



SOIL MANAGEMENT PLAN DUFFERIN TRANSFER STATION, 35 VANLEY CRESCENT, NORTH YORK, ONTARIO

Submitted to:

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2024 Soil Quality Screening Memo

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APPENDIX D

Site-Specific Fill Importation Form

APPENDIX E

Limitations

List of Acronyms

AAQC	Ambient Air Quality Criteria
APEC	Areas of Potential Environmental Concern
COPCs	Contaminants of Potential Concern
COV	Combustible Organic Vapours
EC	Electrical Conductivity
ESQS	Excess Soil Quality Standards
HASP	Health and Safety Plan
mBGS	Metres Below Ground Surface
MECP	Ministry of Environment, Conservation and Parks
MNRF	Ministry of Natural Resources
MOL	Ministry of Labour
OHSA	Ontario Health and Safety Act
PAH	Polycyclic Aromatic Hydrocarbons
PCB	Polychlorinated Biphenyls
PHC	Petroleum Hydrocarbons
PPE	Personal Protective Equipment
ppm	Parts Per Million
PWQO	Provincial Water Quality Objectives
QP	Qualified Person
QP-C	Qualified Person – C - Contractor
QP-S	Qualified Person – S – Fill Source Site
QP-PL	Qualified Person – PL- Project Leader
RMM	Risk Management Measure
RFP	Request for Proposal
SAR	Sodium Absorption Ratio
SCS	Site Condition Standards
SMP	Soil Management Plan
TCLP	Toxicity Leachate Characteristic Procedure
TOV	Total organic vapour
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

1.1 Project Description

WSP Canada Inc. (WSP) was retained by City of Toronto (the “City”) to prepare a Soil Management Plan (SMP) to support the management of imported fill and removal of excess soil during construction for the future pavement rehabilitation at the Dufferin Waste Transfer Station (“DWTS”) at 35 Vanley Crescent, in North York, Ontario (hereafter referred to as “the Project Area”). A Site Plan is presented in Figure 1.

1.2 Purpose and Requirements

As per the the City’s Request for Quotation (RFQ) entitled SW-C06-004-23 – DU Paving and DUY Material Storage at the DTS in Toronto, the SMP is required to assist the Contractor in informing soil management planning during the future pavement rehabilitation and construction works at the Project Area.

1.3 Plan Objectives

This SMP outlines how the excavation contractor should address the management of soil including contaminated soil, imported soil, and excavated material and excess soil generated from the Project Area.

The SMP will also address the handling, transportation, testing, disposal and/or ultimate disposition of excavated material generated as part of the pavement rehabilitation and construction works. This preliminary SMP provides the over-arching soil management strategy, in terms of sustainable principles and compliance with regulatory requirements and best practices.

Those actively engaged in any earth works-related construction-activities will be responsible for implementation of the preliminary SMP.

The General Contractor (or “Contractor”), and their applicable subcontractors, engaged by the City of Toronto to undertake the future pavement rehabilitation and construction works will be responsible for the on-site implementation of the SMP during the construction period, which should be overseen by a Qualified Person Contractor (QP-C), as defined under Part II, Section 5 of Ontario Regulation 153/04 Records of Site Condition - Part XV.1 of the Act (O.Reg.153/04), that is retained by the Contractor.

The SMP shall be updated as required and maintained as a working document by the Construction Manager and QP-C, as required in consultation with the Consultant’s QP, to maintain compliance with O.Reg.406/19. As such, a copy of the SMP shall be provided to the relevant Contractors engaged to perform earthworks at the Project Area.

The objectives of the SMP are as follows:

- Ensure that contaminated soil at the Project Area is managed in compliance with applicable regulations.
- Provide a process to manage contaminated soil, including any excess soil that may require removal from the Project Area.
- Provide a process to assess the quality of soil to be brought to and to remain at the Site as imported fill, to ensure that such soil meets applicable Provincial Standards as they apply to the Site.
- Establish protocols for characterizing imported soil and excavated materials and determining management, disposal, and tracking requirements.

- Provide a contingency plan to identify and manage any unknown contamination unexpectedly identified during the construction process or produced due to a spill or accidental release of a contaminant(s) during construction.
- Support the execution of the Health and Safety Plan as it relates to the safety of the construction workforce and the neighbouring community where contamination is encountered.
- Outline the methodology and procedures to minimize dust created during Project Area works including excavation, loading hauling, placement, and compaction of soil.
- Outline the procedures for notification, reporting and record keeping.
- Integrate into other management plans and procedures that could include quality, environmental management, emergency response, and sustainability.

Upon completion of supplemental soil quality sampling, and final civil design plans, this SMP should be updated with a site plan identifying all areas to be excavated with estimated excess soil volumes and soil type and environmental quality to be expected for each area.

1.4 Roles and Responsibilities

The following table briefly defines the roles and responsibilities for those involved in the execution of the SMP.

Role	Responsibility
Project Leader (Owner) - City of Toronto	Provide direction and support during construction. Review and approve the SMP with support from the QP-PL. City's Designate/Project Manager - Randy Ketwaroo
Construction Manager – TBD	Adhere to the requirements of the SMP and facilitate the control measures, work practices, inspection, and monitoring activities detailed in the SMP. Monitor, test, and document materials being excavated, reused, imported, or removed for offsite disposal/beneficial reuse in accordance with the SMP and under the direction of the QP-C. Arrange excess soil waste disposal and beneficial reuse Site locations. Maintain hauling records for at least two (2) years after the last day that the excess soil was loaded for transportation in accordance with Section 28 of O.Reg 406/19.
Contractor & QP-C – TBD	Responsible for management of excess soil related activities during construction, in compliance with O.Reg.406/19 and the companion document "Rules for Soil Management and Excess Soil Quality Standards" (Soil Rules). Clearly identify each excess soil exemption and describe its application to the work, if the Contractor's QP determines that the Work is exempt from Reuse Planning Reports under Section 8 or Schedule 2 of O.Reg 406/19. The Construction Manager shall ensure the Contractor's QP completes any necessary due diligence assessments (including due diligence soil sampling). The requirement for such due diligence assessments shall be determined by the Contractor's QP in consultation with the Contract Administrator and Consultant's QP.

Role	Responsibility
	<p>Work with the Construction Manager to ensure that the construction activities are carried out in accordance with the SMP.</p> <p>Update the SMP, as and when required, following completion of any supplemental soil quality sampling and preparation of supplemental reports where required under O.Reg. 406/19 and the Soil Rules.</p> <p>Monitor the on-site activities during construction and ensure that the management of excess soil for off-site beneficial reuse and/or disposal and imported fill are carried out in accordance with the SMP. The Contractor's QP will consult with the Consultant's QP-PL when and as required.</p> <p>Once reuse or receiver sites have been selected, prepare the ESDAR(s) and support the Project Leader in filing the required Notice with the Resource Productivity and Recovery Authority (RPRA), if not exempt from registration.</p> <p>Support the Construction Manager in implementing a tracking system to monitor excess soil removed from the site for reuse or disposal and soil imported to the site, where required.</p>
Consultant's QP-PL-WSP	<p>Review due diligence or planning document deliverables, as warranted under O.Reg. 406/19, for excess soils being exported from the project area for beneficial reuse and/or disposal and any imported fill (if required) being brought to the project area.</p> <p>Review proposed reuse and receiver sites, including a review of deliverables as applicable under O.Reg. 406/19, and activity logs provided by the QP-C.</p> <p>Provide consultation to the Owner, Construction Manager and QP-C as required.</p> <p>Review soil quality of any imported fill being proposed to be brought to the site, and as provided by the Construction Manager and QP-C, to confirm suitability for reuse within the DWTS Project Area.</p>
Source Site Qualified Person – QP-S	<p>Imported fill from a Source Site must comply with O.Reg.406/19 requirements. For a registered source site, the source Site Qualified Person (QP-S) will provide O.Reg.406/19 planning documentation to the QP-C and QP-PL for review prior to approval for import. For a non-registered source site, the QP-S will provide due diligence documentation, including results of any soil quality sampling, to the QP-C and QP-PL for review prior to approval for import.</p>

2.0 REGULATIONS AND POLICY FRAMEWORK

In addition, the management of excess and/or contaminated soil should be carried out in accordance with the acts, regulations, and guidelines listed in Table 2-1 - List of Applicable Regulations and List of Guidelines and Other Resources (where applicable). While this is not meant to be exhaustive, the project team will ensure that applicable permits and licenses have been obtained, and their conditions satisfied.

Table 2-1: List of Applicable Regulations

Document	Title	Description
R.S.O. 1990 (EPA)	Environmental Protection Act	To provide for the protection and conservation of the natural environment
R.S.O. 1990 (OHSA)	Occupational Health and Safety Act	To provide for the protection of workers
O.Reg.153/04	Records of Site Condition	Ontario regulation relating to record of site conditions.
R.S.O. 1990, Chapter E.1	EPA – Part X Spills	Requirements to prevent, plan for, respond to and report spills
R.R.O 1990, Regulation 360	Spills	Regulation pertaining to spills
O. Reg. 213/07	Ontario Fire Code – Part 4	Requirements for the storage, handling, processing and use of flammable liquids or combustible liquids
S.O. 2000, Chapter 16	Technical Standards and Safety Act, 2000	Technical standards to enhance public safety in Ontario
O.Reg.217/01	Liquid Fuel Oils Regulations (O.Reg.217)	Applied to facilities where gasoline or an associated product is handled, loaded, or dispensed to be used as a fuel in motor vehicles or as a fuel oil
N/A	Liquid Fuels Handling Code, 2007	Standard for the storage and handling of gasoline and associated products from a safety perspective
EPA – Part V	Waste Management	Canadian Environmental Protection Act pertaining to waste management
Transportation of Dangerous Goods Act, 1992	Transportation of Dangerous Goods Act	An Act to promote public safety in the transportation of dangerous goods.
R.R.O 1990, Regulation 362	Waste Management – PCBs	Management of waste containing PCBs
R.R.O 1990, Regulation 347	General - Waste Management	Definition and management of wastes
O.Reg.213/91	Construction Projects	Ontario regulation pertaining to construction projects

Document	Title	Description
O.Reg.278/05	Designated Substance - Asbestos On Construction Projects And In Buildings And Repair Operations	Management of Asbestos
O.Reg.406/19	On-Site and Excess Soil Management	To provide best management practices for excess soil management, including acceptable standards for off site disposal, and excess soils sampling frequency.

There are also guidance documents and references that can be used to ensure that contaminant management work meets expected best practices. A list of available guidelines and other resources is provided in Table 2-2.

Table 2-2: List of Guidelines and Other Resources

Title	Description
Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the EPA, 2011	This document outlines analytical methods and QC protocols based on recognized standard setting organizations, e.g., the Ontario Ministry of Environment, Conservation and Parks (MECP), United States Environmental Protection Agency (USEPA), and American Society for Testing and Materials (ASTM)
Registration Guidance Manual for Generators of Liquid Industrial and Hazardous Waste, 2009	The manual provides the MECP guidance on who needs to register. It also provides an overview of Ontario's hazardous waste management rules and the requirements for generators, carriers and receivers of subject waste.
Land Disposal Restrictions Handbook, 2009	This handbook has been prepared to help understand the land disposal restriction requirements under Regulation 347.
Environmental Standards and Practices User Guide, 2007	The User Guide document potential environmental impacts that are both typical and important and the associated regulatory requirements, considerations, and procedures for avoiding, minimizing, mitigating, or offsetting those impacts in the design and construction of transportation projects.
General Specification for the Management of Excess Materials, 2016	This specification covers requirements for the management of excess materials.

3.0 SUMMARY OF ENVIRONMENTAL SITE CONDITIONS

3.1 Previous Investigations

WSP was retained by the City to provide design services and services during construction for the Project Area. The pavement rehabilitation and construction works will require management of excess soil generated during the construction works, including potentially unsuitable and/or impacted soil fill currently at the Project Area as well as importation of suitable soil fill for use in the project. The management of soil during pavement rehabilitation and construction works must be carried out in accordance with applicable regulations including the Excess Soil Regulation (Ontario Regulation 406/19 - On-Site and Excess Soil Management (O.Reg.406/19), and Ontario Regulation 153/04 - Records of Site Condition, Part XV.1 of the Environmental Protection Act (EPA), as amended ("O.Reg.153/04").

The following previous environmental investigations have been carried out at the Project Area:

- "Soil Quality Screening Memo – Dufferin Transfer Station Pavement Rehabilitation, 35 Vanley Crescent, North York, Ontario", by WSP E&I Canada Limited, dated March 15, 2024; and,
- "Geotechnical Investigation – Dufferin Transfer Station, City of Toronto, Ontario", by WSP Canada Inc., dated June 17, 2024.

3.2 Soil Quality

The previous Soil Quality Screening Memo noted in Section 3.1 was carried out by WSP as part of a joint geotechnical and environmental program in February of 2024. The environmental scope of work consisted of advancing five boreholes to a maximum depth of 6.71 meters below grade surface (mbgs) to provide a preliminary indication of expected soil quality within the Project Area to the anticipated future excavation depths. It is noted that at the time of the soil screening program, the volume of excess soil generated by future construction works was unconfirmed.

