1,3-Dichloropropene	0.04	ug/g	X	X	X	
	Ethylbenzene	0.01	ug/g	X	X	X	
	Ethylene Dibromide	0.04	ug/g	X	X	X	
	Hexane	0.04	ug/g	X	X	X	
	Methylene Chloride(Dichloromethane)	0.049	ug/g	X	X	X	
	Methyl Ethyl Ketone (2-Butanone)	0.4	ug/g	X	X	X	
	Methyl Isobutyl Ketone	0.4	ug/g	X	X	X	
	Methyl t-butyl ether (MTBE)	0.04	ug/g	X	X	X	
	Styrene	0.04	ug/g	X	X	X	
	1,1,1,2-Tetrachloroethane	0.04	ug/g	X	X	X	
	1,1,2,2-Tetrachloroethane	0.04	ug/g	X	X	X	
	Tetrachloroethylene	0.04	ug/g	X	X	X	
	Toluene	0.02	ug/g	X	X	X	
	1,1,1-Trichloroethane	0.04	ug/g	X	X	X	
	1,1,2-Trichloroethane	0.04	ug/g	X	X	X	
	Trichloroethylene	0.01	ug/g	X	X	X	
	Trichlorofluoromethane (FREON 11)	0.04	ug/g	X	X	X	
	Vinyl Chloride	0.019	ug/g	X	X	X	
	p+m-Xylene	0.02	ug/g	X	X	X	
	o-Xylene	0.02	ug/g	X	X	X	
	Total Xylenes	0.02	ug/g	X	X	X	
	F1 (C6-C10)	10	ug/g	X	X	X	
	F1 (C6-C10) - BTEX	10	ug/g	X	X	X	
	VOCPLUS Required?	N/A	ug/g	X	X	X	
Acid Extractable Metals by ICPMS	Acid Extractable Antimony (Sb)	0.2	ug/g	X	X	X	
	Acid Extractable Arsenic (As)	1	ug/g	X	X	X	
	Acid Extractable Barium (Ba)	0.5	ug/g	X	X	X	
	Acid Extractable Beryllium (Be)	0.2	ug/g	X	X	X	



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4V3527

Job Received: 2024/10/04

Final Report Due: 2024/10/11

Disposal Date: 2024/11/03

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2	Set 3	Set 4
Acid Extractable Metals by ICPMS	Acid Extractable Boron (B)	5	ug/g	X	X	X	
	Acid Extractable Cadmium (Cd)	0.1	ug/g	X	X	X	
	Acid Extractable Chromium (Cr)	1	ug/g	X	X	X	
	Acid Extractable Cobalt (Co)	0.1	ug/g	X	X	X	
	Acid Extractable Copper (Cu)	0.5	ug/g	X	X	X	
	Acid Extractable Lead (Pb)	1	ug/g	X	X	X	
	Acid Extractable Molybdenum (Mo)	0.5	ug/g	X	X	X	
	Acid Extractable Nickel (Ni)	0.5	ug/g	X	X	X	
	Acid Extractable Selenium (Se)	0.5	ug/g	X	X	X	
	Acid Extractable Silver (Ag)	0.2	ug/g	X	X	X	
	Acid Extractable Thallium (Tl)	0.05	ug/g	X	X	X	
	Acid Extractable Uranium (U)	0.05	ug/g	X	X	X	
	Acid Extractable Vanadium (V)	5	ug/g	X	X	X	
	Acid Extractable Zinc (Zn)	5	ug/g	X	X	X	
	Acid Extractable Mercury (Hg)	0.05	ug/g	X	X	X	
Conductivity	Conductivity	0.002	mS/cm	X	X	X	
Glycols in Soil by GC-FID	Propylene Glycol	10	mg/kg	X	X		
	Ethylene Glycol	10	mg/kg	X	X		
	Diethylene Glycol	10	mg/kg	X	X		
	Total Glycol	10	mg/kg	X	X		
Hexavalent Chromium in Soil by IC	Chromium (VI)	0.18	ug/g	X	X	X	
Hot Water Extractable Boron	Hot Water Ext. Boron (B)	0.05	ug/g	X	X	X	
Moisture	Moisture	1	%	X	X	X	
pH CaCl2 EXTRACT	Available (CaCl2) pH	N/A	pH	X	X	X	
Sieve, 75um	Grain Size	N/A	%	X			X
	Sieve - #200 (<0.075mm)	1	%	X			X
	Sieve - #200 (>0.075mm)	1	%	X			X
Sodium Adsorption Ratio (SAR)	Sodium Adsorption Ratio	N/A	N/A	X	X	X	

*RDLs are subject to change based on interferences present at the time of analysis.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4V3527

Job Received: 2024/10/04

Final Report Due: 2024/10/11

Disposal Date: 2024/11/03

Cost Estimate

#	Description	Matrix	Quote #	Rate	Test Total
9	O.Reg 153 PAHs (Soil)	SOIL	C41044	\$ 50.09	\$ 450.81
9	O.Reg 153 VOCs by HS & F1-F4 (Soil)	SOIL	C41044	\$ 94.52	\$ 850.68
9	Acid Extractable Metals by ICPMS	SOIL	C41044	\$ 27.83	\$ 250.47
9	Conductivity	SOIL	C41044	\$ 6.96	\$ 62.64
6	Glycols in Soil by GC-FID	SOIL	C41044	\$ 83.48	\$ 500.88
9	Hexavalent Chromium in Soil by IC	SOIL	C41044	\$ 17.53	\$ 157.77
9	Hot Water Extractable Boron	SOIL	C41044	\$ 15.86	\$ 142.74
9	Moisture	SOIL	C41044	\$ 2.00	\$ 18.00
10	Non hazardous disposal/container supply	SOIL	C41044	\$ 8.50	\$ 85.00
9	pH CaCl2 EXTRACT	SOIL	C41044	\$ 6.96	\$ 62.64
9	SAR - ICP Metals	SOIL	C41044	\$ 0.00	\$ 0.00
2	Sieve, 75um	SOIL	C41044	\$ 13.63	\$ 27.26
9	Sodium Adsorption Ratio (SAR)	SOIL	C41044	\$ 20.12	\$ 181.08
Total (excluding applicable taxes):				\$ 2,789.97	

C4V3527
2024/10/04 09:00



Bureau Veritas
5740 Campbell Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free: 800-563-6266 Fax: (905) 817-5777 www.bvna.com

C

Page 1 of 1

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#39437 SLR Consulting (Canada) Ltd.	Company Name:	SLR Consulting (Canada) Ltd.	Quotation #:	C41044
Attention:	Accounts Payable	Attention:	Matt Williamson	P.O. #:	OTT2947
Address:	#200 - 887 Great Northern Way Vancouver BC V5T 4T5	Address:	100 Stone Road West, Suite 201 Guelph, ON N1G 5L3	Project:	OTT2947
Tel:	(604) 738-2500	Tel:	226-706-8080	Project Name:	Suncor 4000 Riverside Drive
Email:	accountspayableca@slrconsulting.com;adang@slrcons	Email:	mwilliamson@slrconsulting.com	Site #:	35197
				Sampled By:	MS/EJ



NONT-2024-10-1472

1013277

COC #:

Project Manager:

Keshani Vih

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY						Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)							Turnaround Time (TAT) Required: Please provide advance notice for rush projects			
Regulation 153 (2011)			Other Regulations				Special Instructions		VOCs	BTEX	FI-F4	PAHs	Metals/Inorganics (exclude CN-)	Glycols	Grain Size (75µm)	Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.	
Table 1	Table 2	Table 3	CCME	Reg 558	MISA		PWQO	Other								Sanitary Sewer Bylaw	Storm Sewer Bylaw
☐ Table 1	☐ Res/Park	☐ Medium/Fine	☐ CCME	☐ Reg 558	☐ MISA	☐ PWQO	☐ Other	☐ Sanitary Sewer Bylaw	☐ Storm Sewer Bylaw	☐ Municipality	☐ Reg 406 Table	☐ Other					
☐ Table 2	☐ Ind/Comm	☒ Coarse	☐ Reg 558	☐ Storm Sewer Bylaw	☐ Municipality	☐ Reg 406 Table	☐ Other	☐ Sanitary Sewer Bylaw	☐ Storm Sewer Bylaw	☐ Municipality	☐ Reg 406 Table	☐ Other					
☒ Table 3	☐ Agri/Other	☐ For RSC	☐ CCME	☐ Reg 558	☐ MISA	☐ PWQO	☐ Other	☐ Sanitary Sewer Bylaw	☐ Storm Sewer Bylaw	☐ Municipality	☐ Reg 406 Table	☐ Other					
☐ Table			☐ CCME	☐ Reg 558	☐ MISA	☐ PWQO	☐ Other	☐ Sanitary Sewer Bylaw	☐ Storm Sewer Bylaw	☐ Municipality	☐ Reg 406 Table	☐ Other					
Include Criteria on Certificate of Analysis (Y/N)?																	
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix													
1 N/A	BH24-08-1-1.5m	2024/10/01	14:20	Soil	No											5	
2	BH24-09-2-2.45m	2024/10/01	15:30													4	
3	BH24-01-1-1.5m	2024/10/02	10:00													4	
4	BH24-07-2-2.45m	2024/10/02	10:50													4	
5	BH24-06-1.5-2m	2024/10/02	13:20													4	
6	BH24-05-1-1.5m	2024/10/02	14:40													4	
7	BH24-02-2-2.45m	2024/10/03	9:40													4	
8	BH24-04-0.5-1m	2024/10/03	11:30													4	
9	BH24-03-0.5-1m	2024/10/03	12:40													4	
10	BH24-02-0.5-1m	2024/10/03	10:10													1	
* RELINQUISHED BY: (Signature/Print)						RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)		Time		# Jars used and not submitted		Laboratory Use Only			
Melanie St Cyr						Patricia Silva		2024/10/04		09:00		7/8/16 (ice)		Custody Seal Present Intact			
Date: 24/10/03						Date: 24/10/05		Time: 08:40						Custody Seal Present Intact			
* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.						* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.						* SAMPLE CONTAINER, PRESERVATION, HOLD-TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCs.					
Bureau Veritas Canada (2019) Inc.						Bureau Veritas Canada (2019) Inc.						Bureau Veritas Canada (2019) Inc.					



Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
Suncor
#200 – 887 Great Northern Way
Vancouver, BC
CANADA V5T 4T5

Your P.O. #: OTT2947
Your Project #: OTT2947
Site#: 35197
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your C.O.C. #: C#1013277-01-01

Report Date: 2024/10/21
Report #: R8370203
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4W1825

Received: 2024/10/11, 13:52

Sample Matrix: Soil
Samples Received: 1

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Cyanide (WAD) in Leachates (1)	1	N/A	2024/10/18	CAM SOP-00457	OMOE 3015 m
Fluoride by ISE in Leachates (1)	1	2024/10/18	2024/10/18	CAM SOP-00449	SM 24 4500-F- C m
Total Metals in TCLP Leachate by ICPMS (1)	1	2024/10/17	2024/10/18	CAM SOP-00447	EPA 6020B m
Ignitability of a Sample (1)	1	2024/10/18	2024/10/18	CAM SOP-00432	EPA 1030 Rev. 1 m
Nitrate& Nitrite as Nitrogen in Leachate (1)	1	N/A	2024/10/18	CAM SOP-00440	SM 24 4500-NO3I/NO2B
TCLP - % Solids (1)	1	2024/10/16	2024/10/17	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid (1)	1	N/A	2024/10/17	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH (1)	1	N/A	2024/10/17	CAM SOP-00401	EPA 1311 Update I m
TCLP Zero Headspace Extraction (1)	1	2024/10/17	2024/10/18	CAM SOP-00430	EPA 1311 m
VOCs in ZHE Leachates (1)	1	2024/10/18	2024/10/18	CAM SOP-00228	EPA 8260D

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8



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SLR Consulting (Canada) Ltd.
Suncor
#200 – 887 Great Northern Way
Vancouver, BC
CANADA V5T 4T5

Your P.O. #: OTT2947
Your Project #: OTT2947
Site#: 35197
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your C.O.C. #: C#1013277-01-01

Report Date: 2024/10/21
Report #: R8370203
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4W1825

Received: 2024/10/11, 13:52

Encryption Key



Bureau Veritas
21 Oct 2024 15:35:59

Please direct all questions regarding this Certificate of Analysis to:

Keshani Vijh, Sr. Project Manager
Email: keshani.vijh@bureauveritas.com
Phone# (613) 274-0573

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This report has been generated and distributed using a secure automated process.

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID			AFSO24			
Sampling Date			2024/10/10 14:10			
COC Number			C#1013277-01-01			
	UNITS	347	TCLP-10-10-2024	RDL	MDL	QC Batch
Charge/Prep Analysis						
Amount Extracted (Wet Weight) (g)	N/A	-	25	N/A	N/A	9707512
Inorganics						
Final pH	pH	-	5.75			9706583
Leachable Fluoride (F-)	mg/L	150	<0.10	0.10	0.0060	9709092
Initial pH	pH	-	9.71			9706583
TCLP - % Solids	%	-	100	0.2	N/A	9704399
TCLP Extraction Fluid	N/A	-	FLUID 1			9706581
Leachable WAD Cyanide (Free)	mg/L	20	<0.010	0.010	0.0040	9709095
Leachable Nitrite (N)	mg/L	-	<0.10	0.10	0.020	9709096
Leachable Nitrate (N)	mg/L	-	<1.0	1.0	0.10	9709096
Leachable Nitrate + Nitrite (N)	mg/L	1000	<1.0	1.0	0.10	9709096
RDL = Reportable Detection Limit QC Batch = Quality Control Batch 347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00) N/A = Not Applicable						



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID			AFSO24			
Sampling Date			2024/10/10 14:10			
COC Number			C#1013277-01-01			
	UNITS	347	TCLP-10-10-2024	RDL	MDL	QC Batch
Metals						
Leachable Arsenic (As)	mg/L	2.5	<0.2	0.2	0.01	9708140
Leachable Barium (Ba)	mg/L	100	0.3	0.2	0.01	9708140
Leachable Boron (B)	mg/L	500	<0.1	0.1	0.02	9708140
Leachable Cadmium (Cd)	mg/L	0.5	<0.05	0.05	0.0007	9708140
Leachable Chromium (Cr)	mg/L	5	<0.1	0.1	0.01	9708140
Leachable Lead (Pb)	mg/L	5	<0.1	0.1	0.001	9708140
Leachable Mercury (Hg)	mg/L	0.1	<0.001	0.001	0.0005	9708140
Leachable Selenium (Se)	mg/L	1	<0.1	0.1	0.01	9708140
Leachable Silver (Ag)	mg/L	5	<0.01	0.01	0.001	9708140
Leachable Uranium (U)	mg/L	10	<0.01	0.01	0.001	9708140
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)						



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
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Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (SOIL)

Bureau Veritas ID			AFSO24			
Sampling Date			2024/10/10 14:10			
COC Number			C#1013277-01-01			
	UNITS	347	TCLP-10-10-2024	RDL	MDL	QC Batch
Volatile Organics						
Leachable Benzene	mg/L	0.5	<0.020	0.020	0.0020	9709538
Leachable Carbon Tetrachloride	mg/L	0.5	<0.020	0.020	0.0020	9709538
Leachable Chlorobenzene	mg/L	8	<0.020	0.020	0.0020	9709538
Leachable Chloroform	mg/L	10	<0.020	0.020	0.0020	9709538
Leachable 1,2-Dichlorobenzene	mg/L	20	<0.050	0.050	0.0040	9709538
Leachable 1,4-Dichlorobenzene	mg/L	0.5	<0.050	0.050	0.0040	9709538
Leachable 1,2-Dichloroethane	mg/L	0.5	<0.050	0.050	0.0040	9709538
Leachable 1,1-Dichloroethylene	mg/L	1.4	<0.020	0.020	0.0020	9709538
Leachable Methylene Chloride(Dichloromethane)	mg/L	5	<0.20	0.20	0.010	9709538
Leachable Methyl Ethyl Ketone (2-Butanone)	mg/L	200	<1.0	1.0	1.0	9709538
Leachable Tetrachloroethylene	mg/L	3	<0.020	0.020	0.0020	9709538
Leachable Trichloroethylene	mg/L	5	<0.020	0.020	0.0020	9709538
Leachable Vinyl Chloride	mg/L	0.2	<0.020	0.020	0.0040	9709538
Surrogate Recovery (%)						
Leachable 4-Bromofluorobenzene	%	-	104			9709538
Leachable D4-1,2-Dichloroethane	%	-	97			9709538
Leachable D8-Toluene	%	-	93			9709538
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
347: Ontario Reg. 347/90 Schedule 4 Leachate Quality Criteria (as amended by Reg 558/00)						



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

MISCELLANEOUS (SOIL)

Bureau Veritas ID		AFSO24		
Sampling Date		2024/10/10 14:10		
COC Number		C#1013277-01-01		
	UNITS	TCLP-10-10-2024	MDL	QC Batch
Inorganics				
Ignitability	N/A	NF/NI		9710147
QC Batch = Quality Control Batch				



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
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GENERAL COMMENTS

Sample AFSO24 [TCLP-10-10-2024] : NF/NI=Non Flammable and Non Ignitable

Results relate only to the items tested.