Environmental soil sampling was completed at five boreholes advanced within the Project Area. Three of the boreholes were advanced to approximately 1.5 mbgs, two of the boreholes were advanced to approximately 5.3 - 6.7 mbgs. Sampling depths were chosen based on future anticipated excavation depths. A total of eight soil samples were collected and submitted for laboratory analysis of metals and inorganics (M&I) and other regulated parameters (ORP) of electrical conductivity (EC) and sodium adsorption ratio (SAR), petroleum hydrocarbons fractions F1-F4 (PHCs), benzene, toluene, ethylbenzene, and xylenes (BTEX), volatile organic compounds (VOCs), semi-volatiles organic compounds (SVOCs) and polychlorinated biphenyls (PCBs). Two (2) composite Toxicity Characteristic Leaching Procedure (TCLP) sample was submitted for analysis to confirm waste class to inform future waste disposal options.

Environmental soil quality was evaluated against the Ministry of the Environment, Conservation and Parks (MECP) Table 1 Full Depth Background Site Condition Standards (SCS) for Residential/ Parkland/ Institutional (RPI) and Industrial/ Commercial /Community (ICC) property use (Table 1 SCS) to evaluate re-use as inert fill, and Table 3 Full Depth Generic SCS for ICC property use non-potable groundwater condition (Table 3 SCS) to evaluate suitability for re-use on-site. In order to determine suitability of soil for off-site beneficial re-use, analytical soil quality data was compared to MECP Table 3.1 Full Depth Excess Soil Quality Standards in a Non-Potable Ground Water Condition, for ICC Property Use (Table 3.1 ESQS), and Table 2.1 Full Depth Excess Soil Quality Standards in Potable Ground Water Condition, for RPI Property Use (Table 2.1 ESQS).

Analytical results identified soil with elevated concentrations above the Table 1 SCS in all locations. Soil with concentrations elevated above the Table 3 SCS for parameters other than EC and SAR were measured in two borehole locations. Analytical results identified soil with elevated concentrations above the Table 2.1 ESQS and Table 3.1 ESQS for multiple parameters in four of the five borehole locations, although all borehole locations exceeded both criteria for EC and/or SAR. Soil was classified as non-hazardous waste based on the Toxicity Characteristic Leaching Procedure (TCLP) results. A copy of the soil quality summary memo and analytical results is included in Appendix A.

The previous Geotechnical Investigation noted in Section 3.1 carried out by WSP was part of a joint geotechnical and environmental soil screening program in February 2024. The geotechnical investigation was undertaken to provide specifications surrounding pavement rehabilitation and to design a bunker and a prefabricated building at the DWTS. The scope of work involved advancing fourteen boreholes to depths ranging from 1.5 to 9.6 mbgs. Soil samples were collected from all boreholes. Samples were submitted for analysis including moisture content, hydrometer analysis, sieve analysis, Atterberg Limits, corrosivity, and asbestos testing. The geotechnical report summarizes the results of these analyses including pavement structures and fill materials, asbestos testing, and groundwater and cave-in conditions, and also presents interpretations and recommendations for the bunker and pre-fabricated building foundations.

Further revisions should be made to update this SMP based on the availability of new soil data and/or project information.

3.3 Preliminary Earthwork Quantities

It was noted at the time the Soil Screening Memo (WSP, 2024) was drafted, the potential volume of excess soils to be generated at the Project Area was unconfirmed. However, since that time, as detailed design has now been completed, the Preliminary Earthworks quantities as determined by the WSP structural team as of March 18, 2025, is expected to be approximately 1,300 m³ of Granular A comprised of rock, crushed rock and fines for the pavement rehabilitation and building replacement works and approximately 300 m³ of underlying fill for the building replacement work.

Based on the Preliminary Earthworks quantity above, the preliminary excess soil quality screening program completed in 2024 meets the volume-based bulk soil sampling requirements to inform excess soil management planning and, where required, registration of the anticipated 1,600 m³ of excess soil meeting the definition of excess soil in O.Reg. 406/19, with the exception of completion of modified Synthetic Precipitation Leaching Procedure (mSPLP) sampling. As such, mSPLP sampling may be required to be completed by the Contractor and QP-C in consultation with the Consultant's QP, in order to fill in soil quality data gaps prior to construction to inform excess soil management planning and project registration if required by the chosen reuse/receiver/disposal site. Supplemental reporting, including planning document preparation per O.Reg. 406/19, may also be required to be completed by the Contractor and QP-C, to fill in the data gaps to support project registration.

It should be noted that the estimated soil volume is subject to change based on design and construction changes, and will be updated, if necessary, in future iterations of the SMP.

Should the volume of excess soil to be generated change significantly during pavement rehabilitation or construction works, the latest SAP would be revised to capture additional characterization that would be needed to meet the minimum sample per unit volume requirements as per O.Reg.406/19, including any mSPLP sampling. In addition, this SMP should be updated with appropriate documentation prior to any soil removal for off-site disposal, if and as required to support registration.

4.0 MANAGEMENT OF EXCAVATED MATERIALS AND IMPORTED SOIL

To assess soil quality to inform re-use options, the chemical analysis results were compared to applicable SCS and ESQS based on property use within the project area, as set out under O.Reg.153/04 in the document entitled *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the EPA* dated 15 April 2011, and property use within most commonly encountered beneficial re-use sites, as set out under O.Reg. 406/19 in the document entitled *Rules for Soil Management and Excess Soil Quality Standards* dated 19 February 2024.

4.1 Excess Soil Beneficial Re-use and Disposal

The preliminary soil quality screening program carried out by WSP in 2023 and documented in the Soil Screening Memo (WSP, 2024) compared the analytical soil quality data to the following SCS:

- Table 1: Full Depth Background SCS for RPI/ICC property use (Table 1 RPI ICC SCS) to evaluate suitability for re-use on or off-site as inert fill; and,
- Table 3: Full Depth Generic SCS for ICC property use non-potable groundwater condition (Table 3 ICC SCS) to evaluate suitability for re-use on-site.

In order to determine the suitability of soil for off-site beneficial re-use, analytical soil quality data was also compared to O.Reg. 406/19 ESQS at the most typically available beneficial re-use sites:

- Table 3.1 Full Depth Excess Soil Quality Standards in a Non-Potable Ground Water Condition, for ICC Property Use (Table 3.1 ICC ESQS); and,
- Table 2.1 Full Depth Excess Soil Quality Standards in Potable Ground Water Condition, for RPI Property Use (Table 2.1 RPI ESQS).

Based on the preliminary screening results obtained:

- Concentrations of contaminants of concern in excess soil samples collected from within the Project Area exceeded Table 1 RPI/ICC SCS for multiple parameters. Therefore, excess soil generated during construction cannot be re-used on or off-site as inert fill.
- Concentrations of contaminants of concern in excess soil samples collected from within the Project Area also exceeded Table 3 ICC SCS for multiple parameters (other than EC and/or SAR) in two borehole locations (BH23-09 and BH23-12), thus excess soil generated during construction in the vicinity of these locations should not be re-used on-site. It is noted that the extent of the exceedances have not been delineated in these two sampling locations. Excess soil generated in the vicinity of the other three borehole locations (BH23-02, BH23-11 and BH23-13) may be suitable for re-use on-site, providing future land use will include continued parking lot and roadway salting of asphalt and pavement covered areas for the purposes of vehicular and pedestrian safety, and, providing they are also geotechnically suitable for the intended re-use.
- Concentrations of contaminants of concern in excess soil samples collected from within the Project Area exceeded Table 2.1 RPI ESQS and the Table 3.1 ICC ESQS for multiple parameters in four of the five sampling locations. Thus, excess soil generated during future construction activities would not be suitable for beneficial re-use at these categories of re-use sites.

- Excess soil generated by future construction activities, if not re-used on-site, should be taken to an MECP licensed landfill for disposal or other suitable receiver site capable of accepting the material (1,300 m³ Granular A and 300 m³ of underlying fill). It is noted that some sized based sorting, either on-site or at the receiver site, to segregate larger rocks and particles from the fines in the Granular A material, may allow more flexibility for future reuse or disposal options.
- Removal of excess soils for off-site disposal shall be controlled per O.Reg. 347/90 requirements and acceptance and will need to adhere to O.Reg. 406/19 requirements for tracking and hauling (Appendix B contains example Hauling Record Templates). At a minimum, the QP-C will ensure that the final disposal/treatment facility is an MECP approved waste disposal or treatment facility and that the Project Area has a waste generation number provided by the MECP. Required manifests and/or documentation for transportation and disposal of the contaminated soil will be collected and retained.

It is noted that based on the Soil Quality Screening Memo (WSP, 2024), eight soil quality screening samples were taken, which would meet the volume-based bulk sampling required to support excess soil management and planning for the most recently updated anticipated volume of 1,600 m³. However, supplemental sampling, to delineate observed impacts and also to obtain mSPLP results, may be completed by the Contractor and QP-C, in consultation with the Consultant's QP, to fill in data gaps and inform project registration if warranted and required by the selected receiver site.

Construction debris should be sorted out for offsite disposal as regular construction waste, based on visual assessment. Should hazardous materials be identified (e.g., asbestos), then the environmental consultant should be contacted for verification. Consideration should be made to reduce soil disposal volumes by applying segregation methods to separate soils from rock-sized particles which may be recycled or reused elsewhere.

4.2 Imported Fill

"Soils" as defined by O.Reg.406/19 that are brought to the Project Area must meet the requirements for soil importation as outlined in the O. Reg. 153/04 Schedule E, Section's 30 to 36, and O.Reg.406/19, if applicable.

Imported soil, recycled concrete, or granular materials brought to the Project Area should be sourced from a commercial operation, licensed pit, or quarry, where possible, to capitalize on reliable source material.

Aggregate products from a Ministry of Natural Resources (MNR) pit or quarry are not considered excess soils and are exempt from the O.Reg.406/19, however, the imported aggregate must be pure pit run sourced from the site with no mixing with other materials and/or of suitable quality as verified by the QP-PL. As such, should imported soils brought to the Project Area originating from sources other than a licensed pit, those soils will be tested for suspected contaminants of concern associated with those source sites at a frequency specified in O.Reg.406/19. Planning documents (for registered source sites), or due diligence summary reports (for non-registered source sites) and soil quality data shall be provided to the QP-PL for review to evaluate suitability for re-use within the DWTS Project Area. Under no circumstances will any fill be imported to the DWTS site without written approval from the Project Leader and QP-PL.

The importation of granular materials or recycled concrete should be monitored by the Construction General Superintendent to ensure that these materials are free from oily staining and hazardous materials, including asbestos.

When excess soil is being imported to the Project Area, a soil importation form shall be completed by the QP-PL to ensure the imported excess soil is in accordance with O.Reg. 406/19 and is suitable for re-use at the DWTS site. An example of a Site-Specific Fill Importation Form is provided in Appendix D.

5.0 ADMINISTRATIVE CONTROLS

Administrative controls will be used in the work zone to reduce the potential for worker contact with contaminated soil or dust. Administrative controls include limiting equipment speeds, limiting traffic volume to only essential vehicles, and minimizing dust-generating activities.

Examples of administrative controls are provided below:

- Limit maximum speeds on unpaved roads to 10 km/h.
- Post speed signs at the entrance to the construction zone.
- Control heavy equipment and vehicle routing to designated roadways or paths.
- Restrict working areas in high wind conditions.
- Mark vehicle routes, traffic plans, and entrances and exits to the construction zone on a site plan that is part of the preliminary SMP.
- Restrict access to only approved personnel. The preliminary SMP should note access restrictions and authorized entry areas.
- Restrict vehicles to designated employee parking areas. Cars driven by site workers and visitors should be banned from work areas except under emergency conditions.
- Maintain a database of sampling locations, dates, parameters analyzed, etc. of the data used to identify and locate impacted soil in the work area, where applicable.

5.1 Administrative Controls for Site Activities

The administrative controls for activities at the Project Area are limited to the following requirements.

With respect to **work area access**:

- Work area access is restricted to authorized personnel only.
- Work area must be made secure by means of barricades and/or fencing and have at least one (1) person stationed in proximity to any open excavation where potential access by members of the public has not been secured.

With respect to **vehicles brought by contractor employees**:

- Vehicles brought by contractor employees will be restricted to designated parking areas and will not be permitted in work areas except in the case of emergencies.
- Areas used for parking by contractor employees will be agreed upon in advance with the Owner of the land where the vehicles are to be parked.

With respect to **the routes to be taken by construction vehicles and other types of vehicles needed at the work area:**

- Construction equipment and vehicles needed at work areas will follow predesignated travel routes including construction paths, abide by speed limits different from those already posted, follow special signage, enter/exit at special vehicle entry / exit points.

With respect to **restricting work in high wind conditions:**

- Dust control measures will be implemented during activities to reduce the potential for soil particles to become suspended and transported in the air to locations outside the work area.

With respect to **maintaining a database of environmental information to identify impacted materials:**

- Information collected to locate, identify, and characterize impacted material shall be maintained in an organized, accessible manner.

6.0 ENGINEERING CONTROLS

One of the primary functions of the preliminary SMP is to provide direction for the management of impacted soil during any excavation and handling activities at the Project Area in accordance with the regulations and guidelines. This report shall also be applied during any subsequent earthworks to be undertaken on the Project Area as a best management practice and if additional impacted soils are unexpectedly encountered during such earth works.

Engineering controls shall be employed in the work zone to reduce the potential for worker contact with contaminated soil or the migration of potentially contaminated soil or sediment due to dust generation, soil tracking, or erosion. The following engineering controls shall apply:

- Health and Safety Plan.
- Work Practices for Heavy Equipment.
- Equipment and Vehicle Decontamination.
- Transportation of Contaminated Soil.
- Dust Control.
- Contamination from Accidental Spills and Releases.
- Runoff Control.
- Erosion and Sediment Control.

Details of the above are presented in the following sections.

6.1 Human Health (Construction Worker)

A site-specific Health and Safety Plan (HASP) shall be developed and implemented by an appropriately qualified person under the *Occupational Health and Safety Act* (OHSA) and shall take into consideration the concentrations of COPCs present in the soil and groundwater (where confirmed to be present) and the potential risks to

construction workers. The HASP shall specify the appropriate personal protective equipment (PPE) required to prevent direct contact with soil containing Contaminants of Potential Concern (COPCs) in concentrations exceeding the applicable SCS. Based on the maximum concentrations of COPCs present in soil and a cursory assessment of risk to the construction worker, PPE consisting of gloves, boots and work clothes should be sufficient to mitigate exposure to levels considered acceptable.

Prior to initiating a project as defined under the OHSA that will involve disturbing soil with hydrocarbons impact, the local Ministry of Labour (MOL) office must be notified of the proposed activities and the measures being taken to manage exposure to hydrocarbons present in the soil, if any.

6.2 Work Practices for Heavy Equipment

The Contractor is responsible for implementing the following work practices to minimize the potential for contact with contaminated soil:

- Heavy equipment operators should minimize the drop-height distances from excavator to truck bed and from the excavator to the ground.
- When practical, excavated material will be taken directly to its designated location rather than handling and stockpiling it several times.
- Caution must always be exercised to prevent spillage during transport.
- Liquids should always be transported in containers that do not leak.
- Appropriate measures shall be taken to mitigate dust generation during soil excavation, transportation, and placement (refer to Section 6.5 for more details).

6.3 Equipment and Vehicle Decontamination

For construction equipment, decontamination procedures are intended to reduce the potential for soil particles to be carried by vehicles or construction equipment onto and away from the Project Area. Trucks should be inspected and decontaminated (if required) prior to leaving the Project Area. Special attention should be paid to tires and truck boxes. This also applies to the tires of trucks taking excavated or extracted materials for disposal off-Site. Construction equipment that has encountered contaminated soils should be cleaned using physical brushing and/or a high pressure, low volume, water wash to remove any mud, hydraulic fluid, or other foreign matter. Any vehicles such as dump trucks or personal vehicles which may encounter contaminated material while on Project Area shall also be decontaminated prior to leaving the Project Area to ensure that impacted soils are not tracked onto public roadways.

If more than three (3) vehicles or pieces of construction equipment need to be cleaned in a day, then a decontamination pad will be constructed at or adjacent to the work area. The decontamination pad shall be located on original grade so as not to cross contaminate any capping or other materials imported to the Project Area. Vehicles leaving the Project Area will be cleaned at decontamination stations positioned at entrance/exit points around the Project Area. The decontamination pad may be a portable design and shall be located to prevent recontamination of equipment prior to entry onto public roads.

Wash water will be collected and containerized in a suitable tank or storage facility. Wash water will be characterized and disposed of in accordance with applicable regulations. The Contractor is responsible for obtaining any permits or agreements needed to discharge to a municipal sewer, the chemical testing of wash

water, and arranging for the disposal of the wash water, as per the City of Toronto Sewers By-Law (Municipal Code, Chapter 681). If the wash water is free of any visible evidence of contamination (e.g., iridescent sheen, coloration, foam) it may be able to be discharged to the original ground surface upon approval of the QP-C and review of any analytical results to confirm quality.

6.4 Transportation of Contaminated Soil

The Contractor will be responsible for implementing the following procedures:

- When materials that have the potential to emit dust are being brought to or taken away from the Project Area, they are to be transported in suitably covered, leak-resistant haulage vehicles or containers to minimize the amounts of dust generated.
- Carriers retained by the Contractor will be required to cover and secure loads in accordance with the requirements of the *Highway Traffic Act*.

Compliance will be assessed periodically through “spot-checks” by the Construction Manager. Instances of inadequate truck tarping will be brought to the attention of the Contractor immediately upon being observed.

6.5 Dust Control

Dust control measures shall be applied as necessary, to prevent the generation of fugitive dust to ambient air during soil excavation and handling operations; this will serve to minimize Project Area worker exposure, and to minimize any effects on the public from exposure to fugitive dust and particle bound COPCs, as well as respirable silica which may be generated during concrete cutting. Dust control will also be required to mitigate fugitive dust resulting from the operation of vehicles and equipment at the Project Area. The contractor shall be responsible for implementing dust control measures. Appropriate measures will be taken to mitigate dust generation, which may include dust monitoring, during soil excavation, transportation, and placement.

The Contractor shall prepare a Dust Control Plan to mitigate excessive fugitive dust emissions to avoid effects on other parts of the Project Area and on adjacent properties during the Project Area works. The dust control measures to be utilized must be carried out in accordance with contract documents and standard construction practices. Application of water as a dust suppressant will be used for dust control, and only potable water will be used. Wet road sweeping of paved roads will also be used for dust control, where necessary. Surface water runoff resulting from dust suppression shall be avoided. Dust controls should be implemented based on inspections and visual monitoring by the contractor and include consideration of the weather conditions, the presence of track-out or accumulation of particulates on roadways, traffic volumes, and work being completed.

Dust levels shall be noted by visual inspection several times a day by the contractor. Observations shall be made more frequently on windy days, or on hot, dry days. A log will be kept where daily observations related to dust events will be recorded. If the contractor or Project Area Supervisor determines that dust levels are unacceptable (based either on visual observation of excessive dust or on receiving a complaint from any member of the public that has been verified by investigation), earth moving activities will stop until mitigative measures have been put in place.

Should dust emissions be deemed problematic, fugitive dust monitoring should be carried out to assess dust emissions and measure airborne particulate loadings from the Project Area and to measure the effectiveness of any dust control measures implemented at the Project Area, as well as to address potential complaints from the public. The Project Area action levels should be based upon the Ambient Air Quality Criteria (AAQC), however, as

these are for the 24-hour averaging time Action Levels will be established for the 1-hour averaging time. For particulate matter less than 10 microns in size (PM₁₀), which will be used as a surrogate for total fugitive dust, the Action Level will be 100 µg/m³ as an hourly average. The 1-hour trigger level of 100 µg/m³ is based upon the 24-hour interim AAQC of 50 µg/m³, which converts to 120 µg/m³ as a 1-hour average. An updated Action Level has been adapted from the AAQC and establishes a 15-minute averaging time. For particulate matter less than 10 microns in size (PM₁₀), which will be used as a surrogate for total fugitive dust, the Action Level will be 150 µg/m³ as a 15-minute average. The 15-minute Action Level has been selected to provide assurance that, with effective mitigation, the 24-hour AAQC should not be exceeded.

The AAQC has also been set to be protective of exposure to the COPCs identified at the Project Area and will thus serve as conservative contaminant surrogate. This will allow for near real-time measurements that would trigger corrective actions where the Action Levels are exceeded. The surrogate values may be periodically verified and/or calibrated through analysis for the target contaminants of concern, using hi-volume samplers (or alternate samplers if power is not available).

Potential management practices and corrective actions for dust control may include the following:

- Instructing workers on dust management and dust control methods, including reporting elevated dust to the Project Area supervisor.
- Heavy equipment operators should minimize the drop-height distances from excavator to truck bed and from the excavator to the ground.
- When practical, excavated material will be taken directly to its designated location rather than handling and stockpiling it several times.
- Adjustment of the excavation rate, grading activities and soil handling to minimize dust emission.
- Use of load covers over haulage trucks.
- Visual monitoring of dust emissions to identify activities where dust mitigation is required to prevent unacceptable dust effects.
- Monitoring wind conditions and adjusting excavation, soil, soil handling and/or haulage rates or suspending work, as necessary.
- Soil wetting using water or application of other chemical dust suppressants, as deemed appropriate.
- Undertaking regular cleaning of construction sites and access roads to remove construction caused debris and dust.
- Applying dust suppression measures on unpaved haul roads and other traffic areas susceptible to dust and maintaining roadways in good condition with coarse aggregate on the surface.
- If appropriate (considering prevailing weather, slope, proximity of watercourses and other factors), using water for dust suppression applied using suitable equipment (e.g. a tank truck with spray bars) with care taken to limit the quantity of water applied to avoid runoff.
- Preventing trucks and other vehicles from tracking soil, mud or dust onto paved streets or roads (e.g. use wheel washes or other method to mitigate tracking).

- Promptly cleaning paved streets/roads where tracking of soil, mud or dust has occurred using wet sweeping methods only.
- Covering fine grained materials during transport (to prevent or mitigate loss of material through wind erosion).
- Covering soil, sand and aggregate stockpiles as necessary to prevent or mitigate potential for fugitive dust formation.
- Monitoring the need for, and the effectiveness of, dust suppression measures.
- Complying with posted speed limits and, as appropriate, further reduce speed when travelling sites on unpaved surfaces to reduce dust creation.

Dust emissions shall be monitored daily during Project Area work by the Contractor, or designated personnel, and observations should be recorded in a Daily Inspection Checklist, maintained by the Contractor for the duration of the works.

6.6 Contamination from Accidental Spills and Releases

Construction projects typically require the handling of chemicals that can cause impacts to soil and/or ground water if inadvertently released to the environment. Primarily, this is the storage and dispensing of diesel fuel for construction equipment or hydraulic equipment failure that can create petroleum hydrocarbon impacts to soil from spills and possibly to sediment if spills occur during rain events and runoff enters drainage channels. The Contractor will operate in accordance with TSSA Act (O.Reg.217/01) to safely manage re-fueling and fuel storage operations.

The Contractor will be responsible for the preparation of a Spills and Emergency Preparedness and Response Plan under separate cover.

The Contractor will be responsible for the preparation of pollution control and spill response procedures. Spillage control measures are intended to prevent spills, minimize spill volumes, and have resources in place to respond to unplanned releases. The Contractor shall provide spill response materials including, containers, adsorbent, shovels, and personal protective equipment. Spill response materials shall always be available, in which hazardous materials or wastes are being handled or transported. Spill response materials shall be compatible with type of material being handled.

If necessary, spill and emergency response procedures will be followed to deal with the immediate release. Following the emergency response, the Contractor shall notify the Construction Manager that a spill has occurred so that the required confirmatory samples can be taken to determine that there are no residual impacts to the soil and/or ground water at the location of the spill.

The contractor shall be responsible for the following spillage control procedures:

- Good housekeeping practices shall be implemented to minimize the potential for spills, leaks, or unintentional releases of materials to the natural environment.
- Equipment and vehicle refueling, and maintenance will only be performed at designated areas and will be conducted at least 30 m away from open sewer grates.

- Caution must always be exercised to prevent spillage during transport. Liquids should always be transported in containers that do not leak.
- Emergency response equipment (i.e., spill kits) will be located near storage areas and vehicles which are being refueled, and all vehicles on-site will be equipped with spill kits.
- If contaminated materials are spilled, the Contractor is to take measures immediately to contain the spill or release. These measures could include including pumping, vacuum extraction, or the installation of spill control barriers.
- The Contractor is responsible for having the equipment and resources needed to undertake spillage control.
- If necessary, analytical testing will be undertaken as necessary to confirm the adequacy of the clean-up.
- A log of such activities is to be maintained and available for inspection. Documentation of spill control and remediation activities shall be done in accordance with Ontario Regulation 347.
- The Contractor shall report the spill to the MECP Spills Action Centre (SAC) in accordance with applicable legislation.

6.7 Odour Suppression

The Contractor will be responsible for taking the following steps to minimize vapour and odour emissions to ambient air and to prevent nuisances occurring at downwind locations:

- The amount of exposed surface area in excavations will be minimized where possible.
- Stockpiles of known contaminated materials with noticeable excessive, nuisance odours that will remain for extended periods will be covered.
- If odour levels are unacceptable (based either on direct observations or upon receiving a complaint from any member of the public), it should be considered to stop the construction activities until mitigative measures have been put in place. Such measures could include temporary backfilling or the application of a fixative or sealant to exposed surfaces can be used.

6.8 Runoff Control

The Contractor shall plan and execute construction using appropriate methods to control surface drainage from cuts and fills, from borrow and waste disposal areas, from stockpiles, staging areas, and other work areas.

Runoff control will be the responsibility of the Contractor and Site Superintendent, and they should follow all accepted industry practices and regulatory requirements.

The Contractor shall plan and execute construction using appropriate methods to control surface drainage from cuts and fills, from borrow and waste disposal areas, from stockpiles, staging areas, and other work areas. The Contractor shall take all necessary precautions to prevent non-filtered or contaminated water from entering the storm and sanitary sewer systems or discharge beyond or outside the work area along surface routes, in compliance with the Regional Municipality of Peel Sewer Use By-Law. The Contractor shall seal all manhole

covers and construct sludge traps around all storm water catch basins. The Contractor shall also inspect and/or clean out all sludge traps on a scheduled basis to ensure their satisfactory performance.