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9708140	PBA	Matrix Spike [AFSO24-02]	Leachable Arsenic (As)	2024/10/18		100	%	80 - 120
			Leachable Barium (Ba)	2024/10/18		94	%	80 - 120
			Leachable Boron (B)	2024/10/18		93	%	80 - 120
			Leachable Cadmium (Cd)	2024/10/18		98	%	80 - 120
			Leachable Chromium (Cr)	2024/10/18		100	%	80 - 120
			Leachable Lead (Pb)	2024/10/18		93	%	80 - 120
			Leachable Mercury (Hg)	2024/10/18		95	%	80 - 120
			Leachable Selenium (Se)	2024/10/18		98	%	80 - 120
			Leachable Silver (Ag)	2024/10/18		96	%	80 - 120
			Leachable Uranium (U)	2024/10/18		96	%	80 - 120
9708140	PBA	Leachate Blank	Leachable Arsenic (As)	2024/10/18	<0.2		mg/L	
			Leachable Barium (Ba)	2024/10/18	<0.2		mg/L	
			Leachable Boron (B)	2024/10/18	<0.1		mg/L	
			Leachable Cadmium (Cd)	2024/10/18	<0.05		mg/L	
			Leachable Chromium (Cr)	2024/10/18	<0.1		mg/L	
			Leachable Lead (Pb)	2024/10/18	<0.1		mg/L	
			Leachable Mercury (Hg)	2024/10/18	<0.001		mg/L	
			Leachable Selenium (Se)	2024/10/18	<0.1		mg/L	
			Leachable Silver (Ag)	2024/10/18	<0.01		mg/L	
			Leachable Uranium (U)	2024/10/18	<0.01		mg/L	
9708140	PBA	RPD	Leachable Arsenic (As)	2024/10/18	NC		%	35
			Leachable Barium (Ba)	2024/10/18	NC		%	35
			Leachable Boron (B)	2024/10/18	NC		%	35
			Leachable Cadmium (Cd)	2024/10/18	NC		%	35
			Leachable Chromium (Cr)	2024/10/18	NC		%	35
			Leachable Lead (Pb)	2024/10/18	NC		%	35
			Leachable Mercury (Hg)	2024/10/18	NC		%	35
			Leachable Selenium (Se)	2024/10/18	NC		%	35
			Leachable Silver (Ag)	2024/10/18	NC		%	35
			Leachable Uranium (U)	2024/10/18	NC		%	35
9708140	PBA	Spiked Blank	Leachable Arsenic (As)	2024/10/18		101	%	80 - 120
			Leachable Barium (Ba)	2024/10/18		96	%	80 - 120
			Leachable Boron (B)	2024/10/18		92	%	80 - 120
			Leachable Cadmium (Cd)	2024/10/18		98	%	80 - 120
			Leachable Chromium (Cr)	2024/10/18		101	%	80 - 120
			Leachable Lead (Pb)	2024/10/18		96	%	80 - 120
			Leachable Mercury (Hg)	2024/10/18		98	%	80 - 120
			Leachable Selenium (Se)	2024/10/18		100	%	80 - 120
			Leachable Silver (Ag)	2024/10/18		97	%	80 - 120
			Leachable Uranium (U)	2024/10/18		96	%	80 - 120
9708140	PBA	Method Blank	Leachable Arsenic (As)	2024/10/18	<0.2		mg/L	
			Leachable Barium (Ba)	2024/10/18	<0.2		mg/L	
			Leachable Boron (B)	2024/10/18	<0.1		mg/L	
			Leachable Cadmium (Cd)	2024/10/18	<0.05		mg/L	
			Leachable Chromium (Cr)	2024/10/18	<0.1		mg/L	
			Leachable Lead (Pb)	2024/10/18	<0.1		mg/L	
			Leachable Mercury (Hg)	2024/10/18	<0.001		mg/L	
			Leachable Selenium (Se)	2024/10/18	<0.1		mg/L	
			Leachable Silver (Ag)	2024/10/18	<0.01		mg/L	
			Leachable Uranium (U)	2024/10/18	<0.01		mg/L	
9708140	PBA	RPD [AFSO24-02]	Leachable Arsenic (As)	2024/10/18	NC		%	35
			Leachable Barium (Ba)	2024/10/18	3.4		%	35



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Boron (B)	2024/10/18	NC		%	35
			Leachable Cadmium (Cd)	2024/10/18	NC		%	35
			Leachable Chromium (Cr)	2024/10/18	NC		%	35
			Leachable Lead (Pb)	2024/10/18	NC		%	35
			Leachable Mercury (Hg)	2024/10/18	NC		%	35
			Leachable Selenium (Se)	2024/10/18	NC		%	35
			Leachable Silver (Ag)	2024/10/18	NC		%	35
			Leachable Uranium (U)	2024/10/18	NC		%	35
9709092	NGI	Matrix Spike [AFSO24-02]	Leachable Fluoride (F-)	2024/10/18		99	%	80 - 120
9709092	NGI	Leachate Blank	Leachable Fluoride (F-)	2024/10/18	<0.10		mg/L	
9709092	NGI	Spiked Blank	Leachable Fluoride (F-)	2024/10/18		101	%	80 - 120
9709092	NGI	Method Blank	Leachable Fluoride (F-)	2024/10/18	<0.10		mg/L	
9709092	NGI	RPD [AFSO24-02]	Leachable Fluoride (F-)	2024/10/18	NC		%	25
9709095	GYA	Matrix Spike [AFSO24-02]	Leachable WAD Cyanide (Free)	2024/10/18		96	%	80 - 120
9709095	GYA	Leachate Blank	Leachable WAD Cyanide (Free)	2024/10/18	<0.010		mg/L	
9709095	GYA	Spiked Blank	Leachable WAD Cyanide (Free)	2024/10/18		101	%	80 - 120
9709095	GYA	Method Blank	Leachable WAD Cyanide (Free)	2024/10/18	<0.0020		mg/L	
9709095	GYA	RPD [AFSO24-02]	Leachable WAD Cyanide (Free)	2024/10/18	NC		%	20
9709096	C_N	Matrix Spike [AFSO24-02]	Leachable Nitrite (N)	2024/10/18		104	%	80 - 120
			Leachable Nitrate (N)	2024/10/18		82	%	80 - 120
			Leachable Nitrate + Nitrite (N)	2024/10/18		87	%	80 - 120
9709096	C_N	Leachate Blank	Leachable Nitrite (N)	2024/10/18	<0.10		mg/L	
			Leachable Nitrate (N)	2024/10/18	<1.0		mg/L	
			Leachable Nitrate + Nitrite (N)	2024/10/18	<1.0		mg/L	
9709096	C_N	Spiked Blank	Leachable Nitrite (N)	2024/10/18		108	%	80 - 120
			Leachable Nitrate (N)	2024/10/18		88	%	80 - 120
			Leachable Nitrate + Nitrite (N)	2024/10/18		92	%	80 - 120
9709096	C_N	Method Blank	Leachable Nitrite (N)	2024/10/18	<0.10		mg/L	
			Leachable Nitrate (N)	2024/10/18	<1.0		mg/L	
			Leachable Nitrate + Nitrite (N)	2024/10/18	<1.0		mg/L	
9709096	C_N	RPD [AFSO24-02]	Leachable Nitrite (N)	2024/10/18	NC		%	20
			Leachable Nitrate (N)	2024/10/18	NC		%	20
			Leachable Nitrate + Nitrite (N)	2024/10/18	NC		%	20
9709538	MBV	Matrix Spike	Leachable 4-Bromofluorobenzene	2024/10/18		102	%	70 - 130
			Leachable D4-1,2-Dichloroethane	2024/10/18		96	%	70 - 130
			Leachable D8-Toluene	2024/10/18		102	%	70 - 130
			Leachable Benzene	2024/10/18		96	%	70 - 130
			Leachable Carbon Tetrachloride	2024/10/18		99	%	70 - 130
			Leachable Chlorobenzene	2024/10/18		87	%	70 - 130
			Leachable Chloroform	2024/10/18		94	%	70 - 130
			Leachable 1,2-Dichlorobenzene	2024/10/18		94	%	70 - 130
			Leachable 1,4-Dichlorobenzene	2024/10/18		96	%	70 - 130
			Leachable 1,2-Dichloroethane	2024/10/18		89	%	70 - 130
			Leachable 1,1-Dichloroethylene	2024/10/18		96	%	70 - 130
			Leachable Methylene Chloride(Dichloromethan	2024/10/18		91	%	70 - 130
			Leachable Methyl Ethyl Ketone (2-Butanone)	2024/10/18		94	%	60 - 140
			Leachable Tetrachloroethylene	2024/10/18		95	%	70 - 130
			Leachable Trichloroethylene	2024/10/18		97	%	70 - 130
			Leachable Vinyl Chloride	2024/10/18		91	%	70 - 130
9709538	MBV	Spiked Blank	Leachable 4-Bromofluorobenzene	2024/10/18		103	%	70 - 130
			Leachable D4-1,2-Dichloroethane	2024/10/18		100	%	70 - 130
			Leachable D8-Toluene	2024/10/18		100	%	70 - 130



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9709538	MBV	Method Blank		Leachable Benzene	2024/10/18		100	%	70 - 130
				Leachable Carbon Tetrachloride	2024/10/18		101	%	70 - 130
				Leachable Chlorobenzene	2024/10/18		88	%	70 - 130
				Leachable Chloroform	2024/10/18		98	%	70 - 130
				Leachable 1,2-Dichlorobenzene	2024/10/18		95	%	70 - 130
				Leachable 1,4-Dichlorobenzene	2024/10/18		97	%	70 - 130
				Leachable 1,2-Dichloroethane	2024/10/18		96	%	70 - 130
				Leachable 1,1-Dichloroethylene	2024/10/18		98	%	70 - 130
				Leachable Methylene Chloride(Dichloromethan	2024/10/18		97	%	70 - 130
				Leachable Methyl Ethyl Ketone (2-Butanone)	2024/10/18		101	%	60 - 140
				Leachable Tetrachloroethylene	2024/10/18		94	%	70 - 130
				Leachable Trichloroethylene	2024/10/18		101	%	70 - 130
				Leachable Vinyl Chloride	2024/10/18		93	%	70 - 130
				Leachable 4-Bromofluorobenzene	2024/10/18		103	%	70 - 130
				Leachable D4-1,2-Dichloroethane	2024/10/18		98	%	70 - 130
				Leachable D8-Toluene	2024/10/18		95	%	70 - 130
				Leachable Benzene	2024/10/18	<0.020		mg/L	
				Leachable Carbon Tetrachloride	2024/10/18	<0.020		mg/L	
				Leachable Chlorobenzene	2024/10/18	<0.020		mg/L	
				Leachable Chloroform	2024/10/18	<0.020		mg/L	
				Leachable 1,2-Dichlorobenzene	2024/10/18	<0.050		mg/L	
				Leachable 1,4-Dichlorobenzene	2024/10/18	<0.050		mg/L	
				Leachable 1,2-Dichloroethane	2024/10/18	<0.050		mg/L	
				Leachable 1,1-Dichloroethylene	2024/10/18	<0.020		mg/L	
				Leachable Methylene Chloride(Dichloromethan	2024/10/18	<0.20		mg/L	
				Leachable Methyl Ethyl Ketone (2-Butanone)	2024/10/18	<1.0		mg/L	
				Leachable Tetrachloroethylene	2024/10/18	<0.020		mg/L	
				Leachable Trichloroethylene	2024/10/18	<0.020		mg/L	
				Leachable Vinyl Chloride	2024/10/18	<0.020		mg/L	
9709538	MBV	RPD		Leachable Benzene	2024/10/18	NC		%	30
				Leachable Carbon Tetrachloride	2024/10/18	NC		%	30
				Leachable Chlorobenzene	2024/10/18	NC		%	30
				Leachable Chloroform	2024/10/18	NC		%	30
				Leachable 1,2-Dichlorobenzene	2024/10/18	NC		%	30
				Leachable 1,4-Dichlorobenzene	2024/10/18	NC		%	30
				Leachable 1,2-Dichloroethane	2024/10/18	NC		%	30
				Leachable 1,1-Dichloroethylene	2024/10/18	NC		%	30
				Leachable Methylene Chloride(Dichloromethan	2024/10/18	NC		%	30
				Leachable Methyl Ethyl Ketone (2-Butanone)	2024/10/18	NC		%	30
				Leachable Tetrachloroethylene	2024/10/18	NC		%	30
				Leachable Trichloroethylene	2024/10/18	NC		%	30



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC								
Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Leachable Vinyl Chloride	2024/10/18	NC		%	30
Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.								
Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.								
Leachate Blank: A blank matrix containing all reagents used in the leaching procedure. Used to determine any process contamination.								
Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.								
Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.								
Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.								
NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).								



Bureau Veritas Job #: C4W1825
Report Date: 2024/10/21

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE, OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

A handwritten signature in black ink that reads "Louise A. Harding".

Louise Harding, Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W1825
Job Received: 2024/10/11
Final Report Due: 2024/10/21
Disposal Date: 2024/11/10

Invoice Information

Attn: Accounts Payable
SLR Consulting (Canada) Ltd.
#200 – 887 Great Northern Way
Vancouver, BC, V5T 4T5
Email to:
accountspayableca@slrconsulting.com
adang@slrconsulting.com

Report Information

Attn: Matt Williamson
SLR Consulting (Canada) Ltd.
#200 – 887 Great Northern Way
Vancouver, BC, V5T 4T5
Email to:
mwilliamson@slrconsulting.com

Project Information

Quote #: C41044
PO/AFE#: OTT2947
Project #: OTT2947
Site Location: SUNCOR 400 RIVERSIDE DRIVE,
OTTAWA
Site #: 35197
Sampled By: MS

Analytical Summary

A: Due On 2024/10/21

Lab ID	Client Sample ID	Sampling Date/Time	Matrix	# Cont.	O.Reg 558 TCLP Inorganics Package	O.Reg 558 TCLP VOCs by HS	TCLP Leachate Preparation	Ignitability of a Sample
COC# C#1013277-01-01								
AFSO24	TCLP-10-10-2024	2024/10/10 14:10	SOIL	3	A	A	A	A

Include Criteria on CofA: Yes Criteria : Regulation 558/00

Sample Inspection Observations & Comments

of Samples Received: 1
Details: Sample(s) received in good condition.
Average Temperature: Package 1: 6.7 °C
Package 2: 9.3 °C

Additional Notes

- Unless special storage arrangements are made, all samples will be disposed 30 days after receipt. Additional fees may be applied for extended storage.
- Additional fees may be applied for the disposal of hazardous samples.

The contents of this report are subject to change. For up to date information, please refer to the Customer Portal.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W1825
Job Received: 2024/10/11
Final Report Due: 2024/10/21
Disposal Date: 2024/11/10

Parameter Summary

Package/Test	Parameter	RDL *	Unit	Samples
O.Reg 558 TCLP Inorganics Package	Leachable WAD Cyanide (Free)	0.002	mg/L	All
	Leachable Fluoride (F-)	0.1	mg/L	All
	Leachable Nitrite (N)	0.1	mg/L	All
	Leachable Nitrate (N)	1	mg/L	All
	Leachable Nitrate + Nitrite (N)	1	mg/L	All
	Leachable Arsenic (As)	0.2	mg/L	All
	Leachable Barium (Ba)	0.2	mg/L	All
	Leachable Boron (B)	0.1	mg/L	All
	Leachable Cadmium (Cd)	0.05	mg/L	All
	Leachable Chromium (Cr)	0.1	mg/L	All
	Leachable Lead (Pb)	0.1	mg/L	All
	Leachable Mercury (Hg)	0.001	mg/L	All
	Leachable Selenium (Se)	0.1	mg/L	All
	Leachable Silver (Ag)	0.01	mg/L	All
	Leachable Uranium (U)	0.01	mg/L	All
O.Reg 558 TCLP VOCs by HS	Amount Extracted (Wet Weight) (g)	N/A	N/A	All
	Leachable Benzene	0.02	mg/L	All
	Leachable Carbon Tetrachloride	0.02	mg/L	All
	Leachable Chlorobenzene	0.02	mg/L	All
	Leachable Chloroform	0.02	mg/L	All
	Leachable 1,2-Dichlorobenzene	0.05	mg/L	All
	Leachable 1,4-Dichlorobenzene	0.05	mg/L	All
	Leachable 1,2-Dichloroethane	0.05	mg/L	All
	Leachable 1,1-Dichloroethylene	0.02	mg/L	All
	Leachable Methylene Chloride(Dichloromethane)	0.2	mg/L	All
	Leachable Methyl Ethyl Ketone (2-Butanone)	1	mg/L	All
	Leachable Tetrachloroethylene	0.02	mg/L	All
	Leachable Trichloroethylene	0.02	mg/L	All
	Leachable Vinyl Chloride	0.02	mg/L	All
TCLP Leachate Preparation	TCLP - % Solids	0.2	%	All
	TCLP Extraction Fluid	N/A	N/A	All
	Final pH	N/A	pH	All
	Initial pH	N/A	pH	All
Ignitability of a Sample	Ignitability	N/A	N/A	All

*RDLs are subject to change based on interferences present at the time of analysis.

2024/10/11 13:52

Received in Ottawa

CHAIN OF CUSTODY RECORD

Page 1 of 1

INVOICE TO:				REPORT TO:				PROJECT INFORMATION:				Laboratory Use Only:					
Company Name: #39437 SLR Consulting (Canada) Ltd.				Company Name: SLR Consulting (Canada) Ltd.				Quotation #: C41044				Bureau Veritas Job #:					
Attention: Accounts Payable				Attention: Matt Williamson				P.O. #: 0112947				Bottle Order #:					
Address: #200 - 887 Great Northern Way Vancouver BC V5T 4T5				Address: 200 Stone Road West Suite 201 Guelph ON N1G 5L3				Project: Suncor 4000 Riverside Ottawa				Barcode: 1013277					
Tel: (604) 738-2500 Fax: (604) 738-2542				Tel: 226-226-8080 Fax:				Project Name: Suncor 4000 Riverside Ottawa				COC #:					
Email: accounts.payable.ca@slrconsulting.com; adang@slrcons				Email: mwilliamson@slrconsulting.com				Site #: MS				Barcode: C#1013277-01-01					
MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY								ANALYSIS REQUESTED (PLEASE BE SPECIFIC)									
Regulation 153 (2011)				Other Regulations				Special Instructions				Field Filtered (please circle): Metals / Hg / Cr-VI					
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ____				☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA ☐ Municipality _____ ☐ PWQO ☐ Reg 406 Table _____ ☒ Other Reg 558													
Include Criteria on Certificate of Analysis (Y/N)?																	
	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	TCLP-VOCs	Metalist	Inorganic	TCLP-Ignitability								
1		TCLP-10-10-2024	2024/10/10	14:10	Soil	No	X	X	X								3
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
* RELINQUISHED BY: (Signature/Print)				Date: (YY/MM/DD)		Time		RECEIVED BY: (Signature/Print)				Date: (YY/MM/DD)		Time		# jars used and not submitted	
Melanie Boye Melanie St Cyr				24/10/11		12:15		Ampelices S... [Signature]				2024/10/11		13:52			
								[Signature]				20/10/12		09:02			
								Laboratory Use Only									
								Time Sensitive				Temperature (°C) on Recal					
								Custody Seal Present				Yes No					
								Intact									
* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS. ** IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS. *** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.																	



Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
201-100 Stone Rd. W.
Guelph, ON
Canada N1G 5L3

Your P.O. #: OTT2947
Your Project #: OTT2947
Site#: 35197
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your C.O.C. #: C#1013277-01-01

Report Date: 2024/10/22

Report #: R8371886

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4W1831

Received: 2024/10/11, 13:52

Sample Matrix: Soil
Samples Received: 18

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum (1)	3	N/A	2024/10/22	CAM SOP-00301	EPA 8270D m
Hot Water Extractable Boron (1)	4	2024/10/17	2024/10/18	CAM SOP-00408	R153 Ana. Prot. 2011
Conductivity (1)	4	2024/10/18	2024/10/18	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1, 2)	4	2024/10/18	2024/10/18	CAM SOP-00436	EPA 3060A/7199 m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	14	N/A	2024/10/17	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydro. CCME F1 & BTEX in Soil (1, 3)	2	N/A	2024/10/18	CAM SOP-00315	CCME PHC-CWS m
Petroleum Hydrocarbons F2-F4 in Soil (1, 4)	16	2024/10/18	2024/10/22	CAM SOP-00316	CCME CWS m
Glycols in Soil by GC-FID (1)	2	N/A	2024/10/17	CAM SOP-00322	EPA 8015 m
Acid Extractable Metals by ICPMS (1)	4	2024/10/18	2024/10/18	CAM SOP-00447	EPA 6020B m
Moisture (1)	16	N/A	2024/10/15	CAM SOP-00445	Carter 2nd ed 70.2 m
PAH Compounds in Soil by GC/MS (SIM) (1)	1	2024/10/21	2024/10/21	CAM SOP-00318	EPA 8270E
PAH Compounds in Soil by GC/MS (SIM) (1)	2	2024/10/21	2024/10/22	CAM SOP-00318	EPA 8270E
pH CaCl2 EXTRACT (1)	4	2024/10/17	2024/10/17	CAM SOP-00413	EPA 9045 D m
Sieve, 75um (1)	3	N/A	2024/10/18	CAM SOP-00467	ASTM D1140 -17 m
Sodium Adsorption Ratio (SAR) (1)	4	N/A	2024/10/19	CAM SOP-00102	EPA 6010C

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.



Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
201-100 Stone Rd. W.
Guelph, ON
Canada N1G 5L3

Your P.O. #: OTT2947
Your Project #: OTT2947
Site#: 35197
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your C.O.C. #: C#1013277-01-01

Report Date: 2024/10/22

Report #: R8371886

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4W1831

Received: 2024/10/11, 13:52

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd, Mississauga, ON, L5N 2L8

(2) Soils are reported on a dry weight basis unless otherwise specified.

(3) No lab extraction date is given for F1BTX & VOC samples that are field preserved with methanol. Extraction date is the date sampled unless otherwise stated.

(4) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003".

Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key



Bureau Veritas

22 Oct 2024 15:06:14

Please direct all questions regarding this Certificate of Analysis to:

Keshani Vijh, Sr. Project Manager

Email: keshani.vijh@bureauveritas.com

Phone# (613) 274-0573

=====

This report has been generated and distributed using a secure automated process.

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Bureau Veritas Job #: C4W1831
Report Date: 2024/10/22

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		AFSP09	AFSP10	AFSP11	AFSP12			
Sampling Date		2024/10/09 15:45	2024/10/10 12:30	2024/10/08 16:20	2024/10/10 09:20			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-01_6.09-6.7	BH24-02_4.57-5.02	BH24-03_6.09-6.7	BH24-04_3.04-3.65	RDL	MDL	QC Batch

Inorganics								
Moisture	%	21	18	6.5	17	1.0	0.50	9702319
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								

Bureau Veritas ID		AFSP13				AFSP15	AFSP16			
Sampling Date		2024/10/10 09:40				2024/10/07 15:40	2024/10/08 16:20			
COC Number		C#1013277-01-01				C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-04_6.09-6.70	RDL	MDL	QC Batch	BH24-05_6.09-6.70	BH24-06_8.38-9.0	RDL	MDL	QC Batch

Calculated Parameters										
Sodium Adsorption Ratio	N/A	0.46 (1)			9700452					
Inorganics										
Conductivity	mS/cm	0.075	0.002	0.0005	9710924					
Moisture	%	18	1.0	0.50	9702319	23	20	1.0	0.50	9702319
Available (CaCl2) pH	pH	8.01			9708125					
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
(1) Sodium was not detected. To report SAR the sodium detection limit was used in the calculation. This value represents a maximum ratio.										



Bureau Veritas Job #: C4W1831
Report Date: 2024/10/22

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		AFSP17				AFSP18	AFSP19			
Sampling Date		2024/10/08 10:45				2024/10/08 11:18	2024/10/08 12:30			
COC Number		C#1013277-01-01				C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-06_9.14-9.75	RDL	MDL	QC Batch	BH24-06_11.43-12.04	BH24-06_16-16.61	RDL	MDL	QC Batch

Inorganics										
Moisture	%					14	23	1.0	0.50	9702319
Miscellaneous Parameters										
Grain Size	%	COARSE	N/A	N/A	9708149					
Sieve - #200 (<0.075mm)	%	7	1	N/A	9708149					
Sieve - #200 (>0.075mm)	%	93	1	N/A	9708149					
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable										

Bureau Veritas ID		AFSP20				AFSP21			
Sampling Date		2024/10/08 12:50				2024/10/10 13:56			
COC Number		C#1013277-01-01				C#1013277-01-01			
	UNITS	BH24-06_16.76-17.38	RDL	MDL	QC Batch	BH24-07_6.09-6.70	RDL	MDL	QC Batch

Calculated Parameters									
Sodium Adsorption Ratio	N/A					2.6			9700452
Inorganics									
Conductivity	mS/cm					0.33	0.002	0.0005	9710924
Moisture	%					22	1.0	0.50	9702319
Available (CaCl2) pH	pH					7.95			9708125
Miscellaneous Parameters									
Grain Size	%	COARSE	N/A	N/A	9708149	COARSE	N/A	N/A	9708149
Sieve - #200 (<0.075mm)	%	10	1	N/A	9708149	6	1	N/A	9708149
Sieve - #200 (>0.075mm)	%	90	1	N/A	9708149	94	1	N/A	9708149
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable									



Bureau Veritas Job #: C4W1831
Report Date: 2024/10/22

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		AFSP22		AFSP24			
Sampling Date		2024/10/09 10:00		2024/10/09 11:10			
COC Number		C#1013277-01-01		C#1013277-01-01			
	UNITS	BH24-08_6.09-6.70	QC Batch	BH24-08_11.43-12.04	RDL	MDL	QC Batch
Inorganics							
Moisture	%	22	9702319	16	1.0	0.50	9701926
RDL = Reportable Detection Limit QC Batch = Quality Control Batch							

Bureau Veritas ID		AFSP25				AFSP26	AFSP27			
Sampling Date		2024/10/09 12:50				2024/10/10 11:15	2024/10/08			
COC Number		C#1013277-01-01				C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_16.76-17.37	RDL	MDL	QC Batch	BH24-09_6.85-7.45	DUP-1	RDL	MDL	QC Batch
Calculated Parameters										
Sodium Adsorption Ratio	N/A	5.1			9700452					
Inorganics										
Conductivity	mS/cm	0.20	0.002	0.0005	9710924					
Moisture	%	21	1.0	0.50	9702319	20	21	1.0	0.50	9702319
Available (CaCl ₂) pH	pH	7.90			9708125					
RDL = Reportable Detection Limit QC Batch = Quality Control Batch										

Bureau Veritas ID		AFSP28			
Sampling Date		2024/10/09			
COC Number		C#1013277-01-01			
	UNITS	DUP-2	RDL	MDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	5.0			9700452
Inorganics					
Conductivity	mS/cm	0.19	0.002	0.0005	9710924
Moisture	%	19	1.0	0.50	9702632
Available (CaCl ₂) pH	pH	7.84			9708125
RDL = Reportable Detection Limit QC Batch = Quality Control Batch					



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Sampler Initials: MS

GLYCOLS BY GC-FID (SOIL)

Bureau Veritas ID		AFSP25	AFSP28			
Sampling Date		2024/10/09 12:50	2024/10/09			
COC Number		C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_16.76-17.37	DUP-2	RDL	MDL	QC Batch
Glycols						
Propylene Glycol	mg/kg	<10	<10	10	2	9706526
Ethylene Glycol	mg/kg	<10	<10	10	2	9706526
Diethylene Glycol	mg/kg	<10	<10	10	2	9706526
Total Glycol	mg/kg	<10	<10	10	2	9706526
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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Sampler Initials: MS

ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		AFSP13	AFSP21	AFSP25			
Sampling Date		2024/10/10 09:40	2024/10/10 13:56	2024/10/09 12:50			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-04_6.09-6.70	BH24-07_6.09-6.70	BH24-08_16.76-17.37	RDL	MDL	QC Batch
Inorganics							
Chromium (VI)	ug/g	<0.18	<0.18	<0.18	0.18	0.050	9709692
Metals							
Hot Water Ext. Boron (B)	ug/g	<0.050	0.054	0.051	0.050	0.030	9707305
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	<0.20	0.20	0.10	9709502
Acid Extractable Arsenic (As)	ug/g	<1.0	<1.0	<1.0	1.0	0.10	9709502
Acid Extractable Barium (Ba)	ug/g	17	15	36	0.50	0.30	9709502
Acid Extractable Beryllium (Be)	ug/g	<0.20	<0.20	<0.20	0.20	0.020	9709502
Acid Extractable Boron (B)	ug/g	<5.0	<5.0	<5.0	5.0	1.0	9709502
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	<0.10	0.10	0.030	9709502
Acid Extractable Chromium (Cr)	ug/g	5.7	6.9	11	1.0	0.20	9709502
Acid Extractable Cobalt (Co)	ug/g	2.4	2.8	3.7	0.10	0.020	9709502
Acid Extractable Copper (Cu)	ug/g	4.1	5.2	6.0	0.50	0.20	9709502
Acid Extractable Lead (Pb)	ug/g	1.4	1.7	1.9	1.0	0.10	9709502
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	<0.50	0.50	0.10	9709502
Acid Extractable Nickel (Ni)	ug/g	3.2	3.9	5.1	0.50	0.20	9709502
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	<0.50	0.50	0.10	9709502
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	<0.20	0.20	0.040	9709502
Acid Extractable Thallium (Tl)	ug/g	<0.050	<0.050	<0.050	0.050	0.010	9709502
Acid Extractable Uranium (U)	ug/g	0.40	0.45	0.62	0.050	0.030	9709502
Acid Extractable Vanadium (V)	ug/g	17	21	31	5.0	0.50	9709502
Acid Extractable Zinc (Zn)	ug/g	6.7	8.4	10	5.0	0.50	9709502
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	<0.050	0.050	0.030	9709502
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



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ELEMENTS BY ATOMIC SPECTROSCOPY (SOIL)

Bureau Veritas ID		AFSP28			
Sampling Date		2024/10/09			
COC Number		C#1013277-01-01			
	UNITS	DUP-2	RDL	MDL	QC Batch
Inorganics					
Chromium (VI)	ug/g	<0.18	0.18	0.050	9709692
Metals					
Hot Water Ext. Boron (B)	ug/g	0.071	0.050	0.030	9707305
Acid Extractable Antimony (Sb)	ug/g	<0.20	0.20	0.10	9709502
Acid Extractable Arsenic (As)	ug/g	<1.0	1.0	0.10	9709502
Acid Extractable Barium (Ba)	ug/g	33	0.50	0.30	9709502
Acid Extractable Beryllium (Be)	ug/g	<0.20	0.20	0.020	9709502
Acid Extractable Boron (B)	ug/g	<5.0	5.0	1.0	9709502
Acid Extractable Cadmium (Cd)	ug/g	<0.10	0.10	0.030	9709502
Acid Extractable Chromium (Cr)	ug/g	9.4	1.0	0.20	9709502
Acid Extractable Cobalt (Co)	ug/g	3.6	0.10	0.020	9709502
Acid Extractable Copper (Cu)	ug/g	5.8	0.50	0.20	9709502
Acid Extractable Lead (Pb)	ug/g	1.8	1.0	0.10	9709502
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	0.50	0.10	9709502
Acid Extractable Nickel (Ni)	ug/g	4.8	0.50	0.20	9709502
Acid Extractable Selenium (Se)	ug/g	<0.50	0.50	0.10	9709502
Acid Extractable Silver (Ag)	ug/g	<0.20	0.20	0.040	9709502
Acid Extractable Thallium (Tl)	ug/g	<0.050	0.050	0.010	9709502
Acid Extractable Uranium (U)	ug/g	0.62	0.050	0.030	9709502
Acid Extractable Vanadium (V)	ug/g	29	5.0	0.50	9709502
Acid Extractable Zinc (Zn)	ug/g	9.2	5.0	0.50	9709502
Acid Extractable Mercury (Hg)	ug/g	<0.050	0.050	0.030	9709502
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



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Sampler Initials: MS

SEMI-VOLATILE ORGANICS BY GC-MS (SOIL)

Bureau Veritas ID		AFSP18	AFSP25	AFSP28			
Sampling Date		2024/10/08 11:18	2024/10/09 12:50	2024/10/09			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-06_11.43-12.04	BH24-08_16.76-17.37	DUP-2	RDL	MDL	QC Batch
Calculated Parameters							
Methylnaphthalene, 2-(1-)	ug/g	<0.0071	<0.0071	<0.0071	0.0071	N/A	9700742
Polyaromatic Hydrocarbons							
Acenaphthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9714037
Acenaphthylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Benzo(a)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9714037
Benzo(a)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Benzo(b/j)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9714037
Benzo(g,h,i)perylene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9714037
Benzo(k)fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9714037
Chrysene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0020	9714037
Dibenzo(a,h)anthracene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9714037
Fluoranthene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Fluorene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Indeno(1,2,3-cd)pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0040	9714037
1-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
2-Methylnaphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Naphthalene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Phenanthrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Pyrene	ug/g	<0.0050	<0.0050	<0.0050	0.0050	0.0010	9714037
Surrogate Recovery (%)							
D10-Anthracene	%	121	126	123			9714037
D14-Terphenyl (FS)	%	100	100	101			9714037
D8-Acenaphthylene	%	74	60	66			9714037
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable							



Bureau Veritas Job #: C4W1831
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Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AFSP09	AFSP10	AFSP11	AFSP12			
Sampling Date		2024/10/09 15:45	2024/10/10 12:30	2024/10/08 16:20	2024/10/10 09:20			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-01_6.09-6.7	BH24-02_4.57-5.02	BH24-03_6.09-6.7	BH24-04_3.04-3.65	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons								
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
p+m-Xylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
Total Xylenes	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	5.0	9705921
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	5.0	9705921
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	<7.0	<7.0	7.0	5.0	9708937
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	5.0	9708937
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	10	9708937
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes			9708937
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	104	104	104	103			9705921
4-Bromofluorobenzene	%	100	90	93	102			9705921
D10-o-Xylene	%	108	128	113	103			9705921
D4-1,2-Dichloroethane	%	102	109	109	105			9705921
o-Terphenyl	%	99	99	103	102			9708937
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



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Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AFSP13	AFSP15	AFSP16	AFSP18			
Sampling Date		2024/10/10 09:40	2024/10/07 15:40	2024/10/08 16:20	2024/10/08 11:18			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-04_6.09-6.70	BH24-05_6.09-6.70	BH24-06_8.38-9.0	BH24-06_11.43-12.04	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons								
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
p+m-Xylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
Total Xylenes	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	5.0	9705921
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	5.0	9705921
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	<7.0	<7.0	7.0	5.0	9708937
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	5.0	9708937
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	10	9708937
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes			9708937
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	104	105	104	104			9705921
4-Bromofluorobenzene	%	98	96	95	99			9705921
D10-o-Xylene	%	107	105	112	97			9705921
D4-1,2-Dichloroethane	%	106	103	104	103			9705921
o-Terphenyl	%	101	101	97	101			9708937
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4W1831
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Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AFSP19	AFSP21	AFSP22	AFSP24			
Sampling Date		2024/10/08 12:30	2024/10/10 13:56	2024/10/09 10:00	2024/10/09 11:10			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-06_16-16.61	BH24-07_6.09-6.70	BH24-08_6.09-6.70	BH24-08_11.43-12.04	RDL	MDL	QC Batch
BTEX & F1 Hydrocarbons								
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
p+m-Xylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
Total Xylenes	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	5.0	9705921
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	5.0	9705921
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	<7.0	<7.0	7.0	5.0	9708937
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	5.0	9708937
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	10	9708937
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes			9708937
Surrogate Recovery (%)								
1,4-Difluorobenzene	%	104	105	106	104			9705921
4-Bromofluorobenzene	%	92	94	96	100			9705921
D10-o-Xylene	%	109	123	116	116			9705921
D4-1,2-Dichloroethane	%	102	102	103	103			9705921
o-Terphenyl	%	104	103	98	106			9708937
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4W1831
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SLR Consulting (Canada) Ltd.
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Your P.O. #: OTT2947
Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AFSP25	AFSP26	AFSP27	AFSP28			
Sampling Date		2024/10/09 12:50	2024/10/10 11:15	2024/10/08	2024/10/09			
COC Number		C#1013277-01-01	C#1013277-01-01	C#1013277-01-01	C#1013277-01-01			
	UNITS	BH24-08_16.76-17.37	BH24-09_6.85-7.45	DUP-1	DUP-2	RDL	MDL	QC Batch

BTEX & F1 Hydrocarbons								
Benzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Toluene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
Ethylbenzene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
o-Xylene	ug/g	<0.020	<0.020	<0.020	<0.020	0.020	0.020	9705921
p+m-Xylene	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
Total Xylenes	ug/g	<0.040	<0.040	<0.040	<0.040	0.040	0.040	9705921
F1 (C6-C10)	ug/g	<10	<10	<10	<10	10	5.0	9705921
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	<10	10	5.0	9705921

F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/g	<7.0	<7.0	<7.0	<7.0	7.0	5.0	9708937
F3 (C16-C34 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	5.0	9708937
F4 (C34-C50 Hydrocarbons)	ug/g	<50	<50	<50	<50	50	10	9708937
Reached Baseline at C50	ug/g	Yes	Yes	Yes	Yes			9708937

Surrogate Recovery (%)								
1,4-Difluorobenzene	%	103	105	104	105			9705921
4-Bromofluorobenzene	%	100	88	88	98			9705921
D10-o-Xylene	%	112	113	111	146 (1)			9705921
D4-1,2-Dichloroethane	%	106	105	104	104			9705921
o-Terphenyl	%	102	103	103	103			9708937

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



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GENERAL COMMENTS

Sample AFSP28 [DUP-2] : The recovery of the extraction surrogate compound was above the upper control limit. Visible loss of methanol was observed in this sample. As a result, there is an increased level of uncertainty.

Results relate only to the items tested.