The Contractor shall protect the Project Area from puddling or running water. The Project Area shall be graded to promote drainage. Surface water runoff shall be prevented from leaving work areas. Water barriers shall be provided as necessary to protect the Project Area from soil erosion. Surface waters that have not contacted potentially contaminated materials shall be directed to existing surface drainage systems. Decontaminated water, or surface water runoff, or groundwater which may encounter potentially contaminated material shall not be discharged off site or to municipal sewers without written approval of the Construction Manager and/or the City of Toronto.

The Contractor shall prevent precipitation from infiltrating or from directly running off stockpiled materials. Stockpiled materials shall be covered with an impermeable cover during periods of work stoppage including at end of each working day. Except for clean off-site material imported to the Project Area, any runoff from stockpiled materials shall be contained and transferred to wastewater storage tanks separate from any wastewater from any Personnel Hygiene and/or Decontamination Facilities.

The Contractor shall have on hand sufficient pumping equipment, machinery, and tankage in good working condition for ordinary emergencies, including power outage, and competent workers for operation of pumping equipment.

6.9 Erosion and Sediment Control

The Contractor shall plan and execute construction by methods to prevent erosion and sedimentation to minimize or eliminate the migration of potentially contaminated soil off site by runoff, drainage systems, or watercourses.

Erosion and sediment control will be the responsibility of the Contractor and Site Superintendent, and they should follow all accepted industry practices and regulatory requirements.

The Contractor shall plan and execute construction by methods to prevent erosion and sedimentation to minimize or eliminate the migration of potentially contaminated soil off site by runoff, drainage systems, or watercourses.

This shall include:

- Minimizing the amount of bare soil exposed at one time.
- Stabilizing any disturbed soils as quickly as practical.
- Prevent spillage during transport.
- Stripping vegetation, regrading, or otherwise developing to minimize erosion.
- Covering temporary stockpiles.
- Avoiding the disturbance of existing embankments or embankment protection.
- Removing accumulated sediment resulting from construction activity from adjoining surfaces, drainage systems, and water courses, and repair damage caused by soil erosion and sedimentation.
- Protecting gutters, storm drains, catch basins, and other drainage system features using hay or straw bales or silt fences.

- Minimizing contact of waste materials with rainfall and runoff. Water that comes into contact with waste needs to be separated from other runoff and needs to be tested and may need to be treated.
- Using barriers to minimize potential contact and runoff creation.
- Inspecting erosion control mechanisms during rain events and the observations recorded.

The Contractor shall provide and maintain temporary measures which may be required including silt fences, hay or straw bales, ditches, geotextiles, drains, berms, terracing, riprap, temporary drainage piping, sedimentation basins, vegetative cover, dikes, and other construction required to prevent erosion and migration of silt, mud, sediment, and other debris off site or to other areas of Project Area where damage might result, or that might otherwise be required by Laws and Regulations.

The Contractor shall periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures as necessary. Soil and debris from the Project Area accumulated in low areas, storm sewers, roadways, gutters, ditches, or other areas shall be removed, and the areas restored to original condition. A contingency plan should be in place in the event of failure of any erosion control measure or if erosion or sediment control measures are not operating as designed.

6.10 Interim Stockpiling and Soil Handling

Should it be necessary or required to temporarily stockpile excavated soil, the excavated soil will be placed in controlled stockpiles at predetermined locations. Stockpiles must be constructed by the Contractor in a manner which prevents the release of dusts, odours, or sediment offsite or into storm water infrastructure. It has been assumed that no stockpiling or handling of liquid soils will be required during the construction works.

Interim stockpiling is the responsibility of the Contractor and Site Superintendent, and should follow accepted industry practices and regulatory requirements, including relevant municipal by-laws and the following O.Reg.406/19 guidance:

As per Section C – Soil Management Requirements of the document “Rules for Soil Management and Excess Soil Quality Standards”, dated February 14, 2024 (Soil Rules), and for the purposes of Section 24 of the regulation, soil stored at a project area, a Class 2 soil management site, a local waste transfer facility, a residential development soil depot, a landscaping soil depot or at a reuse site before it is finally placed, must be stored in accordance with the following:

(1) General

1. Soil and crushed rock shall be managed in such a way as to prevent any adverse effects associated with the receiving, processing, storage and movement of soil, including management of:

- i. noise;*
- ii. dust;*
- iii. mud tracking;*
- iv. leaching;*
- v. run-off and erosion; and*
- vi. potential outdoor air impact(s), including odour issue(s).*

- 2. Dry soil and crushed rock must be segregated and stored in stockpiles in accordance with paragraphs 3 and 4.*
- 3. Soil and crushed rock that has not been sampled and analyzed, and is required to complete sampling and analysis, must be kept segregated from other soil and crushed rock.*
- 4. Unless stockpiled for a specific reuse site, Class 1 soil management site, landfill or dump, where the stockpile meets the requirements for acceptance of the excess soil that have been confirmed with the receiving site, soil and crushed rock must be segregated in accordance with the following:*
 - i. Soil and crushed rock that has been sampled and analyzed must be kept segregated from other soil and crushed rock and segregated based on the table of excess soil quality standards that the soil and crushed rock meets.*
 - ii. If excess soil has not been sampled and analyzed, the excess soil from different project areas must be segregated unless there is reasonable confidence that the excess soil is of similar quality given the property uses and activities associated with the areas from which it was excavated and there is no visual or olfactory evidence of contamination.*
 - iii. Salt-impacted excess soil and soil and crushed rock that will become salt-impacted excess soil must be segregated from other soil and crushed rock.*
- 5. The soil stored must not be stored at a location:*
 - i. within 30 metres of a waterbody; and*
 - ii. within 10 metres of the property line (boundary), unless any of the following apply:*
 - a) 500 m3 or less of excess soil will be stored at any one time on the project area;*
 - b) Excess soil storage at the project area will be for a period of time of less than 1 week;*
 - c) The storage location has a physical barrier (e.g., concrete wall) between the excess soil and the property boundary; or*
 - d) The storage is taking place in a public road right-of-way.*
- 7. Soil shall be stored in a manner that prevents any contaminants from the soil from leaching into the ground water.*

6.11 Unknown or Unexpected Contamination

Construction activities could result in identification of additional unknown or unexpected subsurface contamination during the earth work phases including soil contaminations at deeper levels and/or other contaminant types.

Potential soil and/or groundwater contamination may be indicated in the field by:

- Discoloured or stained soil;
- Odorous soil or groundwater;
- Free phase liquid PHCs observed in soil and/or on water (including iridescent sheen or rainbow pattern);
or

- The presence of other foreign materials, such as ashes, cinders, slag, wood, metal, drums, waste dumps or building rubble which could be a source of contamination.

If the City considers sub-surface materials to be contaminated beyond that which is already known, they will:

- Stop work and secure the area;
- Contact the Site Construction Manager or their delegate;
- Remove all non-essential workers from the work area; and,
- Contact the Site Health and Safety Manager.

The City will be responsible for assessing the findings regarding unknown of unexpected contamination. The Construction Manager will contact the QP-PL upon the discovery of any unknown or unexpected contamination that is not addressed.

The QP-C will be responsible for taking samples based on the sampling plan prepared by the QP-C to characterize and delineate the extent of the potential contamination and defining appropriate remedial actions, if required. No actual and/or potentially contaminated material(s) should be handled without the authorization of the Construction Manager and/or QP-C.

The QP-C will prepare and submit a plan for the removal or management of the Contamination.

The QP-C or designate will visit the Project Area and determine the next steps, which will include, one (1) or more of the following further testing methods:

- Review and confirm the Construction Manager's field observations by visiting the Project Area, as soon as practicable;
- Recover soil samples from the resulting excavation, at a frequency described in the O.Reg.153/04 Minimum Confirmation Sampling Requirements for Excavations table, as per the document "Rules for Soil Management and Excess Soil Quality Standards";
- Recover soil samples from the suspected contaminated excavated soils, at a frequency described in the O.Reg.153/04 Minimum Stockpile Sampling Frequency table, as per the Soil Rules;
- Soil samples will be analyzed on a rush 24 – 36-hour turnaround time basis; and,
- A Toxicity Characteristic Leaching Procedure sample should be collected and submitted for laboratory analysis in order to confirm waste classification for landfill disposal.

Following receipt and interpretation of the laboratory analytical results, appropriate soil management options will be provided to those responsible.

6.12 Temporary Stockpiling of Contaminated Material

Should it be necessary or required to temporarily stockpile excavated contaminated soil, the excavated soil will be placed in a controlled stockpile at predetermined locations. Contaminated soil can be homogenized, when necessary, but only for Project Area organization and Project Area staging purposes to facilitate direct off-Site disposal as waste, and not for any other purpose (i.e., remediation or mixing/blending for the dilution of contaminants). The stockpiling of soil in this manner must meet all relevant regulatory requirements.

Other than limitations due to municipal by-laws, and to proximity to property boundaries and water bodies, stockpiles can be constructed at reasonably practical volumes but must be constructed in the following manner to

prevent adverse effects, such as the release of dusts, odours, or sediment off-Site or into storm water infrastructure. Such measures may include, but are not limited to:

- Locating stockpiles containing contaminated fills/soils directly on area of existing contaminated soil (i.e., on existing or unimproved ground surface) to avoid cross contamination with clean imported soil and/or engineered fill materials.
- Grading the stockpiles in a manner to control direction of run-off and confine it to within the Project Area limits.
- To reduce wind erosion and erosion, stockpile height should be less than 3.0 m.
- Stockpiles should be managed to minimize freshly exposed surfaces.
- Stockpiles are to be located as far as practical from catch basins or sewer grates.
- Fill or debris should be sorted out for offsite disposal or recycling.
- Spraying with water to reduce fugitive dust emissions, if necessary.
- Covering with polyethylene sheeting or thick tarpaulins to protect from adverse weather, wind, and rain (depending on size). This requirement only pertains to soil with contamination that has been identified as a human health risk.
- Placing polyethylene sheeting on the ground prior to stockpiling.
- Perimeter barriers including hay bales or silt fencing (as appropriate) to minimize the impact from run-off during severe weather events.
- In a storm event, the structures located on Project Area for erosion and sediment control will need to be inspected and replaced or altered if necessary. Any material which is retained behind the sediment control structures shall be collected at the end of the event and stored in the stockpile area for testing and proper disposal or re-use like other contaminated materials.
- Dust on the Project Area from material transfer and from material removal shall be controlled by following soil management procedures outlined in the Contractor environmental protection plans prepared in support of the Project Area development work.

7.0 DOCUMENTATION

Under O.Reg. 406/19 Section 8 – Notice to be Filed on Registry, subject to subsections (2) and (3), a Notice will be prepared by the QP-C in consultation with the Consultant's QP, for excess soils removed from the DWTF site if not eligible for exemption from registration. The Consultant's QP will be the authorized person on behalf of the Project leader prior to soil movement.

Results obtained during the soil quality screening investigation indicate that soils would generally not be suitable for re-use on-site and not suitable for reuse at a Table 2.1 RPI ESQS or Table 3.1 ICC ESQS beneficial re-use site. Hence, excess soils generated during construction should be removed for off-site disposal at an MECP Licensed landfill or disposal facility or other receiver site able to accept the material generated (1,300 m³ Granular A and 300 m³ fill). If the volume of excess soil generated by construction significantly increases in the future (i.e., >1,600 m³), supplemental sampling and preparation of planning documentation may be required to inform reuse options and support registration. It is noted that mSPLP sampling may also be required by the Contractor and QP-C in order to fill in data gaps to support registration and/or may be required by the chosen receiver site. Planning documentation may include preparation of some, or all, of the following by the Contractor and QP-C:

- Assessment of Past Uses (APU) Report;
- Sampling and Analysis Plan (SAP);
- Soil Characterization Report (SCR); and,
- Excess Soils Destination Assessment Report (ESDAR).

Additional requirements to be provided by the Contractor and QP-C may include:

- Due Diligence Sampling to fill in data gaps and inform preparation of planning documents;
- Soil Tracking System in compliance with O. Reg.406/19 (e.g., *SoilFlo* or equivalent), or a Soil Tonnage Tracking Sheet (Appendix C includes an example); and,
- QP-C Declaration Statements as required under O.Reg. 406/19.

8.0 LIMITATIONS

This report was prepared for the exclusive use of the City of Toronto and is intended to provide a SMP to support the management excess soil generated during future pavement rehabilitation and construction works at the Scarborough Waste Transfer Station (“SWTS”), located at 1 Transfer Place, in Scarborough, Ontario. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from WSP will be required. With respect to third parties, WSP has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The investigation undertaken by WSP with respect to this report and any conclusions or recommendations made in this report reflect WSP’s judgment based on the Project Area’s conditions observed at the time of the field investigation in February 2024 and on time of the site inspection on the date(s) set out in this report and on information available at the time of preparation of this report. This report has been prepared for specific application to this Project Area and it is based, in part, upon visual observation of the site, subsurface investigation at discrete locations and depths, and specific analysis of specific chemical parameters and materials during a specific time interval, all as described in this report – on a screening level basis. Unless otherwise stated, the findings cannot be extended to previous or future Project Area conditions, portions of the Project Area, which were unavailable for direct investigation, subsurface locations which were not investigated directly, or chemical parameters, materials or analysis which were not addressed. WSP has used its professional judgment in analyzing this information and formulating these conclusions.