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QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9701926	MUC	RPD [AFSP24-01]	Moisture		2024/10/15	5.8		%	20
9702319	MUC	RPD [AFSP18-01]	Moisture		2024/10/15	4.3		%	20
9702632	MUC	RPD	Moisture		2024/10/15	0		%	20
9705921	RGA	Matrix Spike [AFSP09-03]	1,4-Difluorobenzene		2024/10/17		102	%	60 - 140
			4-Bromofluorobenzene		2024/10/17		105	%	60 - 140
			D10-o-Xylene		2024/10/17		93	%	60 - 140
			D4-1,2-Dichloroethane		2024/10/17		98	%	60 - 140
			Benzene		2024/10/17		79	%	50 - 140
			Toluene		2024/10/17		75	%	50 - 140
			Ethylbenzene		2024/10/17		89	%	50 - 140
			o-Xylene		2024/10/17		87	%	50 - 140
			p+m-Xylene		2024/10/17		83	%	50 - 140
			F1 (C6-C10)		2024/10/17		86	%	60 - 140
9705921	RGA	Spiked Blank	1,4-Difluorobenzene		2024/10/17		102	%	60 - 140
			4-Bromofluorobenzene		2024/10/17		104	%	60 - 140
			D10-o-Xylene		2024/10/17		88	%	60 - 140
			D4-1,2-Dichloroethane		2024/10/17		98	%	60 - 140
			Benzene		2024/10/17		75	%	50 - 140
			Toluene		2024/10/17		71	%	50 - 140
			Ethylbenzene		2024/10/17		85	%	50 - 140
			o-Xylene		2024/10/17		81	%	50 - 140
			p+m-Xylene		2024/10/17		78	%	50 - 140
			F1 (C6-C10)		2024/10/17		83	%	80 - 120
9705921	RGA	Method Blank	1,4-Difluorobenzene		2024/10/17		103	%	60 - 140
			4-Bromofluorobenzene		2024/10/17		95	%	60 - 140
			D10-o-Xylene		2024/10/17		93	%	60 - 140
			D4-1,2-Dichloroethane		2024/10/17		102	%	60 - 140
			Benzene		2024/10/17	<0.020		ug/g	
			Toluene		2024/10/17	<0.020		ug/g	
			Ethylbenzene		2024/10/17	<0.020		ug/g	
			o-Xylene		2024/10/17	<0.020		ug/g	
			p+m-Xylene		2024/10/17	<0.040		ug/g	
			Total Xylenes		2024/10/17	<0.040		ug/g	
			F1 (C6-C10)		2024/10/17	<10		ug/g	
			F1 (C6-C10) - BTEX		2024/10/17	<10		ug/g	
9705921	RGA	RPD [AFSP09-03]	Benzene		2024/10/17	NC		%	50
			Toluene		2024/10/17	NC		%	50
			Ethylbenzene		2024/10/17	NC		%	50
			o-Xylene		2024/10/17	NC		%	50
			p+m-Xylene		2024/10/17	NC		%	50
			Total Xylenes		2024/10/17	NC		%	50
			F1 (C6-C10)		2024/10/17	NC		%	30
			F1 (C6-C10) - BTEX		2024/10/17	NC		%	30
9706526	AGA	Matrix Spike [AFSP28-01]	Propylene Glycol		2024/10/17		108	%	60 - 140
			Ethylene Glycol		2024/10/17		109	%	60 - 140
			Diethylene Glycol		2024/10/17		107	%	60 - 140
9706526	AGA	Spiked Blank	Propylene Glycol		2024/10/17		109	%	60 - 140
			Ethylene Glycol		2024/10/17		110	%	60 - 140
			Diethylene Glycol		2024/10/17		110	%	60 - 140
9706526	AGA	Method Blank	Propylene Glycol		2024/10/17	<10		mg/kg	
			Ethylene Glycol		2024/10/17	<10		mg/kg	
			Diethylene Glycol		2024/10/17	<10		mg/kg	



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9706526	AGA	RPD [AFSP28-01]	Total Glycol	2024/10/17	<10		mg/kg	
			Propylene Glycol	2024/10/17	NC		%	50
			Ethylene Glycol	2024/10/17	NC		%	50
			Diethylene Glycol	2024/10/17	NC		%	50
			Total Glycol	2024/10/17	NC		%	50
9707305	JOH	Matrix Spike	Hot Water Ext. Boron (B)	2024/10/18		113	%	75 - 125
9707305	JOH	Spiked Blank	Hot Water Ext. Boron (B)	2024/10/18		104	%	75 - 125
9707305	JOH	Method Blank	Hot Water Ext. Boron (B)	2024/10/18	<0.050		ug/g	
9707305	JOH	RPD	Hot Water Ext. Boron (B)	2024/10/18	NC		%	40
9708125	KIT	Spiked Blank	Available (CaCl2) pH	2024/10/17		100	%	97 - 103
9708125	KIT	RPD	Available (CaCl2) pH	2024/10/17	0.16		%	N/A
9708149	JTS	QC Standard	Sieve - #200 (<0.075mm)	2024/10/18		55	%	53 - 58
			Sieve - #200 (>0.075mm)	2024/10/18		45	%	42 - 47
			Sieve - #200 (<0.075mm)	2024/10/18	0.16		%	20
9708149	JTS	RPD	Sieve - #200 (>0.075mm)	2024/10/18	0.21		%	20
9708937	JJE	Matrix Spike [AFSP24-01]	o-Terphenyl	2024/10/22		109	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/22		107	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2024/10/22		109	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2024/10/22		107	%	60 - 140
9708937	JJE	Spiked Blank	o-Terphenyl	2024/10/22		98	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/22		100	%	80 - 120
			F3 (C16-C34 Hydrocarbons)	2024/10/22		105	%	80 - 120
			F4 (C34-C50 Hydrocarbons)	2024/10/22		101	%	80 - 120
9708937	JJE	Method Blank	o-Terphenyl	2024/10/22		99	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/22	<7.0		ug/g	
			F3 (C16-C34 Hydrocarbons)	2024/10/22	<50		ug/g	
			F4 (C34-C50 Hydrocarbons)	2024/10/22	<50		ug/g	
9708937	JJE	RPD [AFSP24-01]	F2 (C10-C16 Hydrocarbons)	2024/10/22	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2024/10/22	NC		%	30
			F4 (C34-C50 Hydrocarbons)	2024/10/22	NC		%	30
9709502	DT1	Matrix Spike	Acid Extractable Antimony (Sb)	2024/10/18		108	%	75 - 125
			Acid Extractable Arsenic (As)	2024/10/18		98	%	75 - 125
			Acid Extractable Barium (Ba)	2024/10/18		94	%	75 - 125
			Acid Extractable Beryllium (Be)	2024/10/18		98	%	75 - 125
			Acid Extractable Boron (B)	2024/10/18		94	%	75 - 125
			Acid Extractable Cadmium (Cd)	2024/10/18		98	%	75 - 125
			Acid Extractable Chromium (Cr)	2024/10/18		104	%	75 - 125
			Acid Extractable Cobalt (Co)	2024/10/18		102	%	75 - 125
			Acid Extractable Copper (Cu)	2024/10/18		100	%	75 - 125
			Acid Extractable Lead (Pb)	2024/10/18		97	%	75 - 125
			Acid Extractable Molybdenum (Mo)	2024/10/18		98	%	75 - 125
			Acid Extractable Nickel (Ni)	2024/10/18		103	%	75 - 125
			Acid Extractable Selenium (Se)	2024/10/18		97	%	75 - 125
			Acid Extractable Silver (Ag)	2024/10/18		98	%	75 - 125
			Acid Extractable Thallium (Tl)	2024/10/18		100	%	75 - 125
			Acid Extractable Uranium (U)	2024/10/18		105	%	75 - 125
			Acid Extractable Vanadium (V)	2024/10/18		104	%	75 - 125
			Acid Extractable Zinc (Zn)	2024/10/18		104	%	75 - 125
			Acid Extractable Mercury (Hg)	2024/10/18		99	%	75 - 125
			Acid Extractable Antimony (Sb)	2024/10/18		110	%	80 - 120
			Acid Extractable Arsenic (As)	2024/10/18		103	%	80 - 120
			Acid Extractable Barium (Ba)	2024/10/18		98	%	80 - 120



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QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Acid Extractable Beryllium (Be)	2024/10/18		97	%	80 - 120
				Acid Extractable Boron (B)	2024/10/18		93	%	80 - 120
				Acid Extractable Cadmium (Cd)	2024/10/18		99	%	80 - 120
				Acid Extractable Chromium (Cr)	2024/10/18		104	%	80 - 120
				Acid Extractable Cobalt (Co)	2024/10/18		104	%	80 - 120
				Acid Extractable Copper (Cu)	2024/10/18		101	%	80 - 120
				Acid Extractable Lead (Pb)	2024/10/18		102	%	80 - 120
				Acid Extractable Molybdenum (Mo)	2024/10/18		96	%	80 - 120
				Acid Extractable Nickel (Ni)	2024/10/18		108	%	80 - 120
				Acid Extractable Selenium (Se)	2024/10/18		101	%	80 - 120
				Acid Extractable Silver (Ag)	2024/10/18		99	%	80 - 120
				Acid Extractable Thallium (Tl)	2024/10/18		103	%	80 - 120
				Acid Extractable Uranium (U)	2024/10/18		105	%	80 - 120
				Acid Extractable Vanadium (V)	2024/10/18		104	%	80 - 120
				Acid Extractable Zinc (Zn)	2024/10/18		106	%	80 - 120
				Acid Extractable Mercury (Hg)	2024/10/18		101	%	80 - 120
	9709502	DT1	Method Blank	Acid Extractable Antimony (Sb)	2024/10/18	<0.20		ug/g	
				Acid Extractable Arsenic (As)	2024/10/18	<1.0		ug/g	
				Acid Extractable Barium (Ba)	2024/10/18	<0.50		ug/g	
				Acid Extractable Beryllium (Be)	2024/10/18	<0.20		ug/g	
				Acid Extractable Boron (B)	2024/10/18	<5.0		ug/g	
				Acid Extractable Cadmium (Cd)	2024/10/18	<0.10		ug/g	
				Acid Extractable Chromium (Cr)	2024/10/18	<1.0		ug/g	
				Acid Extractable Cobalt (Co)	2024/10/18	<0.10		ug/g	
				Acid Extractable Copper (Cu)	2024/10/18	<0.50		ug/g	
				Acid Extractable Lead (Pb)	2024/10/18	<1.0		ug/g	
				Acid Extractable Molybdenum (Mo)	2024/10/18	<0.50		ug/g	
				Acid Extractable Nickel (Ni)	2024/10/18	<0.50		ug/g	
				Acid Extractable Selenium (Se)	2024/10/18	<0.50		ug/g	
				Acid Extractable Silver (Ag)	2024/10/18	<0.20		ug/g	
				Acid Extractable Thallium (Tl)	2024/10/18	<0.050		ug/g	
				Acid Extractable Uranium (U)	2024/10/18	<0.050		ug/g	
				Acid Extractable Vanadium (V)	2024/10/18	<5.0		ug/g	
				Acid Extractable Zinc (Zn)	2024/10/18	<5.0		ug/g	
				Acid Extractable Mercury (Hg)	2024/10/18	<0.050		ug/g	
	9709502	DT1	RPD	Acid Extractable Antimony (Sb)	2024/10/18	NC		%	30
				Acid Extractable Arsenic (As)	2024/10/18	NC		%	30
				Acid Extractable Barium (Ba)	2024/10/18	0.050		%	30
				Acid Extractable Beryllium (Be)	2024/10/18	NC		%	30
				Acid Extractable Boron (B)	2024/10/18	NC		%	30
				Acid Extractable Cadmium (Cd)	2024/10/18	NC		%	30
				Acid Extractable Chromium (Cr)	2024/10/18	1.9		%	30
				Acid Extractable Cobalt (Co)	2024/10/18	0.48		%	30
				Acid Extractable Copper (Cu)	2024/10/18	3.4		%	30
				Acid Extractable Lead (Pb)	2024/10/18	2.0		%	30
				Acid Extractable Molybdenum (Mo)	2024/10/18	NC		%	30
				Acid Extractable Nickel (Ni)	2024/10/18	3.0		%	30
				Acid Extractable Selenium (Se)	2024/10/18	NC		%	30
				Acid Extractable Silver (Ag)	2024/10/18	NC		%	30
				Acid Extractable Thallium (Tl)	2024/10/18	NC		%	30
				Acid Extractable Uranium (U)	2024/10/18	6.3		%	30
				Acid Extractable Vanadium (V)	2024/10/18	0.58		%	30



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Acid Extractable Zinc (Zn)	2024/10/18	0.62		%	30
			Acid Extractable Mercury (Hg)	2024/10/18	NC		%	30
9709692	RSU	Matrix Spike	Chromium (VI)	2024/10/18		88	%	70 - 130
9709692	RSU	Spiked Blank	Chromium (VI)	2024/10/18		92	%	80 - 120
9709692	RSU	Method Blank	Chromium (VI)	2024/10/18	<0.18		ug/g	
9709692	RSU	RPD	Chromium (VI)	2024/10/18	NC		%	35
9710924	KIT	Spiked Blank	Conductivity	2024/10/18		103	%	90 - 110
9710924	KIT	Method Blank	Conductivity	2024/10/18	<0.002		mS/cm	
9710924	KIT	RPD	Conductivity	2024/10/18	1.3		%	10
9714037	JXI	Matrix Spike [AFSP28-01]	D10-Anthracene	2024/10/21		111	%	50 - 130
			D14-Terphenyl (FS)	2024/10/21		90	%	50 - 130
			D8-Acenaphthylene	2024/10/21		73	%	50 - 130
			Acenaphthene	2024/10/21		99	%	50 - 130
			Acenaphthylene	2024/10/21		90	%	50 - 130
			Anthracene	2024/10/21		110	%	50 - 130
			Benzo(a)anthracene	2024/10/21		98	%	50 - 130
			Benzo(a)pyrene	2024/10/21		98	%	50 - 130
			Benzo(b/j)fluoranthene	2024/10/21		111	%	50 - 130
			Benzo(g,h,i)perylene	2024/10/21		92	%	50 - 130
			Benzo(k)fluoranthene	2024/10/21		85	%	50 - 130
			Chrysene	2024/10/21		91	%	50 - 130
			Dibenzo(a,h)anthracene	2024/10/21		97	%	50 - 130
			Fluoranthene	2024/10/21		105	%	50 - 130
			Fluorene	2024/10/21		98	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2024/10/21		92	%	50 - 130
			1-Methylnaphthalene	2024/10/21		92	%	50 - 130
			2-Methylnaphthalene	2024/10/21		85	%	50 - 130
			Naphthalene	2024/10/21		83	%	50 - 130
			Phenanthrene	2024/10/21		96	%	50 - 130
			Pyrene	2024/10/21		111	%	50 - 130
9714037	JXI	Spiked Blank	D10-Anthracene	2024/10/21		102	%	50 - 130
			D14-Terphenyl (FS)	2024/10/21		90	%	50 - 130
			D8-Acenaphthylene	2024/10/21		85	%	50 - 130
			Acenaphthene	2024/10/21		100	%	50 - 130
			Acenaphthylene	2024/10/21		95	%	50 - 130
			Anthracene	2024/10/21		114	%	50 - 130
			Benzo(a)anthracene	2024/10/21		102	%	50 - 130
			Benzo(a)pyrene	2024/10/21		101	%	50 - 130
			Benzo(b/j)fluoranthene	2024/10/21		106	%	50 - 130
			Benzo(g,h,i)perylene	2024/10/21		95	%	50 - 130
			Benzo(k)fluoranthene	2024/10/21		99	%	50 - 130
			Chrysene	2024/10/21		94	%	50 - 130
			Dibenzo(a,h)anthracene	2024/10/21		106	%	50 - 130
			Fluoranthene	2024/10/21		104	%	50 - 130
			Fluorene	2024/10/21		102	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2024/10/21		92	%	50 - 130
			1-Methylnaphthalene	2024/10/21		97	%	50 - 130
			2-Methylnaphthalene	2024/10/21		93	%	50 - 130
			Naphthalene	2024/10/21		96	%	50 - 130
			Phenanthrene	2024/10/21		93	%	50 - 130
			Pyrene	2024/10/21		110	%	50 - 130
9714037	JXI	Method Blank	D10-Anthracene	2024/10/21		117	%	50 - 130



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QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				D14-Terphenyl (FS)	2024/10/21		95	%	50 - 130
				D8-Acenaphthylene	2024/10/21		74	%	50 - 130
				Acenaphthene	2024/10/21	<0.0050		ug/g	
				Acenaphthylene	2024/10/21	<0.0050		ug/g	
				Anthracene	2024/10/21	<0.0050		ug/g	
				Benzo(a)anthracene	2024/10/21	<0.0050		ug/g	
				Benzo(a)pyrene	2024/10/21	<0.0050		ug/g	
				Benzo(b/j)fluoranthene	2024/10/21	<0.0050		ug/g	
				Benzo(g,h,i)perylene	2024/10/21	<0.0050		ug/g	
				Benzo(k)fluoranthene	2024/10/21	<0.0050		ug/g	
				Chrysene	2024/10/21	<0.0050		ug/g	
				Dibenzo(a,h)anthracene	2024/10/21	<0.0050		ug/g	
				Fluoranthene	2024/10/21	<0.0050		ug/g	
				Fluorene	2024/10/21	<0.0050		ug/g	
				Indeno(1,2,3-cd)pyrene	2024/10/21	<0.0050		ug/g	
				1-Methylnaphthalene	2024/10/21	<0.0050		ug/g	
				2-Methylnaphthalene	2024/10/21	<0.0050		ug/g	
				Naphthalene	2024/10/21	<0.0050		ug/g	
				Phenanthrene	2024/10/21	<0.0050		ug/g	
				Pyrene	2024/10/21	<0.0050		ug/g	
9714037		JXI	RPD [AFSP28-01]	Acenaphthene	2024/10/21	NC		%	40
				Acenaphthylene	2024/10/21	NC		%	40
				Anthracene	2024/10/21	NC		%	40
				Benzo(a)anthracene	2024/10/21	NC		%	40
				Benzo(a)pyrene	2024/10/21	NC		%	40
				Benzo(b/j)fluoranthene	2024/10/21	NC		%	40
				Benzo(g,h,i)perylene	2024/10/21	NC		%	40
				Benzo(k)fluoranthene	2024/10/21	NC		%	40
				Chrysene	2024/10/21	NC		%	40
				Dibenzo(a,h)anthracene	2024/10/21	NC		%	40
				Fluoranthene	2024/10/21	NC		%	40
				Fluorene	2024/10/21	NC		%	40
				Indeno(1,2,3-cd)pyrene	2024/10/21	NC		%	40
				1-Methylnaphthalene	2024/10/21	NC		%	40
				2-Methylnaphthalene	2024/10/21	NC		%	40
				Naphthalene	2024/10/21	NC		%	40
				Phenanthrene	2024/10/21	NC		%	40
				Pyrene	2024/10/21	NC		%	40

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).