WSP makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.


This Report is also subject to the further Standard Limitations contained in Appendix E.

9.0 CLOSURE


We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please do not hesitate to contact us.

Signature Page

WSP Canada Inc.



Linnea Mamone, B.Sc., EPT
Environmental Scientist



Su-Kim Roy, M.Eng., P.Eng., QP(ESA)
Principal Environmental Engineer

Figure

Appendix A

2024 Soil Quality Screening Memo



March 15, 2024

CA0010794.5758 Task 102

Charles Kwong
National Director, Infrastructure Facilities
WSP Canada Limited
100 Commerce Valley Drive
Thornhill, Ontario, L3T 0A1

Subject: Soil Quality Screening Memo – Dufferin Street Transfer Station, Pavement
Rehabilitation, 35 Vanley Crescent,
North York, Ontario

1 INTRODUCTION

WSP Canada Inc. (WSP) is pleased to provide this Soil Quality Screening memo summarizing the results of a limited soil quality screening program completed during a joint geotechnical-environmental drilling investigation at the Dufferin Street Transfer Station located at 35 Vanley Crescent, North York, Ontario (the “Site”).

The soil quality screening program was completed to provide a preliminary assessment of the expected environmental quality of the soils within the project area beneath the asphalt covered areas on-site to inform potential re-use options during future pavement rehabilitation and construction works. The field program was completed in general accordance with Ontario Regulation 406/19. However, it is noted that at this time the potential volume of excess soils to be generated by the project works is unknown. As this is the case, supplemental soil sampling and reporting may be required to support the construction works in the future, and project registration with the Resource Productivity and Recovery Authority may be required if the project is not eligible for exemption from registration as outlined in the exemption provisions summarized in Schedule 2 of Ontario Regulation (O.Reg.) 406/19.

2 FIELD SAMPLING

On February 10th, 14th, & 20th, 2024 WSP field staff conducted a joint environmental and geotechnical drilling investigation at the Dufferin Street Transfer Station. The environmental scope of work consisted of advancing five boreholes to a maximum depth of 6.71 meters below grade surface (mbgs) and collection of selected soil samples for analysis of the previously identified parameters of concern. Environmental soil sampling was completed at boreholes BH23-02, BH23-09, BH23-11, BH23-12 and BH23-13.

One soil sample was submitted for analysis of the parameters of concern from each of BH23-02, BH23-09 and BH23-11 which were advanced to depths of approximately 1.5 mbgs. Three

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“Effective September 21, 2022, Wood Environment & Infrastructure Solutions Canada Limited is now operating as WSP E&I Canada Limited. No other aspects of our legal entity, contractual terms or capabilities have changed in relation to this report submission.”

samples were submitted from BH23-12 and two samples were submitted from BH23-13, which were advanced to depths of approximately 5.3 – 6.7 mbgs. All samples were submitted based on field observations and headspace screening measurements. WSP also submitted two composite Toxicity Characteristic Leaching Procedure samples, obtained from boreholes BH23-12 and BH23-13, to confirm waste class to inform future waste disposal options. Samples submitted to the analytical laboratory for analysis of the parameters of concern, field screening readings and soil stratigraphic units observed are summarized in Table 1.

Table 1 – Soil Sampling Field Investigation and summary of field screening observations.

Sample ID	Depth (mbgs)	Soil Description	COV (ppm)	TOV (ppm)	Submitted for Analytical Testing	Parameters of Concern
BH23-02 SS1	0.00-0.61	Brown sand	0	0	Yes	M&I, BTEX, PHC F1-F4, VOCs, SVOCs, pH, EC, SAR, PCBs
BH23-09 SS2	0.91-1.52	Black organics, trace gravel, brown clay	0	55	Yes	M&I, BTEX, PHC F1-F4, VOCs, SVOCs, pH, EC, SAR, PCBs
BH23-11 SS1	0.00-0.61	Brown sand, trace gravel	135	222	Yes	M&I, BTEX, PHC F1-F4, VOCs, SVOCs, pH, EC, SAR, PCBs
BH23-12 SS1	0.00-0.61	Dark brown sandy silty clay with gravel	0	0	Yes	M&I, SVOCS, PCBs, pH, EC, SAR,
BH23-12 SS4	2.29-2.90	Dark sand and gravel, trace glass	25	49	Yes	M&I, BTEX, PHC F1-F4, VOCs, SVOCs, pH, EC, SAR, PCBs
BH23-12 SS8	6.10-6.71	Dark silty sand with gravel, trace clay, glass pieces	115	200	Yes	BTEX, PHC F1-F4, VOCs
BH23-13 SS3	1.52-2.13	Brown sand, trace gravel	0	40	Yes	M&I, BTEX, PHC F1-F4, VOCs, SVOCs, pH, EC, SAR, PCBs
BH23-13 SS6	3.81-4.27	Brown sand, trace gravel, grey clay	0	45	Yes	M&I, BTEX, PHC F1-F4, VOCs, SVOCs, pH, EC, SAR, PCBs
BH23-12 TCLP	N/A composite	N/A composite	-	-	Yes	Metals, VOCs, benzo(a)pyrene, ignitability and, PCBs.
BH23-13 TCLP	N/A composite	N/A composite	-	-	Yes	Metals, VOCs, benzo(a)pyrene, ignitability and, PCBs.

Notes:

M&I - metals and inorganics (M&I)

BTEX - benzene, toluene, ethylbenzene, and xylenes,

PHC F1-F4 - petroleum hydrocarbons (PHCs)

VOCs - volatile organic compounds

SVOCs – semivolatile organic compounds

EC - electrical conductivity

SAR - sodium adsorption ratio

PCBs - polychlorinated biphenyls

The borehole locations are included in the geotechnical investigation report presented under separate cover.

All samples were screened in the field for apparent evidence of environmental impact and staining. Soil headspace vapour readings were measured using an RKI Eagle 2 combustible gas meter, calibrated at the start of the field work to a known hexane and isobutylene standard. The RKI Eagle 2 was operated in the methane elimination mode. Total organic vapour (TOV) readings ranged from 0 to 222 parts per million by volume (ppm). Combustible organic vapour (COV) readings ranged from 0 to 135 ppm.

Soil samples were placed in laboratory supplied glass sample jars and stored in coolers with ice for laboratory analysis. Samples selected for volatile parameters including VOCs and PHC F1 were micro-cored and field preserved using methanol charged vials supplied by the analytical laboratory to minimize potential losses due to volatilization.

The samples were collected in accordance with strict environmental sampling protocols to minimize loss of volatile organics and to ensure reliable and representative results. Disposable nitrile gloves were used and replaced during the sampling activities. All soil sampling equipment (stainless steel spoons, trowels etc.) were thoroughly decontaminated between soil sample locations to prevent potential cross-contamination. Decontamination activities included:

- Physical removal of any adhered debris;
- Wash/scrub in Alconox soap solution;
- Methanol rinse; and,
- Air dry

3 ANALYSIS COMPARISON

The sample results were compared to the relevant Standards provided in the Ministry of the Environment, Conservation and Parks (MECP) document entitled "Rules for Soil Management and Excess Soil Quality Standards (ESQS)", 2022 (Rules Document) and to O. Reg 153/04 Site Condition Standards (SCS) as described in the "Soil, Ground Water and Sediment Standards for Use under Part XV.1 of the Environmental Protection Act" dated 15 April 2011. The Rules for Soil Management were adopted by reference in Ontario Regulation 406/19 (On-Site and Excess Soil Management) made under the Environmental Protection Act, R.S.O. 1990, c. E.19 (EPA) (hereafter, O.Reg. 406/19).

In order to determine suitability of soil for on site re-use, analytical soil quality data was compared to:

- Table 1: Full Depth Background SCS for Residential/ Parkland/ Institutional/ Industrial/ Commercial /Community property use (Table 1 RPI/ICC SCS) to evaluate re-use as inert fill; and,
- Table 3: Full Depth Generic SCS for Industrial/Commercial/Community property use non-potable groundwater condition (Table 3 ICC SCS).

In order to determine suitability of soil for off-site beneficial re-use, analytical soil quality data was compared to:

- Table 2.1 Full Depth Excess Soil Quality Standards in Potable Ground Water Condition, for Residential/Parkland/Industrial Property Use (Table 2.1 RPI ESQS); and,
- Table 3.1 Full Depth Excess Soil Quality Standards in a Non-Potable Ground Water Condition, for Industrial/Commercial/Community Property Use (Table 3.1 ICC ESQS).

All soil samples were submitted to Bureau Veritas Laboratories (BV) located in Mississauga, Ontario for analysis. BV is accredited by the Canadian Association for Laboratory Accreditation Inc. (CALA) in accordance with ISO/IEC 17025:2017 – “General Requirements for the Competence of Testing and Calibration Laboratories” for the tested parameters. Laboratory Certificates of Analysis are provided in Attachment A.

4 SOIL ANALYTICAL RESULTS

Reuse as inert fill

The concentrations in the soil samples submitted exceeded various parameters for metals, VOCs, PHCs, and M&I for Table 1 RPI/ICC SCS in all borehole locations. The analytical data is provided in Attachment B.

On-site Re-use

The concentrations in the soil samples submitted from BH23-02, BH23-11 and BH23-13 were below the Table 3 ICC SCS for all parameters with the exception of electrical conductivity (EC) and/or Sodium Adsorption Ratio (SAR). The concentrations in soil samples submitted from BH23-09 exceeded the Table 3 ICC SCS for lead and zinc in addition to SAR. The concentrations in soil samples submitted from BH23-12 exceeded the Table 3 ICC SCS for various metal parameters, PHC F4 as well as for EC and/or SAR. The analytical data is provided in Attachment C.

Off-site Beneficial Re-use

The concentrations in the soil samples submitted from BH23-02 were below the Table 2.1 RPI ESQS for all parameters with the exception of EC and SAR. The concentrations in soil samples submitted from BH23-09, BH23-11, BH23-12 and BH23-13 exceeded the Table 2.1 RPI ESQS for various metals, VOCs and PHC parameters. The analytical data is provided in Attachment D.

The concentrations in the soil samples submitted from BH23-02 were below the Table 3.1 ICC ESQS for all parameters with the exception of EC and SAR. The concentrations in soil samples submitted from BH23-09, BH23-11, BH23-12 and BH23-13 exceeded the Table 3.1 ICC ESQS for various metals, VOCs and PHC parameters. The analytical data is provided in Attachment E.

Waste Classification

There were no exceedances of the O.Reg. 347 Schedule 4 Leachate Quality Criteria and the samples are not ignitable. As such, soils may be classified as non-hazardous waste.

5 SUMMARY OF REUSE OPTIONS

5.1 RE-USE AS INERT FILL

Table 1 RPI/ICC exceedances were observed for various parameters in soil samples collected from all borehole locations. As such, the soil is not considered inert fill and may not be reused on or offsite as inert fill.

5.2 ON-SITE REUSE

As only EC and/or SAR exceedances to the Table 3 ICC SCS were observed in soil samples obtained from locations BH23-03, BH23-11 and BH23-13, soil excavated from the vicinity of these boreholes may be reused on-site considering the provisions regarding reuse of salt impacted soils as stipulated in Section 49.1.1 of O.Reg. 153/04, namely: if an applicable site condition standard is exceeded at a property solely because a substance has been applied to surfaces for the safety of vehicular or pedestrian traffic under conditions of snow or ice or both, the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act. *As such, the EC and/or SAR exceedances observed in these borehole locations are not seemed to represent contamination for soils remaining on-site.*

Table 3 ICC SCS exceedances were observed for various parameters, excluding EC and/or SAR, for soil samples collected from boreholes BH23-09 and BH23-12. As such, soil excavated from the vicinity of these boreholes should be removed from the site for landfill disposal unless Risk Management Measures (RMM) are developed and put in place to ensure that no adverse effects to human health or the environment results from the on-site reuse. RMMs can be implemented to control potential contaminant exposure pathways and may include administrative and/or engineered solutions.

5.3 OFF-SITE BENEFICIAL REUSE

Table 2.1 RPI ESQS

Based on the exceedances of the Table 2.1 RPI ESQS in most borehole locations (BH23-09, BH23-11, BH23-12, and BH23-13) for parameters other than EC and/or SAR, excess soil generated from the project in the vicinity of these locations is not suitable for beneficial reuse at a Table 2.1 RPI site.

As only EC and SAR exceedances of the Table 2.1 RPI ESQS were observed in soil samples collected from BH23-2, excess soil generated from the project in the vicinity of this borehole location may be suitable for beneficial reuse at a Table 2.1 RPI site, providing the provisions regarding reuse of salt impacted soil, as summarized in the Rules for Soil Management and Excess Soil Quality Standards (Rules Document).

Table 3.1 ICC ESQS

Based on the exceedances of the Table 3.1 ICC ESQS in most borehole locations (BH23-09, BH23-11, BH23-12, and BH23-13) for parameters other than EC and/or SAR, excess soil generated from the project in the vicinity of these locations is not suitable for beneficial reuse at a Table 3.1 ICC site.