Bureau Veritas Job #: C4W1831
Report Date: 2024/10/22

SLR Consulting (Canada) Ltd.
Client Project #: OTT2947
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W1831
Job Received: 2024/10/11
Final Report Due: 2024/10/21
Disposal Date: 2024/11/10

Invoice Information	Report Information	Project Information
Attn: Accounts Payable SLR Consulting (Canada) Ltd. #200 – 887 Great Northern Way Vancouver, BC, V5T 4T5 Email to: accountspayableca@slrconsulting.com adang@slrconsulting.com	Attn: Matt Williamson SLR Consulting (Canada) Ltd. 201-100 Stone Rd. W. Guelph, ON, N1G 5L3 Email to: mwilliamson@slrconsulting.com	Quote #: C41044 PO/AFE#: OTT2947 Project #: OTT2947 Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA Site #: 35197 Sampled By: MS Cost Object: C41044_V2

Analytical Summary

A: Due On 2024/10/21

Lab ID	Client Sample ID	Sampling Date/Time	Matrix	# Cont.	O.Reg 153 Metals & Inorganics Pkg (Soil)	O.Reg 153 PAHs (Soil)	O.Reg 153 PHCs, BTEX/F1-F4 (Soil)	Glycols in Soil by GC-FID	Moisture	Sample on Hold	Sieve, 75um	Set Number
COC# C#1013277-01-01												
AFSP09	BH24-01_6.09-6.7	2024/10/09 15:45	SOIL	4			A		A			1
AFSP10	BH24-02_4.57-5.02	2024/10/10 12:30	SOIL	4			A		A			1
AFSP11	BH24-03_6.09-6.7	2024/10/08 16:20	SOIL	4			A		A			1
AFSP12	BH24-04_3.04-3.65	2024/10/10 09:20	SOIL	4			A		A			1
AFSP13	BH24-04_6.09-6.70	2024/10/10 09:40	SOIL	4	A		A		A			2
AFSP14	BH24-05_3.04-3.65	2024/10/07 15:00	SOIL	4						A		3
AFSP15	BH24-05_6.09-6.70	2024/10/07 15:40	SOIL	4			A		A			1
AFSP16	BH24-06_8.38-9.0	2024/10/08 16:20	SOIL	4			A		A			1
AFSP17	BH24-06_9.14-9.75	2024/10/08 10:45	SOIL	1							A	4
AFSP18	BH24-06_11.43-12.04	2024/10/08 11:18	SOIL	4		A	A		A			5
AFSP19	BH24-06_16-16.61	2024/10/08 12:30	SOIL	4			A		A			1
AFSP20	BH24-06_16.76-17.38	2024/10/08 12:50	SOIL	1							A	4



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W1831
Job Received: 2024/10/11
Final Report Due: 2024/10/21
Disposal Date: 2024/11/10

A: Due On 2024/10/21

Lab ID	Client Sample ID	Sampling Date/Time	Matrix	# Cont.	O.Reg 153 Metals & Inorganics Pkg (Soil)	O.Reg 153 PAHs (Soil)	O.Reg 153 PHCs, BTEX/F1-F4 (Soil)	Glycols in Soil by GC-FID	Moisture	Sample on Hold	Sieve, 75um	Set Number
COC# C#1013277-01-01												
AFSP21	BH24-07_6.09-6.70	2024/10/10 13:56	SOIL	4	A		A		A		A	6
AFSP22	BH24-08_6.09-6.70	2024/10/09 10:00	SOIL	4			A		A			1
AFSP23	BH24-08_9.14-9.75	2024/10/09 10:35	SOIL	4						A		3
AFSP24	BH24-08_11.43-12.04	2024/10/09 11:10	SOIL	4			A		A			1
AFSP25	BH24-08_16.76-17.37	2024/10/09 12:50	SOIL	4	A	A	A	A	A			7
AFSP26	BH24-09_6.85-7.45	2024/10/10 11:15	SOIL	4			A		A			1
AFSP27	DUP-1		SOIL	4			A		A			1
AFSP28	DUP-2		SOIL	4	A	A	A	A	A			7

Include Criteria on CofA: No

Sample Inspection Observations & Comments

of Samples Received: 20
Details: Sample(s) received in good condition.
Average Temperature: Package 1: 6.7 °C
Package 2: 9.3 °C

Additional Notes

- Unless special storage arrangements are made, all samples will be disposed 30 days after receipt. Additional fees may be applied for extended storage.
- Additional fees may be applied for the disposal of hazardous samples.

The contents of this report are subject to change. For up to date information, please refer to the Customer Portal.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W1831
Job Received: 2024/10/11
Final Report Due: 2024/10/21
Disposal Date: 2024/11/10

Sample Set Listing

Set 1 (11 Samples)	Set 2 (1 Sample)	Set 3 (2 Samples)	Set 4 (2 Samples)	Set 5 (1 Sample)	Set 6 (1 Sample)	Set 7 (2 Samples)
BH24-01_6.09-6.7 BH24-02_4.57-5.02 BH24-03_6.09-6.7 BH24-04_3.04-3.65 BH24-05_6.09-6.70 BH24-06_8.38-9.0 BH24-06_16-16.61 BH24-08_6.09-6.70 BH24-08_11.43-12.04 BH24-09_6.85-7.45 DUP-1	BH24-04_6.09-6.70	BH24-05_3.04-3.65 BH24-08_9.14-9.75	BH24-06_9.14-9.75 BH24-06_16.76-17.38	BH24-06_11.43-12.04	BH24-07_6.09-6.70	BH24-08_16.76-17.37 DUP-2

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6	Set 7
O.Reg 153 Metals & Inorganics Pkg (Soil)	Acid Extractable Antimony (Sb)	0.2	ug/g		X				X	X
	Acid Extractable Arsenic (As)	1	ug/g		X				X	X
	Acid Extractable Barium (Ba)	0.5	ug/g		X				X	X
	Acid Extractable Beryllium (Be)	0.2	ug/g		X				X	X
	Acid Extractable Boron (B)	5	ug/g		X				X	X
	Acid Extractable Cadmium (Cd)	0.1	ug/g		X				X	X
	Acid Extractable Chromium (Cr)	1	ug/g		X				X	X
	Acid Extractable Cobalt (Co)	0.1	ug/g		X				X	X
	Acid Extractable Copper (Cu)	0.5	ug/g		X				X	X
	Acid Extractable Lead (Pb)	1	ug/g		X				X	X
	Acid Extractable Molybdenum (Mo)	0.5	ug/g		X				X	X
	Acid Extractable Nickel (Ni)	0.5	ug/g		X				X	X
	Acid Extractable Selenium (Se)	0.5	ug/g		X				X	X
	Acid Extractable Silver (Ag)	0.2	ug/g		X				X	X
	Acid Extractable Thallium (Tl)	0.05	ug/g		X				X	X
	Acid Extractable Uranium (U)	0.05	ug/g		X				X	X
	Acid Extractable Vanadium (V)	5	ug/g		X				X	X
	Acid Extractable Zinc (Zn)	5	ug/g		X				X	X
	Acid Extractable Mercury (Hg)	0.05	ug/g		X				X	X
	Conductivity	0.002	mS/cm		X				X	X
	Chromium (VI)	0.18	ug/g		X				X	X
	Hot Water Ext. Boron (B)	0.05	ug/g		X				X	X
	Available (CaCl2) pH	N/A	pH		X				X	X
	Sodium Adsorption Ratio	N/A	N/A		X				X	X
O.Reg 153 PAHs (Soil)	Methylnaphthalene, 2-(1-)	0.014	ug/g					X		X
	Acenaphthene	0.005	ug/g					X		X
	Acenaphthylene	0.005	ug/g					X		X
	Anthracene	0.005	ug/g					X		X



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W1831

Job Received: 2024/10/11

Final Report Due: 2024/10/21

Disposal Date: 2024/11/10

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2	Set 3	Set 4	Set 5	Set 6	Set 7
O.Reg 153 PAHs (Soil)	Benzo(a)anthracene	0.005	ug/g					X		X
	Benzo(a)pyrene	0.005	ug/g					X		X
	Benzo(b,j)fluoranthene	0.005	ug/g					X		X
	Benzo(g,h,i)perylene	0.005	ug/g					X		X
	Benzo(k)fluoranthene	0.005	ug/g					X		X
	Chrysene	0.005	ug/g					X		X
	Dibenzo(a,h)anthracene	0.005	ug/g					X		X
	Fluoranthene	0.005	ug/g					X		X
	Fluorene	0.005	ug/g					X		X
	Indeno(1,2,3-cd)pyrene	0.005	ug/g					X		X
	1-Methylnaphthalene	0.005	ug/g					X		X
	2-Methylnaphthalene	0.005	ug/g					X		X
	Naphthalene	0.005	ug/g					X		X
	Phenanthrene	0.005	ug/g					X		X
	Pyrene	0.005	ug/g					X		X
O.Reg 153 PHCs, BTEX/F1-F4 (Soil)	Benzene	0.02	ug/g	X	X			X	X	X
	Toluene	0.02	ug/g	X	X			X	X	X
	Ethylbenzene	0.02	ug/g	X	X			X	X	X
	o-Xylene	0.02	ug/g	X	X			X	X	X
	p+m-Xylene	0.04	ug/g	X	X			X	X	X
	Total Xylenes	0.04	ug/g	X	X			X	X	X
	F1 (C6-C10)	10	ug/g	X	X			X	X	X
	F1 (C6-C10) - BTEX	10	ug/g	X	X			X	X	X
	F2 (C10-C16 Hydrocarbons)	7	ug/g	X	X			X	X	X
	F3 (C16-C34 Hydrocarbons)	50	ug/g	X	X			X	X	X
	F4 (C34-C50 Hydrocarbons)	50	ug/g	X	X			X	X	X
	Reached Baseline at C50	N/A	ug/g	X	X			X	X	X
Glycols in Soil by GC-FID	Propylene Glycol	10	mg/kg							X
	Ethylene Glycol	10	mg/kg							X
	Diethylene Glycol	10	mg/kg							X
	Total Glycol	10	mg/kg							X
Moisture	Moisture	1	%	X	X			X	X	X
Sample on Hold	No Analysis	N/A				X				
Sieve, 75um	Grain Size	N/A	%				X		X	
	Sieve - #200 (<0.075mm)	1	%				X		X	
	Sieve - #200 (>0.075mm)	1	%				X		X	

*RDLs are subject to change based on interferences present at the time of analysis.



Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvna.com

Received in Ottawa

CHAIN OF CUSTODY RECORD

Page 2 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name: #39437 SLR Consulting (Canada) Ltd.		Company Name: SLR Consulting (Canada) Ltd.		Quotation #: C41044		Bureau Veritas Job #:	
Attention: Accounts Payable		Attention: Matt Williamson		P.O. #: OTT2947		Bottle Order #:	
Address: #200 - 887 Great Northern Way		Address: 100 Stone Road West, Suite 201		Project: OTT2947		1013277	
Vancouver BC V5T 4T5		Guelph, ON N1G 5G3		Project Name: Sunco 4000 Riverside Drive Ottawa		COC #:	
Tel: (604) 738-2500 Fax: (604) 738-2542		Tel: 226-206-8080 Fax:		Site #: 35197		Project Manager:	
Email: accountspayableca@slrconsulting.com; adang@slrcons		Email: mwilliamson@slrconsulting.com		Sampled By: MS		Keshani Viji	

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY				ANALYSIS REQUESTED (PLEASE BE SPECIFIC)										Turnaround Time (TAT) Required: Please provide advance notice for rush projects	
Regulation 153 (2011)				Other Regulations				Special Instructions				Regular (Standard) TAT: (will be applied if Rush TAT is not specified): Standard TAT = 5-7 Working days for most tests. Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details. Job Specific Rush TAT (if applies to entire submission) Date Required: _____ Time Required: _____ Rush Confirmation Number: _____ (call lab for #)			
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☒ Ind/Comm ☒ Coarse ☒ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table _____				☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA ☐ Municipality _____ ☐ PWQO ☐ Reg 406 Table _____ ☐ Other _____											
Include Criteria on Certificate of Analysis (Y/N)?				Field Filtered (please circle): Metals / Hg / Cr / V											
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix											
1	BH24-06-16-16.6	2024/10/08	12:30	Soil	No	BTEX	Fl-P4	PAH	Metals/Inorganics (excl. CN-)	Glycols	Grain Size			4	
2	BH24-06-16.76-17.38	2024/10/08	12:50											1	
3	BH24-07-6.09-6.70	2024/10/10	13:56											4	
4	BH24-08-6.09-6.70	2024/10/09	10:00											4	
5	BH24-08-9.4-9.75	2024/10/09	10:35											4	OW HOLD
6	BH24-08-11.43-12.04	2024/10/09	11:10											4	
7	BH24-08-16.76-17.37	2024/10/09	12:50											4	
8	BH24-09-6.85-7.45	2024/10/10	11:15											4	
9	DUP-1	-	-											4	
10	DUP-2	-	-											4	

* RELINQUISHED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)		Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only				
Melanie St Gr Melanie St Gr		24/10/11	12:15	See p. 1 A84					Time Sensitive	Temperature (°C) on Reel	Custody Seal	Yes	No
				See p. 1						ACTR	Present		
											Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client



Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
Suncor
#200 – 887 Great Northern Way
Vancouver, BC
CANADA V5T 4T5

Your P.O. #: OTT2947
Your Project #: 216.030059.00002
Site#: 4000 Riverside Drive
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your C.O.C. #: C#1017617-01-01

Report Date: 2024/10/25

Report #: R8377714

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4W8659

Received: 2024/10/18, 15:45

Sample Matrix: Water
Samples Received: 5

Analyses	Date		Date Analyzed	Laboratory Method	Analytical Method
	Quantity	Extracted			
Methylnaphthalene Sum (1)	4	N/A	2024/10/25	CAM SOP-00301	EPA 8270D m
1,3-Dichloropropene Sum (1)	5	N/A	2024/10/25		EPA 8260C m
Chloride by Automated Colourimetry (1)	3	N/A	2024/10/24	CAM SOP-00463	SM 24 4500-Cl E m
Chloride by Automated Colourimetry (1)	1	N/A	2024/10/25	CAM SOP-00463	SM 24 4500-Cl E m
Chromium (VI) in Water (1)	4	N/A	2024/10/23	CAM SOP-00436	EPA 7199 m
Petroleum Hydrocarbons F2-F4 in Water (1, 2)	5	2024/10/24	2024/10/24	CAM SOP-00316	CCME PHC-CWS m
Glycols in Water by GC/FID (1)	4	N/A	2024/10/22	CAM SOP-00322	based on EPA 8015
Mercury (1)	4	2024/10/23	2024/10/23	CAM SOP-00453	EPA 7470A m
Dissolved Metals by ICPMS (1)	4	N/A	2024/10/23	CAM SOP-00447	EPA 6020B m
PAH Compounds in Water by GC/MS (SIM) (1)	4	2024/10/24	2024/10/24	CAM SOP-00318	EPA 8270E
Volatile Organic Compounds and F1 PHCs (1)	5	N/A	2024/10/24	CAM SOP-00230	EPA 8260C m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.

Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.



Attention: Matt Williamson

SLR Consulting (Canada) Ltd.
Suncor
#200 – 887 Great Northern Way
Vancouver, BC
CANADA V5T 4T5

Your P.O. #: OTT2947
Your Project #: 216.030059.00002
Site#: 4000 Riverside Drive
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your C.O.C. #: C#1017617-01-01

Report Date: 2024/10/25
Report #: R8377714
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C4W8659

Received: 2024/10/18, 15:45

- (1) This test was performed by Bureau Veritas Mississauga, 6740 Campobello Rd , Mississauga, ON, L5N 2L8
(2) All CCME PHC results met required criteria unless otherwise stated in the report. The CWS PHC methods employed by Bureau Veritas conform to all prescribed elements of the reference method and performance based elements have been validated. All modifications have been validated and proven equivalent following "Alberta Environment's Interpretation of the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Validation of Performance-Based Alternative Methods September 2003". Documentation is available upon request. Modifications from Reference Method for the Canada-wide Standard for Petroleum Hydrocarbons in Soil-Tier 1 Method: F2/F3/F4 data reported using validated cold solvent extraction instead of Soxhlet extraction.

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas

25 Oct 2024 17:38:28

Please direct all questions regarding this Certificate of Analysis to:

Keshani Vijh, Sr. Project Manager
Email: keshani.vijh@bureauveritas.com
Phone# (613) 274-0573

=====

This report has been generated and distributed using a secure automated process.

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

RESULTS OF ANALYSES OF WATER

Bureau Veritas ID		AGHS11				AGHS12			
Sampling Date		2024/10/18 13:20				2024/10/18 11:00			
COC Number		C#1017617-01-01				C#1017617-01-01			
	UNITS	MW24-06	RDL	MDL	QC Batch	MW24-08	RDL	MDL	QC Batch
Inorganics									
Dissolved Chloride (Cl-)	mg/L	850	20	13	9719537	470	5.0	3.3	9720591
RDL = Reportable Detection Limit									
QC Batch = Quality Control Batch									

Bureau Veritas ID		AGHS13			AGHS14			
Sampling Date		2024/10/18 13:00			2024/10/18 13:00			
COC Number		C#1017617-01-01			C#1017617-01-01			
	UNITS	DUP-1	RDL	MDL	FIELD BLANK	RDL	MDL	QC Batch
Inorganics								
Dissolved Chloride (Cl-)	mg/L	480	4.0	2.6	<1.0	1.0	0.66	9719537
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

GLYCOLS BY GC-FID (WATER)

Bureau Veritas ID		AGHS11	AGHS12	AGHS13	AGHS14			
Sampling Date		2024/10/18 13:20	2024/10/18 11:00	2024/10/18	2024/10/18 13:00			
COC Number		C#1017617-01-01	C#1017617-01-01	C#1017617-01-01	C#1017617-01-01			
	UNITS	MW24-06	MW24-08	DUP-1	FIELD BLANK	RDL	MDL	QC Batch
Glycols								
Propylene Glycol	mg/L	<5	<5	<5	<5	5	1	9716083
Ethylene Glycol	mg/L	<5	<5	<5	<5	5	1	9716083
Diethylene Glycol	mg/L	<5	<5	<5	<5	5	1	9716083
Total Glycol	mg/L	<5	<5	<5	<5	5	1	9716083
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID		AGHS11	AGHS12	AGHS13	AGHS14			
Sampling Date		2024/10/18 13:20	2024/10/18 11:00	2024/10/18	2024/10/18 13:00			
COC Number		C#1017617-01-01	C#1017617-01-01	C#1017617-01-01	C#1017617-01-01			
	UNITS	MW24-06	MW24-08	DUP-1	FIELD BLANK	RDL	MDL	QC Batch
Metals								
Chromium (VI)	ug/L	0.70	0.91	0.89	<0.50	0.50	0.30	9718601
Mercury (Hg)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	0.020	9719252
Dissolved Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.20	9715987
Dissolved Arsenic (As)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	0.10	9715987
Dissolved Barium (Ba)	ug/L	200	54	54	<2.0	2.0	0.30	9715987
Dissolved Beryllium (Be)	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	0.050	9715987
Dissolved Boron (B)	ug/L	18	15	15	<10	10	0.60	9715987
Dissolved Cadmium (Cd)	ug/L	<0.090	<0.090	<0.090	<0.090	0.090	0.090	9715987
Dissolved Chromium (Cr)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	0.70	9715987
Dissolved Cobalt (Co)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.040	9715987
Dissolved Copper (Cu)	ug/L	<0.90	1.1	<0.90	<0.90	0.90	0.30	9715987
Dissolved Lead (Pb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9715987
Dissolved Molybdenum (Mo)	ug/L	0.71	0.89	0.86	<0.50	0.50	0.070	9715987
Dissolved Nickel (Ni)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	0.40	9715987
Dissolved Selenium (Se)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	0.20	9715987
Dissolved Silver (Ag)	ug/L	<0.090	<0.090	<0.090	<0.090	0.090	0.020	9715987
Dissolved Sodium (Na)	ug/L	600000	450000	470000	<100	100	20	9715987
Dissolved Thallium (Tl)	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.020	9715987
Dissolved Uranium (U)	ug/L	0.67	0.62	0.63	<0.10	0.10	0.010	9715987
Dissolved Vanadium (V)	ug/L	0.64	0.86	0.90	<0.50	0.50	0.090	9715987
Dissolved Zinc (Zn)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	1.0	9715987
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

SEMI-VOLATILE ORGANICS BY GC-MS (WATER)

Bureau Veritas ID		AGHS11	AGHS12	AGHS13	AGHS14			
Sampling Date		2024/10/18 13:20	2024/10/18 11:00	2024/10/18	2024/10/18 13:00			
COC Number		C#1017617-01-01	C#1017617-01-01	C#1017617-01-01	C#1017617-01-01			
	UNITS	MW24-06	MW24-08	DUP-1	FIELD BLANK	RDL	MDL	QC Batch

Calculated Parameters								
Methylnaphthalene, 2-(1-)	ug/L	<0.071	<0.071	<0.071	<0.071	0.071	N/A	9713473
Polyaromatic Hydrocarbons								
Acenaphthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Acenaphthylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Benzo(a)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Benzo(a)pyrene	ug/L	<0.0090	<0.0090	<0.0090	<0.0090	0.0090	0.0030	9721118
Benzo(b/j)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Benzo(g,h,i)perylene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Benzo(k)fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Chrysene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Dibenzo(a,h)anthracene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Fluoranthene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Fluorene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Indeno(1,2,3-cd)pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
1-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
2-Methylnaphthalene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Naphthalene	ug/L	0.085	0.098	0.085	<0.050	0.050	0.0030	9721118
Phenanthrene	ug/L	<0.030	<0.030	<0.030	<0.030	0.030	0.0030	9721118
Pyrene	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	0.0030	9721118
Surrogate Recovery (%)								
D10-Anthracene	%	108	104	97	109			9721118
D14-Terphenyl (FS)	%	106	103	93	111			9721118
D8-Acenaphthylene	%	102	97	91	103			9721118

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

N/A = Not Applicable



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		AGHS11	AGHS12	AGHS13	AGHS14			
Sampling Date		2024/10/18 13:20	2024/10/18 11:00	2024/10/18	2024/10/18 13:00			
COC Number		C#1017617-01-01	C#1017617-01-01	C#1017617-01-01	C#1017617-01-01			
	UNITS	MW24-06	MW24-08	DUP-1	FIELD BLANK	RDL	MDL	QC Batch
Calculated Parameters								
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.50	9713077
Volatile Organics								
Acetone (2-Propanone)	ug/L	<10	<10	<10	<10	10	1.0	9707011
Benzene	ug/L	<0.17	<0.17	<0.17	<0.17	0.17	0.020	9707011
Bromodichloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
Bromoform	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	0.10	9707011
Bromomethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.10	9707011
Carbon Tetrachloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
Chlorobenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.010	9707011
Chloroform	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
Dibromochloromethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
1,2-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
1,3-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
1,4-Dichlorobenzene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	0.050	9707011
1,1-Dichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
1,2-Dichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.020	9707011
1,1-Dichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
cis-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
trans-1,2-Dichloroethylene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
1,2-Dichloropropane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
cis-1,3-Dichloropropene	ug/L	<0.30	<0.30	<0.30	<0.30	0.30	0.050	9707011
trans-1,3-Dichloropropene	ug/L	<0.40	<0.40	<0.40	<0.40	0.40	0.050	9707011
Ethylbenzene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.010	9707011
Ethylene Dibromide	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
Hexane	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	0.10	9707011
Methylene Chloride(Dichloromethane)	ug/L	<2.0	<2.0	<2.0	<2.0	2.0	0.10	9707011
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	<10	<10	<10	10	0.50	9707011
Methyl Isobutyl Ketone	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	0.10	9707011
Methyl t-butyl ether (MTBE)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
Styrene	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		AGHS11	AGHS12	AGHS13	AGHS14			
Sampling Date		2024/10/18 13:20	2024/10/18 11:00	2024/10/18	2024/10/18 13:00			
COC Number		C#1017617-01-01	C#1017617-01-01	C#1017617-01-01	C#1017617-01-01			
	UNITS	MW24-06	MW24-08	DUP-1	FIELD BLANK	RDL	MDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
Toluene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.010	9707011
1,1,1-Trichloroethane	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
1,1,2-Trichloroethane	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.050	9707011
Trichloroethylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	0.10	9707011
Vinyl Chloride	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.050	9707011
p+m-Xylene	ug/L	<0.20	<0.20	0.20	<0.20	0.20	0.010	9707011
o-Xylene	ug/L	<0.20	<0.20	<0.20	<0.20	0.20	0.010	9707011
Total Xylenes	ug/L	<0.20	<0.20	0.20	<0.20	0.20	0.010	9707011
F1 (C6-C10)	ug/L	<25	<25	<25	<25	25	20	9707011
F1 (C6-C10) - BTEX	ug/L	<25	<25	<25	<25	25	20	9707011
Surrogate Recovery (%)								
4-Bromofluorobenzene	%	102	103	101	104			9707011
D4-1,2-Dichloroethane	%	101	103	104	105			9707011
D8-Toluene	%	93	92	92	92			9707011
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		AGHS15			
Sampling Date		2024/10/18 11:15			
COC Number		C#1017617-01-01			
	UNITS	TRIP BLANK	RDL	MDL	QC Batch
Calculated Parameters					
1,3-Dichloropropene (cis+trans)	ug/L	<0.50	0.50	0.50	9713077
Volatile Organics					
Acetone (2-Propanone)	ug/L	<10	10	1.0	9707011
Benzene	ug/L	<0.17	0.17	0.020	9707011
Bromodichloromethane	ug/L	<0.50	0.50	0.050	9707011
Bromoform	ug/L	<1.0	1.0	0.10	9707011
Bromomethane	ug/L	<0.50	0.50	0.10	9707011
Carbon Tetrachloride	ug/L	<0.20	0.20	0.050	9707011
Chlorobenzene	ug/L	<0.20	0.20	0.010	9707011
Chloroform	ug/L	<0.20	0.20	0.050	9707011
Dibromochloromethane	ug/L	<0.50	0.50	0.050	9707011
1,2-Dichlorobenzene	ug/L	<0.50	0.50	0.050	9707011
1,3-Dichlorobenzene	ug/L	<0.50	0.50	0.050	9707011
1,4-Dichlorobenzene	ug/L	<0.50	0.50	0.050	9707011
Dichlorodifluoromethane (FREON 12)	ug/L	<1.0	1.0	0.050	9707011
1,1-Dichloroethane	ug/L	<0.20	0.20	0.050	9707011
1,2-Dichloroethane	ug/L	<0.50	0.50	0.020	9707011
1,1-Dichloroethylene	ug/L	<0.20	0.20	0.050	9707011
cis-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9707011
trans-1,2-Dichloroethylene	ug/L	<0.50	0.50	0.050	9707011
1,2-Dichloropropane	ug/L	<0.20	0.20	0.050	9707011
cis-1,3-Dichloropropene	ug/L	<0.30	0.30	0.050	9707011
trans-1,3-Dichloropropene	ug/L	<0.40	0.40	0.050	9707011
Ethylbenzene	ug/L	<0.20	0.20	0.010	9707011
Ethylene Dibromide	ug/L	<0.20	0.20	0.050	9707011
Hexane	ug/L	<1.0	1.0	0.10	9707011
Methylene Chloride(Dichloromethane)	ug/L	<2.0	2.0	0.10	9707011
Methyl Ethyl Ketone (2-Butanone)	ug/L	<10	10	0.50	9707011
Methyl Isobutyl Ketone	ug/L	<5.0	5.0	0.10	9707011
Methyl t-butyl ether (MTBE)	ug/L	<0.50	0.50	0.050	9707011
Styrene	ug/L	<0.50	0.50	0.050	9707011
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9707011
1,1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	0.050	9707011
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VOLATILE ORGANICS BY GC/MS (WATER)

Bureau Veritas ID		AGHS15			
Sampling Date		2024/10/18 11:15			
COC Number		C#1017617-01-01			
	UNITS	TRIP BLANK	RDL	MDL	QC Batch
Tetrachloroethylene	ug/L	<0.20	0.20	0.050	9707011
Toluene	ug/L	<0.20	0.20	0.010	9707011
1,1,1-Trichloroethane	ug/L	<0.20	0.20	0.050	9707011
1,1,2-Trichloroethane	ug/L	<0.50	0.50	0.050	9707011
Trichloroethylene	ug/L	<0.20	0.20	0.050	9707011
Trichlorofluoromethane (FREON 11)	ug/L	<0.50	0.50	0.10	9707011
Vinyl Chloride	ug/L	<0.20	0.20	0.050	9707011
p+m-Xylene	ug/L	<0.20	0.20	0.010	9707011
o-Xylene	ug/L	<0.20	0.20	0.010	9707011
Total Xylenes	ug/L	<0.20	0.20	0.010	9707011
F1 (C6-C10)	ug/L	<25	25	20	9707011
F1 (C6-C10) - BTEX	ug/L	<25	25	20	9707011
Surrogate Recovery (%)					
4-Bromofluorobenzene	%	103			9707011
D4-1,2-Dichloroethane	%	102			9707011
D8-Toluene	%	93			9707011
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		AGHS11	AGHS12	AGHS13	AGHS14			
Sampling Date		2024/10/18 13:20	2024/10/18 11:00	2024/10/18	2024/10/18 13:00			
COC Number		C#1017617-01-01	C#1017617-01-01	C#1017617-01-01	C#1017617-01-01			
	UNITS	MW24-06	MW24-08	DUP-1	FIELD BLANK	RDL	MDL	QC Batch
F2-F4 Hydrocarbons								
F2 (C10-C16 Hydrocarbons)	ug/L	<90	<90	<90	<90	90	50	9721111
F3 (C16-C34 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	70	9721111
F4 (C34-C50 Hydrocarbons)	ug/L	<200	<200	<200	<200	200	50	9721111
Reached Baseline at C50	ug/L	Yes	Yes	Yes	Yes			9721111
Surrogate Recovery (%)								
o-Terphenyl	%	101	99	101	101			9721111
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								

Bureau Veritas ID		AGHS15			
Sampling Date		2024/10/18 11:15			
COC Number		C#1017617-01-01			
	UNITS	TRIP BLANK	RDL	MDL	QC Batch
F2-F4 Hydrocarbons					
F2 (C10-C16 Hydrocarbons)	ug/L	<90	90	50	9721111
F3 (C16-C34 Hydrocarbons)	ug/L	<200	200	70	9721111
F4 (C34-C50 Hydrocarbons)	ug/L	<200	200	50	9721111
Reached Baseline at C50	ug/L	Yes			9721111
Surrogate Recovery (%)					
o-Terphenyl	%	103			9721111
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
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GENERAL COMMENTS

Results relate only to the items tested.



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9707011	BG1	Matrix Spike [AGHS11-06]	4-Bromofluorobenzene	2024/10/24		105	%	70 - 130	
			D4-1,2-Dichloroethane	2024/10/24		101	%	70 - 130	
			D8-Toluene	2024/10/24		101	%	70 - 130	
			Acetone (2-Propanone)	2024/10/24		96	%	60 - 140	
			Benzene	2024/10/24		96	%	70 - 130	
			Bromodichloromethane	2024/10/24		95	%	70 - 130	
			Bromoform	2024/10/24		102	%	70 - 130	
			Bromomethane	2024/10/24		81	%	60 - 140	
			Carbon Tetrachloride	2024/10/24		102	%	70 - 130	
			Chlorobenzene	2024/10/24		91	%	70 - 130	
			Chloroform	2024/10/24		94	%	70 - 130	
			Dibromochloromethane	2024/10/24		100	%	70 - 130	
			1,2-Dichlorobenzene	2024/10/24		100	%	70 - 130	
			1,3-Dichlorobenzene	2024/10/24		98	%	70 - 130	
			1,4-Dichlorobenzene	2024/10/24		98	%	70 - 130	
			Dichlorodifluoromethane (FREON 12)	2024/10/24		85	%	60 - 140	
			1,1-Dichloroethane	2024/10/24		90	%	70 - 130	
			1,2-Dichloroethane	2024/10/24		103	%	70 - 130	
			1,1-Dichloroethylene	2024/10/24		93	%	70 - 130	
			cis-1,2-Dichloroethylene	2024/10/24		99	%	70 - 130	
			trans-1,2-Dichloroethylene	2024/10/24		99	%	70 - 130	
			1,2-Dichloropropane	2024/10/24		92	%	70 - 130	
			cis-1,3-Dichloropropene	2024/10/24		90	%	70 - 130	
			trans-1,3-Dichloropropene	2024/10/24		100	%	70 - 130	
			Ethylbenzene	2024/10/24		91	%	70 - 130	
			Ethylene Dibromide	2024/10/24		97	%	70 - 130	
			Hexane	2024/10/24		101	%	70 - 130	
			Methylene Chloride(Dichloromethane)	2024/10/24		95	%	70 - 130	
			Methyl Ethyl Ketone (2-Butanone)	2024/10/24		100	%	60 - 140	
			Methyl Isobutyl Ketone	2024/10/24		96	%	70 - 130	
			Methyl t-butyl ether (MTBE)	2024/10/24		95	%	70 - 130	
			Styrene	2024/10/24		92	%	70 - 130	
			1,1,1,2-Tetrachloroethane	2024/10/24		107	%	70 - 130	
			1,1,2,2-Tetrachloroethane	2024/10/24		89	%	70 - 130	
			Tetrachloroethylene	2024/10/24		99	%	70 - 130	
			Toluene	2024/10/24		94	%	70 - 130	
			1,1,1-Trichloroethane	2024/10/24		93	%	70 - 130	
			1,1,2-Trichloroethane	2024/10/24		98	%	70 - 130	
			Trichloroethylene	2024/10/24		101	%	70 - 130	
			Trichlorofluoromethane (FREON 11)	2024/10/24		92	%	70 - 130	
			Vinyl Chloride	2024/10/24		89	%	70 - 130	
			p+m-Xylene	2024/10/24		91	%	70 - 130	
			o-Xylene	2024/10/24		99	%	70 - 130	
			F1 (C6-C10)	2024/10/24		90	%	60 - 140	
9707011	BG1	Spiked Blank	4-Bromofluorobenzene	2024/10/24		105	%	70 - 130	
			D4-1,2-Dichloroethane	2024/10/24		99	%	70 - 130	
			D8-Toluene	2024/10/24		99	%	70 - 130	
			Acetone (2-Propanone)	2024/10/24		96	%	60 - 140	
			Benzene	2024/10/24		98	%	70 - 130	
			Bromodichloromethane	2024/10/24		95	%	70 - 130	
			Bromoform	2024/10/24		101	%	70 - 130	
			Bromomethane	2024/10/24		82	%	60 - 140	



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Your P.O. #: OTT2947
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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Carbon Tetrachloride	2024/10/24		103	%	70 - 130
				Chlorobenzene	2024/10/24		92	%	70 - 130
				Chloroform	2024/10/24		95	%	70 - 130
				Dibromochloromethane	2024/10/24		98	%	70 - 130
				1,2-Dichlorobenzene	2024/10/24		100	%	70 - 130
				1,3-Dichlorobenzene	2024/10/24		99	%	70 - 130
				1,4-Dichlorobenzene	2024/10/24		100	%	70 - 130
				Dichlorodifluoromethane (FREON 12)	2024/10/24		89	%	60 - 140
				1,1-Dichloroethane	2024/10/24		91	%	70 - 130
				1,2-Dichloroethane	2024/10/24		101	%	70 - 130
				1,1-Dichloroethylene	2024/10/24		95	%	70 - 130
				cis-1,2-Dichloroethylene	2024/10/24		100	%	70 - 130
				trans-1,2-Dichloroethylene	2024/10/24		101	%	70 - 130
				1,2-Dichloropropane	2024/10/24		93	%	70 - 130
				cis-1,3-Dichloropropene	2024/10/24		91	%	70 - 130
				trans-1,3-Dichloropropene	2024/10/24		101	%	70 - 130
				Ethylbenzene	2024/10/24		94	%	70 - 130
				Ethylene Dibromide	2024/10/24		95	%	70 - 130
				Hexane	2024/10/24		107	%	70 - 130
				Methylene Chloride(Dichloromethane)	2024/10/24		95	%	70 - 130
				Methyl Ethyl Ketone (2-Butanone)	2024/10/24		100	%	60 - 140
				Methyl Isobutyl Ketone	2024/10/24		98	%	70 - 130
				Methyl t-butyl ether (MTBE)	2024/10/24		97	%	70 - 130
				Styrene	2024/10/24		96	%	70 - 130
				1,1,1,2-Tetrachloroethane	2024/10/24		105	%	70 - 130
				1,1,2,2-Tetrachloroethane	2024/10/24		87	%	70 - 130
				Tetrachloroethylene	2024/10/24		99	%	70 - 130
				Toluene	2024/10/24		96	%	70 - 130
				1,1,1-Trichloroethane	2024/10/24		95	%	70 - 130
				1,1,2-Trichloroethane	2024/10/24		96	%	70 - 130
				Trichloroethylene	2024/10/24		103	%	70 - 130
				Trichlorofluoromethane (FREON 11)	2024/10/24		93	%	70 - 130
				Vinyl Chloride	2024/10/24		91	%	70 - 130
				p+m-Xylene	2024/10/24		93	%	70 - 130
				o-Xylene	2024/10/24		101	%	70 - 130
				F1 (C6-C10)	2024/10/24		94	%	60 - 140
9707011	BG1	Method Blank		4-Bromofluorobenzene	2024/10/24		103	%	70 - 130
				D4-1,2-Dichloroethane	2024/10/24		100	%	70 - 130
				D8-Toluene	2024/10/24		94	%	70 - 130
				Acetone (2-Propanone)	2024/10/24	<10		ug/L	
				Benzene	2024/10/24	<0.17		ug/L	
				Bromodichloromethane	2024/10/24	<0.50		ug/L	
				Bromoform	2024/10/24	<1.0		ug/L	
				Bromomethane	2024/10/24	<0.50		ug/L	
				Carbon Tetrachloride	2024/10/24	<0.20		ug/L	
				Chlorobenzene	2024/10/24	<0.20		ug/L	
				Chloroform	2024/10/24	<0.20		ug/L	
				Dibromochloromethane	2024/10/24	<0.50		ug/L	
				1,2-Dichlorobenzene	2024/10/24	<0.50		ug/L	
				1,3-Dichlorobenzene	2024/10/24	<0.50		ug/L	
				1,4-Dichlorobenzene	2024/10/24	<0.50		ug/L	
				Dichlorodifluoromethane (FREON 12)	2024/10/24	<1.0		ug/L	