As only EC and SAR exceedances of the Table 3.1 ICC ESQS were observed in soil samples collected from BH23-2, excess soil generated from the project in the vicinity of this borehole

location may be suitable for beneficial reuse at a Table 3.1 ICC site, providing the provisions regarding reuse of salt impacted soil, as summarized in the Rules for Soil Management and Excess Soil Quality Standards (Rules Document).

5.4 LANDFILL DISPOSAL

Based on the composite TCLP sample results the soil is classified as non-hazardous waste and may be disposed of at an MECP licensed landfill.

6 CLOSURE

This report was prepared for the exclusive use of the client and is intended to provide a preliminary soil quality screening for soil samples collected from within the Project Area from the five borehole locations as summarized herein. Any use which a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of the third party. Should additional parties require reliance on this report, written authorization from WSP will be required. With respect to third parties, WSP has no liability or responsibility for losses of any kind whatsoever, including direct or consequential financial effects on transactions or property values, or requirements for follow-up actions and costs.

The report is based on data and information provided to WSP by the client and provided reference documents and site plans. Except as otherwise maybe specified, WSP disclaims any obligation to update this report for events taking place, or with respect to information that becomes available to WSP after the time during which WSP completed the preliminary soil quality screening.

WSP makes no other representations whatsoever, including those concerning the legal significance of its findings, or as to other legal matters touched on in this report, including, but not limited to, ownership of any property, or the application of any law to the facts set forth herein. With respect to regulatory compliance issues, regulatory statutes are subject to interpretation and change. Such interpretations and regulatory changes should be reviewed with legal counsel.

We trust that the information presented in this report meets your current requirements. Should you have any questions, or concerns, please contact the undersigned.

Yours truly,

WSP Canada Limited



Rebecca Rodricks
Environmental Technician



Su-Kim Roy, M.Eng., P.Eng., QP(ESA)
Principal Environmental Engineer

Attachment A: Laboratory Certificate of Analysis

Attachment B: Table 1 RPI/ICC SCS Results

Attachment C: Table 3 ICC SCS Results

Attachment D: Table 2.1 RPI ESQS Results

Attachment E: Table 3.1 ICC ESQS Results

Attachment A

Laboratory Certificate of Analysis



Attention: Michael Hu

WSP Canada Inc.
Steelcase Road
351 Steelcase Road West,
Units 10 and 12
Markham, ON
Canada L3R 4H9

Your P.O. #: CA0010794.5758
Your Project #: CA0010794.5758 task 102
Site#: Dufferin St Transfer Station
Your C.O.C. #: C#975579-01-01

Report Date: 2024/02/22

Report #: R8037764

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C445120

Received: 2024/02/13, 14:30

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	3	N/A	2024/02/20	CAM SOP-00301	EPA 8270D m
ABN Compounds in soil by GC/MS	3	2024/02/16	2024/02/17	CAM SOP-00301	EPA 8270 m
Hot Water Extractable Boron	3	2024/02/16	2024/02/16	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	3	N/A	2024/02/16		EPA 8260C m
Free (WAD) Cyanide	3	2024/02/15	2024/02/16	CAM SOP-00457	OMOE E3015 m
Conductivity	3	2024/02/16	2024/02/16	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	3	2024/02/16	2024/02/16	CAM SOP-00436	EPA 3060A/7199 m
Dinitrotoluene Sum	3	2024/02/14	2024/02/20	CAM SOP - 00301	EPA 8270
Petroleum Hydrocarbons F2-F4 in Soil (2)	3	2024/02/15	2024/02/16	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	3	2024/02/16	2024/02/16	CAM SOP-00447	EPA 6020B m
Moisture	3	N/A	2024/02/15	CAM SOP-00445	Carter 2nd ed 70.2 m
Polychlorinated Biphenyl in Soil	2	2024/02/15	2024/02/16	CAM SOP-00309	EPA 8082A m
Polychlorinated Biphenyl in Soil	1	2024/02/15	2024/02/20	CAM SOP-00309	EPA 8082A m
pH CaCl2 EXTRACT	3	2024/02/15	2024/02/15	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2024/02/21	CAM SOP-00102	EPA 6010C
Sodium Adsorption Ratio (SAR)	1	N/A	2024/02/22	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	3	N/A	2024/02/15	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.



Your P.O. #: CA0010794.5758
 Your Project #: CA0010794.5758 task 102
 Site#: Dufferin St Transfer Station
 Your C.O.C. #: C#975579-01-01

Attention: Michael Hu

WSP Canada Inc.
 Steelcase Road
 351 Steelcase Road West,
 Units 10 and 12
 Markham, ON
 Canada L3R 4H9

Report Date: 2024/02/22

Report #: R8037764

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C445120

Received: 2024/02/13, 14:30

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

(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

22 Feb 2024 15:14:58

Please direct all questions regarding this Certificate of Analysis to:

Ankita Bhalla, Project Manager

Email: Ankita.Bhalla@bureauveritas.com

Phone# (905) 817-5700

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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.

Total Cover Pages : 2

Page 2 of 22

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

Microbiology testing is conducted at 6660 Campobello Rd. Chemistry testing is conducted at 6740 Campobello Rd.



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VERITAS

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

O.REG 406 EXCESS SOIL BULK INORGANICS (SOIL)

Bureau Veritas ID		YJL602		YJL605		YJL606		
Sampling Date		2024/02/10		2024/02/10		2024/02/10		
COC Number		C#975579-01-01		C#975579-01-01		C#975579-01-01		
	UNITS	BH23-02-SS1	QC Batch	BH23-09-SS2	QC Batch	BH23-11-SS1	RDL	QC Batch
Calculated Parameters								
Sodium Adsorption Ratio	N/A	46	9220358	13	9220358	29		9220358
Inorganics								
Conductivity	mS/cm	2.0	9224564	1.3	9224564	1.8	0.002	9224564
Available (CaCl ₂) pH	pH	8.01	9222140	7.93	9221704	7.93		9222140
WAD Cyanide (Free)	ug/g	<0.01	9223762	<0.01	9223762	<0.01	0.01	9223762
Chromium (VI)	ug/g	<0.18	9224699	<0.18	9224699	<0.18	0.18	9224699
Metals								
Hot Water Ext. Boron (B)	ug/g	0.19	9224444	2.0	9224444	0.15	0.050	9224444
Acid Extractable Antimony (Sb)	ug/g	<0.20	9224796	5.8	9224796	<0.20	0.20	9224796
Acid Extractable Arsenic (As)	ug/g	1.8	9224796	3.7	9224796	1.0	1.0	9224796
Acid Extractable Barium (Ba)	ug/g	51	9224796	150	9224796	24	0.50	9224796
Acid Extractable Beryllium (Be)	ug/g	0.33	9224796	0.49	9224796	<0.20	0.20	9224796
Acid Extractable Boron (B)	ug/g	5.2	9224796	14	9224796	<5.0	5.0	9224796
Acid Extractable Cadmium (Cd)	ug/g	<0.10	9224796	1.3	9224796	<0.10	0.10	9224796
Acid Extractable Chromium (Cr)	ug/g	15	9224796	58	9224796	6.9	1.0	9224796
Acid Extractable Cobalt (Co)	ug/g	6.2	9224796	11	9224796	4.4	0.10	9224796
Acid Extractable Copper (Cu)	ug/g	13	9224796	150	9224796	6.3	0.50	9224796
Acid Extractable Lead (Pb)	ug/g	7.8	9224796	280	9224796	4.9	1.0	9224796
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	9224796	2.8	9224796	<0.50	0.50	9224796
Acid Extractable Nickel (Ni)	ug/g	14	9224796	28	9224796	5.7	0.50	9224796
Acid Extractable Selenium (Se)	ug/g	<0.50	9224796	<0.50	9224796	<0.50	0.50	9224796
Acid Extractable Silver (Ag)	ug/g	<0.20	9224796	1.6	9224796	<0.20	0.20	9224796
Acid Extractable Thallium (Tl)	ug/g	0.11	9224796	0.11	9224796	0.050	0.050	9224796
Acid Extractable Uranium (U)	ug/g	0.49	9224796	0.50	9224796	0.33	0.050	9224796
Acid Extractable Vanadium (V)	ug/g	21	9224796	25	9224796	15	5.0	9224796
Acid Extractable Zinc (Zn)	ug/g	37	9224796	470	9224796	19	5.0	9224796
Acid Extractable Mercury (Hg)	ug/g	<0.050	9224796	0.081	9224796	<0.050	0.050	9224796
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



O.REG 406 EXCESS SOIL BULK PCBS (SOIL)

Bureau Veritas ID		YJL602	YJL605	YJL606		
Sampling Date		2024/02/10	2024/02/10	2024/02/10		
COC Number		C#975579-01-01	C#975579-01-01	C#975579-01-01		
	UNITS	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	RDL	QC Batch
PCBs						
Aroclor 1242	ug/g	<0.010	0.027	<0.010	0.010	9223752
Aroclor 1248	ug/g	<0.010	<0.010	<0.010	0.010	9223752
Aroclor 1254	ug/g	<0.010	<0.010	<0.010	0.010	9223752
Aroclor 1260	ug/g	<0.010	<0.010	<0.010	0.010	9223752
Total PCB	ug/g	<0.010	0.027	<0.010	0.010	9223752
Surrogate Recovery (%)						
Decachlorobiphenyl	%	83	85	82		9223752
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

O.REG 406 EXCESS SOIL BULK SVOCS (SOIL)

Bureau Veritas ID		YJL602		YJL605	YJL606		
Sampling Date		2024/02/10		2024/02/10	2024/02/10		
COC Number		C#975579-01-01		C#975579-01-01	C#975579-01-01		
	UNITS	BH23-02-SS1	RDL	BH23-09-SS2	BH23-11-SS1	RDL	QC Batch
Semivolatile Organics							
1,2,4-Trichlorobenzene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
1-Methylnaphthalene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
2,4,5-Trichlorophenol	ug/g	<0.08	0.08	<0.2	<0.2	0.2	9224443
2,4,6-Trichlorophenol	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
2,4-Dichlorophenol	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
2,4-Dimethylphenol	ug/g	<0.2	0.2	<0.4	<0.4	0.4	9224443
2,4-Dinitrophenol	ug/g	<0.5	0.5	<1	<1	1	9224443
2,4-Dinitrotoluene	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
2,6-Dinitrotoluene	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
2-Chlorophenol	ug/g	<0.08	0.08	<0.2	<0.2	0.2	9224443
2-Methylnaphthalene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
3,3'-Dichlorobenzidine	ug/g	<0.5	0.5	<1	<1	1	9224443
Acenaphthene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
Acenaphthylene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Anthracene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
Benzo(a)anthracene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Benzo(a)pyrene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Benzo(b,j)fluoranthene	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
Benzo(g,h,i)perylene	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
Benzo(k)fluoranthene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
Biphenyl	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Bis(2-chloroethyl)ether	ug/g	<0.2	0.2	<0.4	<0.4	0.4	9224443
Bis(2-chloroisopropyl)ether	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
Bis(2-ethylhexyl)phthalate	ug/g	<1	1	<2	<2	2	9224443
Chrysene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Dibenzo(a,h)anthracene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Diethyl phthalate	ug/g	<0.2	0.2	<0.4	<0.4	0.4	9224443
Dimethyl phthalate	ug/g	<0.2	0.2	<0.4	<0.4	0.4	9224443
Fluoranthene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Fluorene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
Indeno(1,2,3-cd)pyrene	ug/g	<0.08	0.08	<0.2	<0.2	0.2	9224443
Naphthalene	ug/g	<0.03	0.03	<0.06	<0.06	0.06	9224443
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



BUREAU
VERITAS

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

O.REG 406 EXCESS SOIL BULK SVOCS (SOIL)

Bureau Veritas ID		YJL602		YJL605	YJL606		
Sampling Date		2024/02/10		2024/02/10	2024/02/10		
COC Number		C#975579-01-01		C#975579-01-01	C#975579-01-01		
	UNITS	BH23-02-SS1	RDL	BH23-09-SS2	BH23-11-SS1	RDL	QC Batch
p-Chloroaniline	ug/g	<0.2	0.2	<0.4	<0.4	0.4	9224443
Pentachlorophenol	ug/g	<0.1	0.1	<0.2	<0.2	0.2	9224443
Phenanthrene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Phenol	ug/g	<0.09	0.09	<0.2	<0.2	0.2	9224443
Pyrene	ug/g	<0.05	0.05	<0.1	<0.1	0.1	9224443
Calculated Parameters							
2,4- & 2,6-Dinitrotoluene	ug/g	<0.14	0.14	<0.28	<0.28	0.28	9220718
Methylnaphthalene, 2-(1-)	ug/g	<0.042	0.042	<0.085	<0.085	0.085	9219961
Surrogate Recovery (%)							
2,4,6-Tribromophenol	%	57		64	86		9224443
2-Fluorobiphenyl	%	74		77	65		9224443
D14-Terphenyl (FS)	%	104		105	104		9224443
D5-Nitrobenzene	%	62		67	59		9224443
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							



BUREAU
VERITAS

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YJL602	YJL605	YJL606		
Sampling Date		2024/02/10	2024/02/10	2024/02/10		
COC Number		C#975579-01-01	C#975579-01-01	C#975579-01-01		
	UNITS	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	<0.050	<0.050	0.050	9219554
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.49	<0.49	<0.49	0.49	9222165
Benzene	ug/g	<0.0060	<0.0060	<0.0060	0.0060	9222165
Bromodichloromethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Bromoform	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Bromomethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Carbon Tetrachloride	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Chlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Chloroform	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Dibromochloromethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,2-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,3-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,4-Dichlorobenzene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,1-Dichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,2-Dichloroethane	ug/g	<0.049	<0.049	<0.049	0.049	9222165
1,1-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
cis-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
trans-1,2-Dichloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,2-Dichloropropane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
cis-1,3-Dichloropropene	ug/g	<0.030	<0.030	<0.030	0.030	9222165
trans-1,3-Dichloropropene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Ethylbenzene	ug/g	<0.010	0.034	<0.010	0.010	9222165
Ethylene Dibromide	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Hexane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Methylene Chloride(Dichloromethane)	ug/g	<0.049	<0.049	<0.049	0.049	9222165
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	<0.40	<0.40	0.40	9222165
Methyl Isobutyl Ketone	ug/g	<0.40	<0.40	<0.40	0.40	9222165
Methyl t-butyl ether (MTBE)	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Styrene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,1,1,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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VERITAS

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YJL602	YJL605	YJL606		
Sampling Date		2024/02/10	2024/02/10	2024/02/10		
COC Number		C#975579-01-01	C#975579-01-01	C#975579-01-01		
	UNITS	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	RDL	QC Batch
1,1,2,2-Tetrachloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Tetrachloroethylene	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Toluene	ug/g	<0.020	<0.020	<0.020	0.020	9222165
1,1,1-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
1,1,2-Trichloroethane	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Trichloroethylene	ug/g	<0.010	<0.010	<0.010	0.010	9222165
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	<0.040	<0.040	0.040	9222165
Vinyl Chloride	ug/g	<0.019	<0.019	<0.019	0.019	9222165
p+m-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	9222165
o-Xylene	ug/g	<0.020	<0.020	<0.020	0.020	9222165
Total Xylenes	ug/g	<0.020	<0.020	<0.020	0.020	9222165
F1 (C6-C10)	ug/g	<10	<10	<10	10	9222165
F1 (C6-C10) - BTEX	ug/g	<10	<10	<10	10	9222165
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	<10	17	38	10	9222926
F3 (C16-C34 Hydrocarbons)	ug/g	<50	200	120	50	9222926
F4 (C34-C50 Hydrocarbons)	ug/g	<50	110	<50	50	9222926
Reached Baseline at C50	ug/g	Yes	Yes	Yes		9222926
Surrogate Recovery (%)						
o-Terphenyl	%	96	96	96		9222926
4-Bromofluorobenzene	%	97	99	99		9222165
D10-o-Xylene	%	91	94	89		9222165
D4-1,2-Dichloroethane	%	95	97	96		9222165
D8-Toluene	%	93	93	92		9222165
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		YJL602	YJL605	YJL606		
Sampling Date		2024/02/10	2024/02/10	2024/02/10		
COC Number		C#975579-01-01	C#975579-01-01	C#975579-01-01		
	UNITS	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	RDL	QC Batch
Inorganics						
Moisture	%	13	11	7.8	1.0	9221718
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

TEST SUMMARY

Bureau Veritas ID: YJL602
Sample ID: BH23-02-SS1
Matrix: Soil

Collected: 2024/02/10
Shipped:
Received: 2024/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9219961	N/A	2024/02/20	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9224443	2024/02/16	2024/02/17	Adriana Zurita
Hot Water Extractable Boron	ICP	9224444	2024/02/16	2024/02/16	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9219554	N/A	2024/02/16	Automated Statchk
Free (WAD) Cyanide	TECH	9223762	2024/02/15	2024/02/16	Jency Sara Johnson
Conductivity	AT	9224564	2024/02/16	2024/02/16	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9224699	2024/02/16	2024/02/16	Sousan Besharatlou
Dinitrotoluene Sum	CALC	9220718	2024/02/20	2024/02/20	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9222926	2024/02/15	2024/02/16	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9224796	2024/02/16	2024/02/16	Viviana Canzonieri
Moisture	BAL	9221718	N/A	2024/02/15	Ibadat Preet
Polychlorinated Biphenyl in Soil	GC/ECD	9223752	2024/02/15	2024/02/16	Akruti Patel
pH CaCl2 EXTRACT	AT	9222140	2024/02/15	2024/02/15	Vidhi Khatri
Sodium Adsorption Ratio (SAR)	CALC/MET	9220358	N/A	2024/02/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9222165	N/A	2024/02/15	Xueming Jiang

Bureau Veritas ID: YJL605
Sample ID: BH23-09-SS2
Matrix: Soil

Collected: 2024/02/10
Shipped:
Received: 2024/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9219961	N/A	2024/02/20	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9224443	2024/02/16	2024/02/17	Adriana Zurita
Hot Water Extractable Boron	ICP	9224444	2024/02/16	2024/02/16	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9219554	N/A	2024/02/16	Automated Statchk
Free (WAD) Cyanide	TECH	9223762	2024/02/15	2024/02/16	Jency Sara Johnson
Conductivity	AT	9224564	2024/02/16	2024/02/16	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9224699	2024/02/16	2024/02/16	Sousan Besharatlou
Dinitrotoluene Sum	CALC	9220718	2024/02/20	2024/02/20	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9222926	2024/02/15	2024/02/16	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9224796	2024/02/16	2024/02/16	Viviana Canzonieri
Moisture	BAL	9221718	N/A	2024/02/15	Ibadat Preet
Polychlorinated Biphenyl in Soil	GC/ECD	9223752	2024/02/15	2024/02/20	Akruti Patel
pH CaCl2 EXTRACT	AT	9221704	2024/02/15	2024/02/15	Vidhi Khatri
Sodium Adsorption Ratio (SAR)	CALC/MET	9220358	N/A	2024/02/22	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9222165	N/A	2024/02/15	Xueming Jiang

Bureau Veritas ID: YJL606
Sample ID: BH23-11-SS1
Matrix: Soil

Collected: 2024/02/10
Shipped:
Received: 2024/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9219961	N/A	2024/02/20	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9224443	2024/02/16	2024/02/17	Adriana Zurita



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Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

TEST SUMMARY

Bureau Veritas ID: YJL606
Sample ID: BH23-11-SS1
Matrix: Soil

Collected: 2024/02/10
Shipped:
Received: 2024/02/13

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Hot Water Extractable Boron	ICP	9224444	2024/02/16	2024/02/16	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9219554	N/A	2024/02/16	Automated Statchk
Free (WAD) Cyanide	TECH	9223762	2024/02/15	2024/02/16	Jency Sara Johnson
Conductivity	AT	9224564	2024/02/16	2024/02/16	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9224699	2024/02/16	2024/02/16	Sousan Besharatlou
Dinitrotoluene Sum	CALC	9220718	2024/02/20	2024/02/20	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9222926	2024/02/15	2024/02/16	Agnieszka Brzuzy-Snopko
Acid Extractable Metals by ICPMS	ICP/MS	9224796	2024/02/16	2024/02/16	Viviana Canzonieri
Moisture	BAL	9221718	N/A	2024/02/15	Ibadat Preet
Polychlorinated Biphenyl in Soil	GC/ECD	9223752	2024/02/15	2024/02/16	Akruti Patel
pH CaCl2 EXTRACT	AT	9222140	2024/02/15	2024/02/15	Vidhi Khatri
Sodium Adsorption Ratio (SAR)	CALC/MET	9220358	N/A	2024/02/21	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9222165	N/A	2024/02/15	Xueming Jiang



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.0°C
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Sample YJL605 [BH23-09-SS2] : ABN Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample YJL606 [BH23-11-SS1] : ABN Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Results relate only to the items tested.

BUREAU
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Bureau Veritas Job #: C445120

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9222165	4-Bromofluorobenzene	2024/02/15	103	60 - 140	110	60 - 140	99	%		
9222165	D10-o-Xylene	2024/02/15	113	60 - 130	107	60 - 130	106	%		
9222165	D4-1,2-Dichloroethane	2024/02/15	95	60 - 140	96	60 - 140	99	%		
9222165	D8-Toluene	2024/02/15	103	60 - 140	109	60 - 140	92	%		
9222926	o-Terphenyl	2024/02/15	93	60 - 130	88	60 - 130	94	%		
9223752	Decachlorobiphenyl	2024/02/16	84	60 - 130	96	60 - 130	92	%		
9224443	2,4,6-Tribromophenol	2024/02/16	92	50 - 130	89	50 - 130	74	%		
9224443	2-Fluorobiphenyl	2024/02/16	83	50 - 130	79	50 - 130	75	%		
9224443	D14-Terphenyl (FS)	2024/02/16	103	50 - 130	100	50 - 130	99	%		
9224443	D5-Nitrobenzene	2024/02/16	71	50 - 130	77	50 - 130	70	%		
9221704	Available (CaCl ₂) pH	2024/02/15			100	97 - 103			0.66	N/A
9221718	Moisture	2024/02/15							0	20
9222140	Available (CaCl ₂) pH	2024/02/15			100	97 - 103			0.46	N/A
9222165	1,1,1,2-Tetrachloroethane	2024/02/15	96	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9222165	1,1,1-Trichloroethane	2024/02/15	91	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9222165	1,1,2,2-Tetrachloroethane	2024/02/15	95	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9222165	1,1,2-Trichloroethane	2024/02/15	85	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9222165	1,1-Dichloroethane	2024/02/15	92	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9222165	1,1-Dichloroethylene	2024/02/15	84	60 - 140	87	60 - 130	<0.040	ug/g	NC	50
9222165	1,2-Dichlorobenzene	2024/02/15	92	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9222165	1,2-Dichloroethane	2024/02/15	84	60 - 140	85	60 - 130	<0.049	ug/g	NC	50
9222165	1,2-Dichloropropane	2024/02/15	90	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9222165	1,3-Dichlorobenzene	2024/02/15	97	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9222165	1,4-Dichlorobenzene	2024/02/15	106	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9222165	Acetone (2-Propanone)	2024/02/15	84	60 - 140	85	60 - 140	<0.49	ug/g	NC	50
9222165	Benzene	2024/02/15	84	60 - 140	87	60 - 130	<0.0060	ug/g	NC	50
9222165	Bromodichloromethane	2024/02/15	97	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9222165	Bromoform	2024/02/15	90	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9222165	Bromomethane	2024/02/15	82	60 - 140	83	60 - 140	<0.040	ug/g	NC	50
9222165	Carbon Tetrachloride	2024/02/15	89	60 - 140	90	60 - 130	<0.040	ug/g	NC	50

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VERITAS

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9222165	Chlorobenzene	2024/02/15	98	60 - 140	103	60 - 130	<0.040	ug/g	NC	50
9222165	Chloroform	2024/02/15	96	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9222165	cis-1,2-Dichloroethylene	2024/02/15	95	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9222165	cis-1,3-Dichloropropene	2024/02/15	91	60 - 140	93	60 - 130	<0.030	ug/g	NC	50
9222165	Dibromochloromethane	2024/02/15	91	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9222165	Dichlorodifluoromethane (FREON 12)	2024/02/15	63	60 - 140	65	60 - 140	<0.040	ug/g	NC	50
9222165	Ethylbenzene	2024/02/15	84	60 - 140	90	60 - 130	<0.010	ug/g	NC	50
9222165	Ethylene Dibromide	2024/02/15	94	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9222165	F1 (C6-C10) - BTEX	2024/02/15					<10	ug/g	NC	30
9222165	F1 (C6-C10)	2024/02/15	79	60 - 140	88	80 - 120	<10	ug/g	NC	30
9222165	Hexane	2024/02/15	77	60 - 140	84	60 - 130	<0.040	ug/g	NC	50
9222165	Methyl Ethyl Ketone (2-Butanone)	2024/02/15	90	60 - 140	93	60 - 140	<0.40	ug/g	NC	50
9222165	Methyl Isobutyl Ketone	2024/02/15	85	60 - 140	89	60 - 130	<0.40	ug/g	NC	50
9222165	Methyl t-butyl ether (MTBE)	2024/02/15	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9222165	Methylene Chloride(Dichloromethane)	2024/02/15	98	60 - 140	99	60 - 130	<0.049	ug/g	NC	50
9222165	o-Xylene	2024/02/15	79	60 - 140	85	60 - 130	<0.020	ug/g	NC	50
9222165	p+m-Xylene	2024/02/15	90	60 - 140	97	60 - 130	<0.020	ug/g	NC	50
9222165	Styrene	2024/02/15	97	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9222165	Tetrachloroethylene	2024/02/15	95	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9222165	Toluene	2024/02/15	87	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
9222165	Total Xylenes	2024/02/15					<0.020	ug/g	NC	50
9222165	trans-1,2-Dichloroethylene	2024/02/15	92	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9222165	trans-1,3-Dichloropropene	2024/02/15	96	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9222165	Trichloroethylene	2024/02/15	98	60 - 140	101	60 - 130	<0.010	ug/g	NC	50
9222165	Trichlorofluoromethane (FREON 11)	2024/02/15	88	60 - 140	90	60 - 130	<0.040	ug/g	NC	50
9222165	Vinyl Chloride	2024/02/15	80	60 - 140	84	60 - 130	<0.019	ug/g	NC	50
9222926	F2 (C10-C16 Hydrocarbons)	2024/02/16	103	60 - 130	101	80 - 120	<10	ug/g	NC	30
9222926	F3 (C16-C34 Hydrocarbons)	2024/02/16	103	60 - 130	100	80 - 120	<50	ug/g	NC	30
9222926	F4 (C34-C50 Hydrocarbons)	2024/02/16	105	60 - 130	102	80 - 120	<50	ug/g	NC	30
9223752	Aroclor 1242	2024/02/16					<0.010	ug/g	NC	50