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				1,1-Dichloroethane	2024/10/24	<0.20		ug/L	
				1,2-Dichloroethane	2024/10/24	<0.50		ug/L	
				1,1-Dichloroethylene	2024/10/24	<0.20		ug/L	
				cis-1,2-Dichloroethylene	2024/10/24	<0.50		ug/L	
				trans-1,2-Dichloroethylene	2024/10/24	<0.50		ug/L	
				1,2-Dichloropropane	2024/10/24	<0.20		ug/L	
				cis-1,3-Dichloropropene	2024/10/24	<0.30		ug/L	
				trans-1,3-Dichloropropene	2024/10/24	<0.40		ug/L	
				Ethylbenzene	2024/10/24	<0.20		ug/L	
				Ethylene Dibromide	2024/10/24	<0.20		ug/L	
				Hexane	2024/10/24	<1.0		ug/L	
				Methylene Chloride(Dichloromethane)	2024/10/24	<2.0		ug/L	
				Methyl Ethyl Ketone (2-Butanone)	2024/10/24	<10		ug/L	
				Methyl Isobutyl Ketone	2024/10/24	<5.0		ug/L	
				Methyl t-butyl ether (MTBE)	2024/10/24	<0.50		ug/L	
				Styrene	2024/10/24	<0.50		ug/L	
				1,1,1,2-Tetrachloroethane	2024/10/24	<0.50		ug/L	
				1,1,2,2-Tetrachloroethane	2024/10/24	<0.50		ug/L	
				Tetrachloroethylene	2024/10/24	<0.20		ug/L	
				Toluene	2024/10/24	<0.20		ug/L	
				1,1,1-Trichloroethane	2024/10/24	<0.20		ug/L	
				1,1,2-Trichloroethane	2024/10/24	<0.50		ug/L	
				Trichloroethylene	2024/10/24	<0.20		ug/L	
				Trichlorofluoromethane (FREON 11)	2024/10/24	<0.50		ug/L	
				Vinyl Chloride	2024/10/24	<0.20		ug/L	
				p+m-Xylene	2024/10/24	<0.20		ug/L	
				o-Xylene	2024/10/24	<0.20		ug/L	
				Total Xylenes	2024/10/24	<0.20		ug/L	
				F1 (C6-C10)	2024/10/24	<25		ug/L	
				F1 (C6-C10) - BTEX	2024/10/24	<25		ug/L	
9707011	BG1	RPD [AGHS11-06]		Acetone (2-Propanone)	2024/10/24	NC		%	30
				Benzene	2024/10/24	NC		%	30
				Bromodichloromethane	2024/10/24	NC		%	30
				Bromoform	2024/10/24	NC		%	30
				Bromomethane	2024/10/24	NC		%	30
				Carbon Tetrachloride	2024/10/24	NC		%	30
				Chlorobenzene	2024/10/24	NC		%	30
				Chloroform	2024/10/24	NC		%	30
				Dibromochloromethane	2024/10/24	NC		%	30
				1,2-Dichlorobenzene	2024/10/24	NC		%	30
				1,3-Dichlorobenzene	2024/10/24	NC		%	30
				1,4-Dichlorobenzene	2024/10/24	NC		%	30
				Dichlorodifluoromethane (FREON 12)	2024/10/24	NC		%	30
				1,1-Dichloroethane	2024/10/24	NC		%	30
				1,2-Dichloroethane	2024/10/24	NC		%	30
				1,1-Dichloroethylene	2024/10/24	NC		%	30
				cis-1,2-Dichloroethylene	2024/10/24	NC		%	30
				trans-1,2-Dichloroethylene	2024/10/24	NC		%	30
				1,2-Dichloropropane	2024/10/24	NC		%	30
				cis-1,3-Dichloropropene	2024/10/24	NC		%	30
				trans-1,3-Dichloropropene	2024/10/24	NC		%	30
				Ethylbenzene	2024/10/24	NC		%	30



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC	Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
				Ethylene Dibromide	2024/10/24	NC		%	30
				Hexane	2024/10/24	NC		%	30
				Methylene Chloride(Dichloromethane)	2024/10/24	NC		%	30
				Methyl Ethyl Ketone (2-Butanone)	2024/10/24	NC		%	30
				Methyl Isobutyl Ketone	2024/10/24	NC		%	30
				Methyl t-butyl ether (MTBE)	2024/10/24	NC		%	30
				Styrene	2024/10/24	NC		%	30
				1,1,1,2-Tetrachloroethane	2024/10/24	NC		%	30
				1,1,2,2-Tetrachloroethane	2024/10/24	NC		%	30
				Tetrachloroethylene	2024/10/24	NC		%	30
				Toluene	2024/10/24	NC		%	30
				1,1,1-Trichloroethane	2024/10/24	NC		%	30
				1,1,2-Trichloroethane	2024/10/24	NC		%	30
				Trichloroethylene	2024/10/24	NC		%	30
				Trichlorofluoromethane (FREON 11)	2024/10/24	NC		%	30
				Vinyl Chloride	2024/10/24	NC		%	30
				p+m-Xylene	2024/10/24	NC		%	30
				o-Xylene	2024/10/24	NC		%	30
				Total Xylenes	2024/10/24	NC		%	30
				F1 (C6-C10)	2024/10/24	NC		%	30
				F1 (C6-C10) - BTEX	2024/10/24	NC		%	30
9715987	IHP	Matrix Spike		Dissolved Antimony (Sb)	2024/10/23		101	%	80 - 120
				Dissolved Arsenic (As)	2024/10/23		98	%	80 - 120
				Dissolved Barium (Ba)	2024/10/23		98	%	80 - 120
				Dissolved Beryllium (Be)	2024/10/23		102	%	80 - 120
				Dissolved Boron (B)	2024/10/23		99	%	80 - 120
				Dissolved Cadmium (Cd)	2024/10/23		96	%	80 - 120
				Dissolved Chromium (Cr)	2024/10/23		100	%	80 - 120
				Dissolved Cobalt (Co)	2024/10/23		97	%	80 - 120
				Dissolved Copper (Cu)	2024/10/23		97	%	80 - 120
				Dissolved Lead (Pb)	2024/10/23		95	%	80 - 120
				Dissolved Molybdenum (Mo)	2024/10/23		102	%	80 - 120
				Dissolved Nickel (Ni)	2024/10/23		92	%	80 - 120
				Dissolved Selenium (Se)	2024/10/23		99	%	80 - 120
				Dissolved Silver (Ag)	2024/10/23		90	%	80 - 120
				Dissolved Sodium (Na)	2024/10/23		90	%	80 - 120
				Dissolved Thallium (Tl)	2024/10/23		98	%	80 - 120
				Dissolved Uranium (U)	2024/10/23		98	%	80 - 120
				Dissolved Vanadium (V)	2024/10/23		99	%	80 - 120
				Dissolved Zinc (Zn)	2024/10/23		95	%	80 - 120
9715987	IHP	Spiked Blank		Dissolved Antimony (Sb)	2024/10/23		98	%	80 - 120
				Dissolved Arsenic (As)	2024/10/23		97	%	80 - 120
				Dissolved Barium (Ba)	2024/10/23		97	%	80 - 120
				Dissolved Beryllium (Be)	2024/10/23		97	%	80 - 120
				Dissolved Boron (B)	2024/10/23		94	%	80 - 120
				Dissolved Cadmium (Cd)	2024/10/23		94	%	80 - 120
				Dissolved Chromium (Cr)	2024/10/23		102	%	80 - 120
				Dissolved Cobalt (Co)	2024/10/23		99	%	80 - 120
				Dissolved Copper (Cu)	2024/10/23		99	%	80 - 120
				Dissolved Lead (Pb)	2024/10/23		93	%	80 - 120
				Dissolved Molybdenum (Mo)	2024/10/23		97	%	80 - 120
				Dissolved Nickel (Ni)	2024/10/23		94	%	80 - 120



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9715987	IHP	Method Blank	Dissolved Selenium (Se)	2024/10/23		97	%	80 - 120
			Dissolved Silver (Ag)	2024/10/23		90	%	80 - 120
			Dissolved Sodium (Na)	2024/10/23		96	%	80 - 120
			Dissolved Thallium (Tl)	2024/10/23		94	%	80 - 120
			Dissolved Uranium (U)	2024/10/23		95	%	80 - 120
			Dissolved Vanadium (V)	2024/10/23		95	%	80 - 120
			Dissolved Zinc (Zn)	2024/10/23		94	%	80 - 120
			Dissolved Antimony (Sb)	2024/10/23	<0.50		ug/L	
			Dissolved Arsenic (As)	2024/10/23	<1.0		ug/L	
			Dissolved Barium (Ba)	2024/10/23	<2.0		ug/L	
			Dissolved Beryllium (Be)	2024/10/23	<0.40		ug/L	
			Dissolved Boron (B)	2024/10/23	<10		ug/L	
			Dissolved Cadmium (Cd)	2024/10/23	<0.090		ug/L	
			Dissolved Chromium (Cr)	2024/10/23	<5.0		ug/L	
			Dissolved Cobalt (Co)	2024/10/23	<0.50		ug/L	
			Dissolved Copper (Cu)	2024/10/23	<0.90		ug/L	
			Dissolved Lead (Pb)	2024/10/23	<0.50		ug/L	
			Dissolved Molybdenum (Mo)	2024/10/23	<0.50		ug/L	
			Dissolved Nickel (Ni)	2024/10/23	<1.0		ug/L	
			Dissolved Selenium (Se)	2024/10/23	<2.0		ug/L	
			Dissolved Silver (Ag)	2024/10/23	<0.090		ug/L	
			Dissolved Sodium (Na)	2024/10/23	<100		ug/L	
			Dissolved Thallium (Tl)	2024/10/23	<0.050		ug/L	
			Dissolved Uranium (U)	2024/10/23	<0.10		ug/L	
			Dissolved Vanadium (V)	2024/10/23	<0.50		ug/L	
			Dissolved Zinc (Zn)	2024/10/23	<5.0		ug/L	
9715987	IHP	RPD	Dissolved Antimony (Sb)	2024/10/23	NC		%	20
			Dissolved Arsenic (As)	2024/10/23	NC		%	20
			Dissolved Barium (Ba)	2024/10/23	1.1		%	20
			Dissolved Beryllium (Be)	2024/10/23	NC		%	20
			Dissolved Boron (B)	2024/10/23	6.0		%	20
			Dissolved Cadmium (Cd)	2024/10/23	NC		%	20
			Dissolved Chromium (Cr)	2024/10/23	NC		%	20
			Dissolved Cobalt (Co)	2024/10/23	NC		%	20
			Dissolved Copper (Cu)	2024/10/23	4.8		%	20
			Dissolved Lead (Pb)	2024/10/23	NC		%	20
			Dissolved Molybdenum (Mo)	2024/10/23	NC		%	20
			Dissolved Nickel (Ni)	2024/10/23	NC		%	20
			Dissolved Selenium (Se)	2024/10/23	NC		%	20
			Dissolved Silver (Ag)	2024/10/23	NC		%	20
			Dissolved Sodium (Na)	2024/10/23	0.75		%	20
			Dissolved Thallium (Tl)	2024/10/23	NC		%	20
			Dissolved Uranium (U)	2024/10/23	5.1		%	20
			Dissolved Vanadium (V)	2024/10/23	NC		%	20
			Dissolved Zinc (Zn)	2024/10/23	NC		%	20
9716083	DAN	Matrix Spike [AGHS11-07]	Propylene Glycol	2024/10/22		105	%	60 - 140
			Ethylene Glycol	2024/10/22		98	%	60 - 140
			Diethylene Glycol	2024/10/22		91	%	60 - 140
9716083	DAN	Spiked Blank	Propylene Glycol	2024/10/22		107	%	60 - 140
			Ethylene Glycol	2024/10/22		101	%	60 - 140
			Diethylene Glycol	2024/10/22		90	%	60 - 140
9716083	DAN	Method Blank	Propylene Glycol	2024/10/22	<5		mg/L	



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QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9716083	DAN	RPD [AGHS11-07]	Ethylene Glycol	2024/10/22	<5		mg/L	
			Diethylene Glycol	2024/10/22	<5		mg/L	
			Total Glycol	2024/10/22	<5		mg/L	
			Propylene Glycol	2024/10/22	NC		%	40
			Ethylene Glycol	2024/10/22	NC		%	40
			Diethylene Glycol	2024/10/22	NC		%	40
			Total Glycol	2024/10/22	NC		%	40
9718601	HK1	Matrix Spike	Chromium (VI)	2024/10/23		96	%	80 - 120
9718601	HK1	Spiked Blank	Chromium (VI)	2024/10/23		102	%	80 - 120
9718601	HK1	Method Blank	Chromium (VI)	2024/10/23	<0.50		ug/L	
9718601	HK1	RPD	Chromium (VI)	2024/10/23	NC		%	20
9719252	GR1	Matrix Spike	Mercury (Hg)	2024/10/23		96	%	75 - 125
9719252	GR1	Spiked Blank	Mercury (Hg)	2024/10/23		96	%	80 - 120
9719252	GR1	Method Blank	Mercury (Hg)	2024/10/23	<0.10		ug/L	
9719252	GR1	RPD	Mercury (Hg)	2024/10/23	NC		%	20
9719537	ADB	Matrix Spike	Dissolved Chloride (Cl-)	2024/10/24		NC	%	80 - 120
9719537	ADB	Spiked Blank	Dissolved Chloride (Cl-)	2024/10/24		98	%	80 - 120
9719537	ADB	Method Blank	Dissolved Chloride (Cl-)	2024/10/24	<1.0		mg/L	
9719537	ADB	RPD	Dissolved Chloride (Cl-)	2024/10/24	2.0		%	20
9720591	MJ1	Matrix Spike [AGHS12-04]	Dissolved Chloride (Cl-)	2024/10/25		NC	%	80 - 120
9720591	MJ1	Spiked Blank	Dissolved Chloride (Cl-)	2024/10/25		104	%	80 - 120
9720591	MJ1	Method Blank	Dissolved Chloride (Cl-)	2024/10/25	<1.0		mg/L	
9720591	MJ1	RPD [AGHS12-04]	Dissolved Chloride (Cl-)	2024/10/25	1.4		%	20
9721111	MSZ	Matrix Spike [AGHS11-01]	o-Terphenyl	2024/10/24		104	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/24		100	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2024/10/24		104	%	60 - 140
			F4 (C34-C50 Hydrocarbons)	2024/10/24		96	%	60 - 140
			o-Terphenyl	2024/10/24		106	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/24		100	%	60 - 140
			F3 (C16-C34 Hydrocarbons)	2024/10/24		104	%	60 - 140
9721111	MSZ	Method Blank	F4 (C34-C50 Hydrocarbons)	2024/10/24		97	%	60 - 140
			o-Terphenyl	2024/10/24		101	%	60 - 140
			F2 (C10-C16 Hydrocarbons)	2024/10/24	<90		ug/L	
			F3 (C16-C34 Hydrocarbons)	2024/10/24	<200		ug/L	
			F4 (C34-C50 Hydrocarbons)	2024/10/24	<200		ug/L	
			F2 (C10-C16 Hydrocarbons)	2024/10/24	NC		%	30
			F3 (C16-C34 Hydrocarbons)	2024/10/24	NC		%	30
9721111	MSZ	RPD [AGHS12-01]	F4 (C34-C50 Hydrocarbons)	2024/10/24	NC		%	30
			D10-Anthracene	2024/10/24		113	%	50 - 130
			D14-Terphenyl (F5)	2024/10/24		114	%	50 - 130
			D8-Acenaphthylene	2024/10/24		107	%	50 - 130
			Acenaphthene	2024/10/24		114	%	50 - 130
			Acenaphthylene	2024/10/24		116	%	50 - 130
			Anthracene	2024/10/24		117	%	50 - 130
9721118	JP5	Matrix Spike [AGHS13-01]	Benzo(a)anthracene	2024/10/24		125	%	50 - 130
			Benzo(a)pyrene	2024/10/24		124	%	50 - 130
			Benzo(b/j)fluoranthene	2024/10/24		120	%	50 - 130
			Benzo(g,h,i)perylene	2024/10/24		122	%	50 - 130
			Benzo(k)fluoranthene	2024/10/24		115	%	50 - 130
			Chrysene	2024/10/24		112	%	50 - 130
			Dibenzo(a,h)anthracene	2024/10/24		123	%	50 - 130
			Fluoranthene	2024/10/24		131 (1)	%	50 - 130



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9721118	JP5	Spiked Blank	Fluorene	2024/10/24		120	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2024/10/24		126	%	50 - 130
			1-Methylnaphthalene	2024/10/24		99	%	50 - 130
			2-Methylnaphthalene	2024/10/24		98	%	50 - 130
			Naphthalene	2024/10/24		101	%	50 - 130
			Phenanthrene	2024/10/24		118	%	50 - 130
			Pyrene	2024/10/24		128	%	50 - 130
			D10-Anthracene	2024/10/24		107	%	50 - 130
			D14-Terphenyl (FS)	2024/10/24		110	%	50 - 130
			D8-Acenaphthylene	2024/10/24		99	%	50 - 130
			Acenaphthene	2024/10/24		100	%	50 - 130
			Acenaphthylene	2024/10/24		101	%	50 - 130
			Anthracene	2024/10/24		105	%	50 - 130
			Benzo(a)anthracene	2024/10/24		111	%	50 - 130
			Benzo(a)pyrene	2024/10/24		111	%	50 - 130
			Benzo(b/j)fluoranthene	2024/10/24		108	%	50 - 130
			Benzo(g,h,i)perylene	2024/10/24		111	%	50 - 130
			Benzo(k)fluoranthene	2024/10/24		104	%	50 - 130
			Chrysene	2024/10/24		101	%	50 - 130
			Dibenzo(a,h)anthracene	2024/10/24		112	%	50 - 130
			Fluoranthene	2024/10/24		117	%	50 - 130
			Fluorene	2024/10/24		105	%	50 - 130
			Indeno(1,2,3-cd)pyrene	2024/10/24		114	%	50 - 130
			1-Methylnaphthalene	2024/10/24		87	%	50 - 130
			2-Methylnaphthalene	2024/10/24		86	%	50 - 130
			Naphthalene	2024/10/24		89	%	50 - 130
			Phenanthrene	2024/10/24		106	%	50 - 130
			Pyrene	2024/10/24		113	%	50 - 130
9721118	JP5	Method Blank	D10-Anthracene	2024/10/24		113	%	50 - 130
			D14-Terphenyl (FS)	2024/10/24		117	%	50 - 130
			D8-Acenaphthylene	2024/10/24		107	%	50 - 130
			Acenaphthene	2024/10/24	<0.050		ug/L	
			Acenaphthylene	2024/10/24	<0.050		ug/L	
			Anthracene	2024/10/24	<0.050		ug/L	
			Benzo(a)anthracene	2024/10/24	<0.050		ug/L	
			Benzo(a)pyrene	2024/10/24	<0.0090		ug/L	
			Benzo(b/j)fluoranthene	2024/10/24	<0.050		ug/L	
			Benzo(g,h,i)perylene	2024/10/24	<0.050		ug/L	
			Benzo(k)fluoranthene	2024/10/24	<0.050		ug/L	
			Chrysene	2024/10/24	<0.050		ug/L	
			Dibenzo(a,h)anthracene	2024/10/24	<0.050		ug/L	
			Fluoranthene	2024/10/24	<0.050		ug/L	
			Fluorene	2024/10/24	<0.050		ug/L	
			Indeno(1,2,3-cd)pyrene	2024/10/24	<0.050		ug/L	
			1-Methylnaphthalene	2024/10/24	<0.050		ug/L	
			2-Methylnaphthalene	2024/10/24	<0.050		ug/L	
			Naphthalene	2024/10/24	<0.050		ug/L	
			Phenanthrene	2024/10/24	<0.030		ug/L	
			Pyrene	2024/10/24	<0.050		ug/L	
9721118	JP5	RPD [AGHS12-01]	Acenaphthene	2024/10/24	NC		%	30
			Acenaphthylene	2024/10/24	NC		%	30
			Anthracene	2024/10/24	NC		%	30



QUALITY ASSURANCE REPORT(CONT'D)

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
			Benzo(a)anthracene	2024/10/24	NC		%	30
			Benzo(a)pyrene	2024/10/24	NC		%	30
			Benzo(b/j)fluoranthene	2024/10/24	NC		%	30
			Benzo(g,h,i)perylene	2024/10/24	NC		%	30
			Benzo(k)fluoranthene	2024/10/24	NC		%	30
			Chrysene	2024/10/24	NC		%	30
			Dibenzo(a,h)anthracene	2024/10/24	NC		%	30
			Fluoranthene	2024/10/24	NC		%	30
			Fluorene	2024/10/24	NC		%	30
			Indeno(1,2,3-cd)pyrene	2024/10/24	NC		%	30
			1-Methylnaphthalene	2024/10/24	NC		%	30
			2-Methylnaphthalene	2024/10/24	NC		%	30
			Naphthalene	2024/10/24	2.2		%	30
			Phenanthrene	2024/10/24	NC		%	30
			Pyrene	2024/10/24	NC		%	30

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.



Bureau Veritas Job #: C4W8659
Report Date: 2024/10/25

SLR Consulting (Canada) Ltd.
Client Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE OTTAWA
Your P.O. #: OTT2947
Sampler Initials: MS

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by:

Cristina Carriere, Senior Scientific Specialist

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Rodney Major, General Manager responsible for Ontario Environmental laboratory operations.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W8659
Job Received: 2024/10/18
Final Report Due: 2024/10/28
Disposal Date: 2024/11/17

Invoice Information

Attn: Accounts Payable
SLR Consulting (Canada) Ltd.
#200 – 887 Great Northern Way
Vancouver, BC, V5T 4T5
Email to:
accountspayableca@slrconsulting.com
adang@slrconsulting.com

Report Information

Attn: Matt Williamson
SLR Consulting (Canada) Ltd.
#200 – 887 Great Northern Way
Vancouver, BC, V5T 4T5
Email to:
mwilliamson@slrconsulting.com

Project Information

Quote #: C41044
PO/AFE#: OTT2947
Project #: 216.030059.00002
Site Location: SUNCOR 4000 RIVERSIDE DRIVE
OTTAWA
Site #: 4000 Riverside Drive
Sampled By: MS
Cost Object: C41044_V2

Analytical Summary

A: Due On 2024/10/28

Lab ID	Client Sample ID	Sampling Date/Time	Matrix	# Cont.	O.Reg 153 Metals & Inorganics Pkg (Wtr)	O.Reg 153 PAHs	O.Reg 153 VOCs by HS & F1-F4	Glycols in Water by GC/FID	Set Number
COC# C#1017617-01-01									
AGHS11	MW24-06	2024/10/18 13:20	GW	10	A	A	A	A	1
AGHS12	MW24-08	2024/10/18 11:00	GW	10	A	A	A	A	1
AGHS13	DUP-1	2024/10/18	GW	10	A	A	A	A	1
AGHS14	FIELD BLANK	2024/10/18 13:00	GW	10	A	A	A	A	1
AGHS15	TRIP BLANK	2024/10/18 11:15	GW	4			A		2

Include Criteria on CofA: No

Sample Inspection Observations & Comments

of Samples Received: 5
Details: Sample(s) received in good condition.
Average Temperature: Package 1: 6.7 °C

Additional Notes

- Unless special storage arrangements are made, all samples will be disposed 30 days after receipt. Additional fees may be applied for extended storage.
- Additional fees may be applied for the disposal of hazardous samples.

The contents of this report are subject to change. For up to date information, please refer to the Customer Portal.



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W8659

Job Received: 2024/10/18

Final Report Due: 2024/10/28

Disposal Date: 2024/11/17

Sample Set Listing

Set 1 (4 Samples)	Set 2 (1 Sample)
MW24-06 MW24-08 DUP-1 FIELD BLANK	TRIP BLANK

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2
O.Reg 153 Metals & Inorganics Pkg (Wtr)	Dissolved Chloride (Cl-)	1	mg/L	X	
	Chromium (VI)	0.5	ug/L	X	
	Dissolved Antimony (Sb)	0.5	ug/L	X	
	Dissolved Arsenic (As)	1	ug/L	X	
	Dissolved Barium (Ba)	2	ug/L	X	
	Dissolved Beryllium (Be)	0.4	ug/L	X	
	Dissolved Boron (B)	10	ug/L	X	
	Dissolved Cadmium (Cd)	0.09	ug/L	X	
	Dissolved Chromium (Cr)	5	ug/L	X	
	Dissolved Cobalt (Co)	0.5	ug/L	X	
	Dissolved Copper (Cu)	0.9	ug/L	X	
	Dissolved Lead (Pb)	0.5	ug/L	X	
	Dissolved Molybdenum (Mo)	0.5	ug/L	X	
	Dissolved Nickel (Ni)	1	ug/L	X	
	Dissolved Selenium (Se)	2	ug/L	X	
	Dissolved Silver (Ag)	0.09	ug/L	X	
	Dissolved Sodium (Na)	100	ug/L	X	
	Dissolved Thallium (Tl)	0.05	ug/L	X	
	Dissolved Uranium (U)	0.1	ug/L	X	
	Dissolved Vanadium (V)	0.5	ug/L	X	
O.Reg 153 PAHs	Dissolved Zinc (Zn)	5	ug/L	X	
	Mercury (Hg)	0.1	ug/L	X	
	Methylnaphthalene, 2-(1-)	0.071	ug/L	X	
	Acenaphthene	0.05	ug/L	X	
	Acenaphthylene	0.05	ug/L	X	
	Anthracene	0.05	ug/L	X	
	Benzo(a)anthracene	0.05	ug/L	X	
	Benzo(a)pyrene	0.009	ug/L	X	
	Benzo(b,j)fluoranthene	0.05	ug/L	X	
	Benzo(g,h,i)perylene	0.05	ug/L	X	
	Benzo(k)fluoranthene	0.05	ug/L	X	
	Chrysene	0.05	ug/L	X	
	Dibenzo(a,h)anthracene	0.05	ug/L	X	



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W8659

Job Received: 2024/10/18

Final Report Due: 2024/10/28

Disposal Date: 2024/11/17

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2
O.Reg 153 PAHs	Fluoranthene	0.05	ug/L	X	
	Fluorene	0.05	ug/L	X	
	Indeno(1,2,3-cd)pyrene	0.05	ug/L	X	
	1-Methylnaphthalene	0.05	ug/L	X	
	2-Methylnaphthalene	0.05	ug/L	X	
	Naphthalene	0.05	ug/L	X	
	Phenanthrene	0.03	ug/L	X	
	Pyrene	0.05	ug/L	X	
O.Reg 153 VOCs by HS & F1-F4	1,3-Dichloropropene (cis+trans)	0.28	ug/L	X	X
	F2 (C10-C16 Hydrocarbons)	90	ug/L	X	X
	F3 (C16-C34 Hydrocarbons)	200	ug/L	X	X
	F4 (C34-C50 Hydrocarbons)	200	ug/L	X	X
	Reached Baseline at C50	N/A	ug/L	X	X
	Acetone (2-Propanone)	10	ug/L	X	X
	Benzene	0.17	ug/L	X	X
	Bromodichloromethane	0.5	ug/L	X	X
	Bromoform	1	ug/L	X	X
	Bromomethane	0.5	ug/L	X	X
	Carbon Tetrachloride	0.2	ug/L	X	X
	Chlorobenzene	0.2	ug/L	X	X
	Chloroform	0.2	ug/L	X	X
	Dibromochloromethane	0.5	ug/L	X	X
	1,2-Dichlorobenzene	0.5	ug/L	X	X
	1,3-Dichlorobenzene	0.5	ug/L	X	X
	1,4-Dichlorobenzene	0.5	ug/L	X	X
	Dichlorodifluoromethane (FREON 12)	1	ug/L	X	X
	1,1-Dichloroethane	0.2	ug/L	X	X
	1,2-Dichloroethane	0.5	ug/L	X	X
	1,1-Dichloroethylene	0.2	ug/L	X	X
	cis-1,2-Dichloroethylene	0.5	ug/L	X	X
	trans-1,2-Dichloroethylene	0.5	ug/L	X	X
	1,2-Dichloropropane	0.2	ug/L	X	X
	cis-1,3-Dichloropropene	0.3	ug/L	X	X
	trans-1,3-Dichloropropene	0.4	ug/L	X	X
	Ethylbenzene	0.2	ug/L	X	X
	Ethylene Dibromide	0.2	ug/L	X	X
	Hexane	1	ug/L	X	X
	Methylene Chloride(Dichloromethane)	2	ug/L	X	X
	Methyl Ethyl Ketone (2-Butanone)	10	ug/L	X	X



Confirmation of Sample Receipt

Bureau Veritas Job Number: C4W8659

Job Received: 2024/10/18

Final Report Due: 2024/10/28

Disposal Date: 2024/11/17

Parameter Summary

Package/Test	Parameter	RDL	Unit	Set 1	Set 2
O.Reg 153 VOCs by HS & F1-F4	Methyl Isobutyl Ketone	5	ug/L	X	X
	Methyl t-butyl ether (MTBE)	0.5	ug/L	X	X
	Styrene	0.5	ug/L	X	X
	1,1,1,2-Tetrachloroethane	0.5	ug/L	X	X
	1,1,2,2-Tetrachloroethane	0.5	ug/L	X	X
	Tetrachloroethylene	0.2	ug/L	X	X
	Toluene	0.2	ug/L	X	X
	1,1,1-Trichloroethane	0.2	ug/L	X	X
	1,1,2-Trichloroethane	0.5	ug/L	X	X
	Trichloroethylene	0.2	ug/L	X	X
	Trichlorofluoromethane (FREON 11)	0.5	ug/L	X	X
	Vinyl Chloride	0.2	ug/L	X	X
	p+m-Xylene	0.2	ug/L	X	X
	o-Xylene	0.2	ug/L	X	X
	Total Xylenes	0.2	ug/L	X	X
	F1 (C6-C10)	25	ug/L	X	X
	F1 (C6-C10) - BTEX	25	ug/L	X	X
	VOCPLUS Required?	N/A	ug/L	X	X
Glycols in Water by GC/FID	Propylene Glycol	5	mg/L	X	
	Ethylene Glycol	5	mg/L	X	
	Diethylene Glycol	5	mg/L	X	
	Total Glycol	5	mg/L	X	

**RDLs are subject to change based on interferences present at the time of analysis.*

C4W8659
2024/10/18 15:45

Bureau Veritas
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel: (905) 817-5700 Toll-free 800-563-6266 Fax: (905) 817-5777 www.bvna.com

CH

Page 1 of 1



NONT-2024-10-4715

Order #:

1017617

Project Manager:

Keshani Vigh

INVOICE TO:
Company Name: #39437 SLR Consulting (Canada) Ltd.
Attention: Accounts Payable
Address: #200 - 887 Great Northern Way
Vancouver BC V5T 4T5
Tel: (604) 738-2500 Fax: (604) 738-2542
Email: accounts payable@slrconsulting.com; adang@slrcons

REPORT TO:
Company Name: SLR Consulting (Canada) Ltd.
Attention: Matt Williamson
Address: 100 Stone Road West, Suite 201
Guelph, ON N4G 5L3
Tel: 226-766-8088 Fax:
Email: mwilliamson@slrconsulting.com

PROJECT INFORMATION:
Quotation #: C41044
P.O. #: C4W2258235 OTT 2947
Project: 216.030059.00002
Project Name: Sunco 4000 Riverside Drive Ottawa
Site #: 4000 Riverside Drive
Sampled By: MS/EJ

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BUREAU VERITAS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☒ Ind/Comm ☒ Coarse
☒ Table 3 ☐ Agri/Other ☐ For RSC
☐ Table
Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA ☐ Municipality
☐ PWO ☐ Reg 405 Table
☐ Other

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ☒

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix
1 N/A	MW24-06	2024/10/18	13:20	GW
2	MW24-08	2024/10/18	11:00	GW
3	Dup-1	2024/10/18	-	GW
4				
5				
6	FIELD BLANK	2024/10/18	13:00	Water
7	TRIP BLANK	2024/10/18	11:15	Water
8				
9				
10				

Field Filtered (please circle)

Metals (Hg, Cr, V)

0 Reg 153 Metals & Inorganics Pkg (no cyanide)

Cycle in Water by GC/MS

0 Reg 153 VOCs by MS & F+G

0 Reg 153 PAHs

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Regular (Standard) TAT:

(will be applied if Rush TAT is not specified)

Standard TAT = 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

Date Required: Time Required:

Rush Confirmation Number: (call lab for #)

of Bottles

Comments

* RELINQUISHED BY: (Signature/Print) Date: (YY/MM/DD) Time RECEIVED BY: (Signature/Print) Date: (YY/MM/DD) Time
Melanie McElroy / Melanie St Cyr 24/10/18 13:50 Amaniela Saeed / Amaniela Saeed 2024/10/18 15:45
CNE SUGAR SKIVAN 2024/10/19 08:28

Jars used and not submitted

Laboratory Use Only

Time Sensitive

Temperature (°C) on Receipt

Custody Seal

Present

Intact

Yes

No

White: Bureau Veritas Yellow: Client

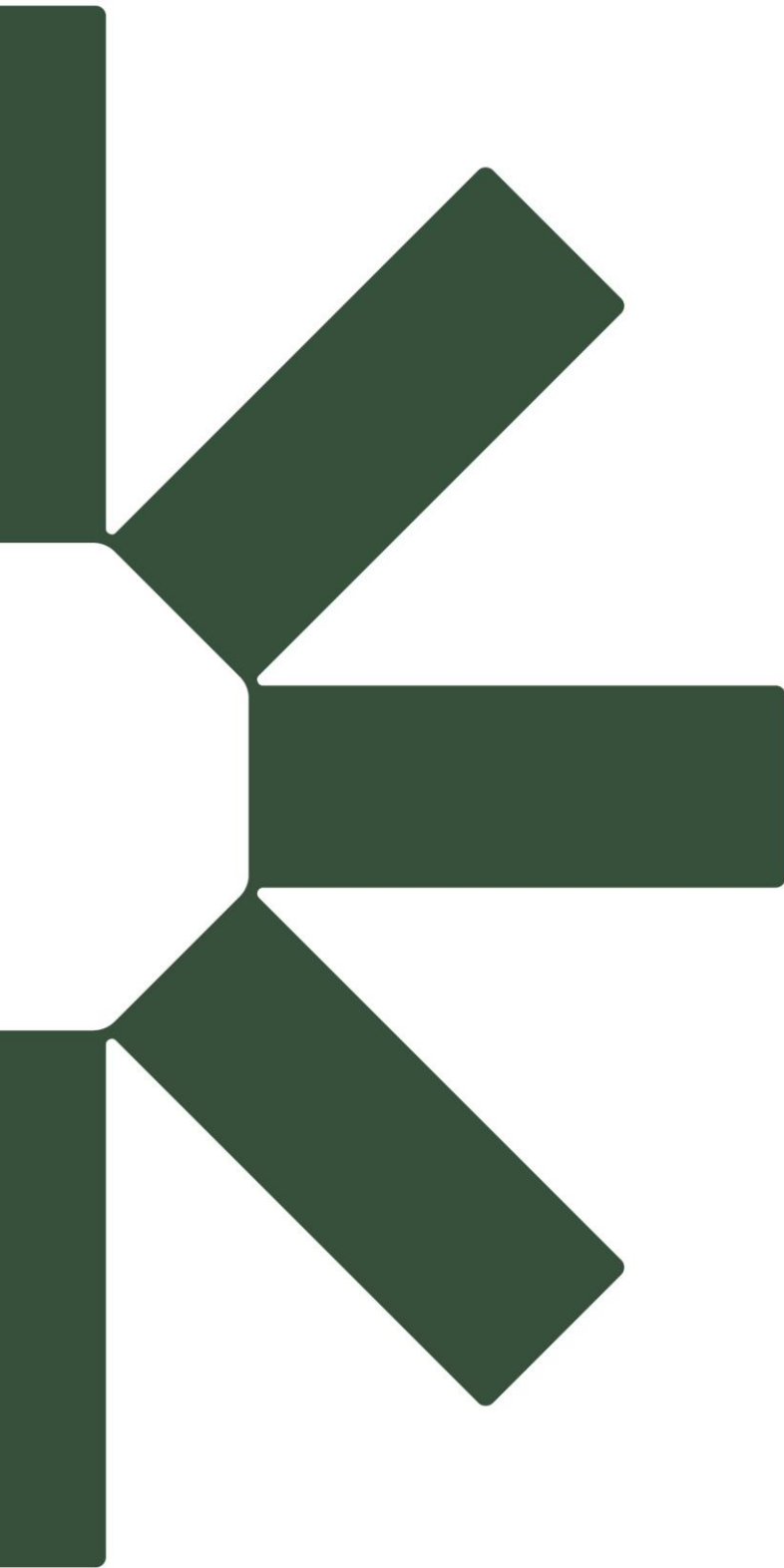
* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

Custody Seal Present Intact
Cooling Media Yes No



Making Sustainability Happen