BUREAU
VERITAS

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9223752	Aroclor 1248	2024/02/16					<0.010	ug/g	NC	50
9223752	Aroclor 1254	2024/02/16					<0.010	ug/g	NC	50
9223752	Aroclor 1260	2024/02/16	85	30 - 130	97	30 - 130	<0.010	ug/g	NC	50
9223752	Total PCB	2024/02/16	85	30 - 130	97	30 - 130	<0.010	ug/g	NC	50
9223762	WAD Cyanide (Free)	2024/02/16	104	75 - 125	107	80 - 120	<0.01	ug/g	NC	35
9224443	1,2,4-Trichlorobenzene	2024/02/16	72	50 - 130	81	50 - 130	<0.05	ug/g	NC	40
9224443	1-Methylnaphthalene	2024/02/16	NC	50 - 130	93	50 - 130	<0.03	ug/g	98 (1)	40
9224443	2,4,5-Trichlorophenol	2024/02/16	83	50 - 130	79	50 - 130	<0.08	ug/g	NC	40
9224443	2,4,6-Trichlorophenol	2024/02/16	81	50 - 130	77	50 - 130	<0.1	ug/g	NC	40
9224443	2,4-Dichlorophenol	2024/02/16	83	50 - 130	84	50 - 130	<0.1	ug/g	NC	40
9224443	2,4-Dimethylphenol	2024/02/16	93	30 - 130	88	30 - 130	<0.2	ug/g	NC	40
9224443	2,4-Dinitrophenol	2024/02/16	NC	30 - 130	26 (1)	30 - 130	<0.5	ug/g	NC	40
9224443	2,4-Dinitrotoluene	2024/02/16	140 (1)	50 - 130	86	50 - 130	<0.1	ug/g	NC	40
9224443	2,6-Dinitrotoluene	2024/02/16	65	50 - 130	83	50 - 130	<0.1	ug/g	NC	40
9224443	2-Chlorophenol	2024/02/16	92	50 - 130	90	50 - 130	<0.08	ug/g	NC	40
9224443	2-Methylnaphthalene	2024/02/16	NC	50 - 130	89	50 - 130	<0.03	ug/g	101 (1)	40
9224443	3,3'-Dichlorobenzidine	2024/02/16	69	30 - 130	16 (1)	30 - 130	<0.5	ug/g	NC	40
9224443	Acenaphthene	2024/02/16	NC	50 - 130	87	50 - 130	<0.03	ug/g	101 (1)	40
9224443	Acenaphthylene	2024/02/16	184 (1)	50 - 130	85	50 - 130	<0.05	ug/g	70 (1)	40
9224443	Anthracene	2024/02/16	NC	50 - 130	93	50 - 130	<0.03	ug/g	112 (1)	40
9224443	Benzo(a)anthracene	2024/02/16	NC	50 - 130	105	50 - 130	<0.05	ug/g	87 (1)	40
9224443	Benzo(a)pyrene	2024/02/16	NC	50 - 130	102	50 - 130	<0.05	ug/g	86 (1)	40
9224443	Benzo(b,j)fluoranthene	2024/02/16	NC	50 - 130	114	50 - 130	<0.1	ug/g	90 (1)	40
9224443	Benzo(g,h,i)perylene	2024/02/16	NC	50 - 130	125	50 - 130	<0.1	ug/g	85 (1)	40
9224443	Benzo(k)fluoranthene	2024/02/16	NC	50 - 130	120	50 - 130	<0.03	ug/g	86 (1)	40
9224443	Biphenyl	2024/02/16	131 (1)	50 - 130	82	50 - 130	<0.05	ug/g	79 (1)	40
9224443	Bis(2-chloroethyl)ether	2024/02/16	84	50 - 130	81	50 - 130	<0.2	ug/g	NC	40
9224443	Bis(2-chloroisopropyl)ether	2024/02/16	83	50 - 130	85	50 - 130	<0.1	ug/g	NC	40
9224443	Bis(2-ethylhexyl)phthalate	2024/02/16	79	50 - 130	64	50 - 130	<1	ug/g	NC	40
9224443	Chrysene	2024/02/16	NC	50 - 130	98	50 - 130	<0.05	ug/g	86 (1)	40

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Bureau Veritas Job #: C445120

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9224443	Dibenzo(a,h)anthracene	2024/02/16	166 (1)	50 - 130	124	50 - 130	<0.05	ug/g	89 (1)	40
9224443	Diethyl phthalate	2024/02/16	104	50 - 130	97	50 - 130	<0.2	ug/g	NC	40
9224443	Dimethyl phthalate	2024/02/16	88	50 - 130	82	50 - 130	<0.2	ug/g	NC	40
9224443	Fluoranthene	2024/02/16	NC	50 - 130	120	50 - 130	<0.05	ug/g	88 (1)	40
9224443	Fluorene	2024/02/16	NC	50 - 130	94	50 - 130	<0.03	ug/g	92 (1)	40
9224443	Indeno(1,2,3-cd)pyrene	2024/02/16	NC	50 - 130	119	50 - 130	<0.08	ug/g	88 (1)	40
9224443	Naphthalene	2024/02/16	NC	50 - 130	80	50 - 130	<0.03	ug/g	89 (1)	40
9224443	p-Chloroaniline	2024/02/16	80	30 - 130	49	30 - 130	<0.2	ug/g	NC	40
9224443	Pentachlorophenol	2024/02/16	54	50 - 130	64	50 - 130	<0.1	ug/g	NC	40
9224443	Phenanthrene	2024/02/16	NC	50 - 130	92	50 - 130	<0.05	ug/g	89 (1)	40
9224443	Phenol	2024/02/16	89	30 - 130	84	30 - 130	<0.09	ug/g	NC	40
9224443	Pyrene	2024/02/16	NC	50 - 130	110	50 - 130	<0.05	ug/g	87 (1)	40
9224444	Hot Water Ext. Boron (B)	2024/02/16	103	75 - 125	101	75 - 125	<0.050	ug/g	1.7	40
9224564	Conductivity	2024/02/16			102	90 - 110	<0.002	mS/cm	0	10
9224699	Chromium (VI)	2024/02/16	78	70 - 130	93	80 - 120	<0.18	ug/g	NC	35
9224796	Acid Extractable Antimony (Sb)	2024/02/16	75	75 - 125	102	80 - 120	<0.20	ug/g	5.9	30
9224796	Acid Extractable Arsenic (As)	2024/02/16	109	75 - 125	103	80 - 120	<1.0	ug/g	4.0	30
9224796	Acid Extractable Barium (Ba)	2024/02/16	NC	75 - 125	107	80 - 120	<0.50	ug/g	2.3	30
9224796	Acid Extractable Beryllium (Be)	2024/02/16	104	75 - 125	98	80 - 120	<0.20	ug/g	0.89	30
9224796	Acid Extractable Boron (B)	2024/02/16	88	75 - 125	100	80 - 120	<5.0	ug/g	5.7	30
9224796	Acid Extractable Cadmium (Cd)	2024/02/16	106	75 - 125	99	80 - 120	<0.10	ug/g	6.4	30
9224796	Acid Extractable Chromium (Cr)	2024/02/16	NC	75 - 125	97	80 - 120	<1.0	ug/g	4.0	30
9224796	Acid Extractable Cobalt (Co)	2024/02/16	106	75 - 125	99	80 - 120	<0.10	ug/g	1.8	30
9224796	Acid Extractable Copper (Cu)	2024/02/16	NC	75 - 125	99	80 - 120	<0.50	ug/g	2.0	30
9224796	Acid Extractable Lead (Pb)	2024/02/16	109	75 - 125	104	80 - 120	<1.0	ug/g	2.7	30
9224796	Acid Extractable Mercury (Hg)	2024/02/16	115	75 - 125	110	80 - 120	<0.050	ug/g		
9224796	Acid Extractable Molybdenum (Mo)	2024/02/16	103	75 - 125	98	80 - 120	<0.50	ug/g	0.56	30
9224796	Acid Extractable Nickel (Ni)	2024/02/16	NC	75 - 125	103	80 - 120	<0.50	ug/g	5.1	30
9224796	Acid Extractable Selenium (Se)	2024/02/16	108	75 - 125	105	80 - 120	<0.50	ug/g	NC	30
9224796	Acid Extractable Silver (Ag)	2024/02/16	109	75 - 125	101	80 - 120	<0.20	ug/g	NC	30

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Bureau Veritas Job #: C445120

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9224796	Acid Extractable Thallium (Tl)	2024/02/16	111	75 - 125	106	80 - 120	<0.050	ug/g	6.3	30
9224796	Acid Extractable Uranium (U)	2024/02/16	108	75 - 125	101	80 - 120	<0.050	ug/g	4.7	30
9224796	Acid Extractable Vanadium (V)	2024/02/16	NC	75 - 125	99	80 - 120	<5.0	ug/g	4.5	30
9224796	Acid Extractable Zinc (Zn)	2024/02/16	NC	75 - 125	107	80 - 120	<5.0	ug/g	1.8	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.

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

Bureau Veritas Job #: C445120

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5758 task 102

Your P.O. #: CA0010794.5758

Sampler Initials: RR

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.



NONT-2024-02-878

C445/20

Page 1 of 1

Bureau Veritas
6742 Campbell Road, Mississauga, Ontario Canada L4N 3L6 Tel: (905) 817-8700 Toll-Free: 800-561-2286 Fax: (905) 817-8777 www.bvna.com

INVOICE TO: #25670 WSP Canada Inc.
Company Name: Accounts Payable
Attention: 215 Shields Court Unit # 1
Address: Markham ON L3R 8V2
Tel: (905) 475-2625
Email: CAPayablesInvoice@wsp.com

REPORT TO: #35494 WSP Canada Inc.
Company Name: Michael Hu
Attention: 351 Steelcase Road West, Units 10 and 12
Address: Markham ON L3R 4H9
Tel: (905) 475-0065
Email: michael.hu@wsp.com

PROJECT INFORMATION:
Order #: C31027
P.O. #: CA0010794.5758
Project: CA0010794.5758 task 102
Project Name: Dufferin St Transfer Station
Site #: NL
Sampled By: NL

Laboratory Use Only:
Bureau Veritas Job #:
Project Manager: Gina Baybayon
Turnaround Time (TAT) Required:
Please provide advance notice for rush projects.

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 ☒ And/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ For RSC
☐ Table

Other Regulations
☐ COME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA ☐ Municipality
☐ PWOC ☒ Reg 400 Table 1 RPI
☐ Other

Special Instructions
1 RPI
ES 55

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

ANALYSIS REQUESTED (PLEASE BE SPECIFIC):
Field Filtered (please circle): Metals / mg (L/V)
0 Reg 400 Excess Sol Bulk VOCs
0 Reg 400 Excess Sol Bulk BTX/PAHs
0 Reg 400 Excess Sol Bulk VOCs
0 Reg 400 Excess Sol Bulk PCBs
0 Reg 400 Excess Sol Bulk Inorganics
0 Reg 400 TCE in Metals
0 Reg 558 TCLP VOCs
0 Reg 558 TCLP PCBs
0 Reg 558 TCLP Benzene HC
HOLD

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 Dissolved Oxygen are + 3 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission):
Date Required: Time Required: ☐
Rush Confirmation Number: (call 800 for #)

Sample Barcode Label **Sample (Location) Identification** **Date Sampled** **Time Sampled** **Matrix**

Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / mg (L/V)	0 Reg 400 Excess Sol Bulk VOCs	0 Reg 400 Excess Sol Bulk BTX/PAHs	0 Reg 400 Excess Sol Bulk VOCs	0 Reg 400 Excess Sol Bulk PCBs	0 Reg 400 Excess Sol Bulk Inorganics	0 Reg 400 TCE in Metals	0 Reg 558 TCLP VOCs	0 Reg 558 TCLP PCBs	0 Reg 558 TCLP Benzene HC	# of Bins	Comments
1	BH23-02 - SS1	10 Feb 2024	—	SOIL		X	X	X	X	X	X				4	
2	BH23-02 - SS2	—	—	—											X	4
3	BH23-09 - SS1	—	—	—											X	4
4	BH23-09 - SS2	—	—	—		X	X	X	X	X	X				4	
5	BH23-11 - SS1	✓	—	↓		X	X	X	X	X	X				4	
6	BH23-11 - SS2	10 Feb 2024	—	SOIL											X	4
7	BH23-12	—	—	—												
8	BH23-12	—	—	—												
9	BH23-12	—	—	—												
10	BH23-12	—	—	—												

RELINQUISHED BY: (Signature/Print) Rebecca Coddicks **Date: (YY/MM/DD)** 21/02/23 **Time** 14:15 **RECEIVED BY: (Signature/Print)** Michael Hu **Date: (YY/MM/DD)** 21/02/23 **Time** 19:30

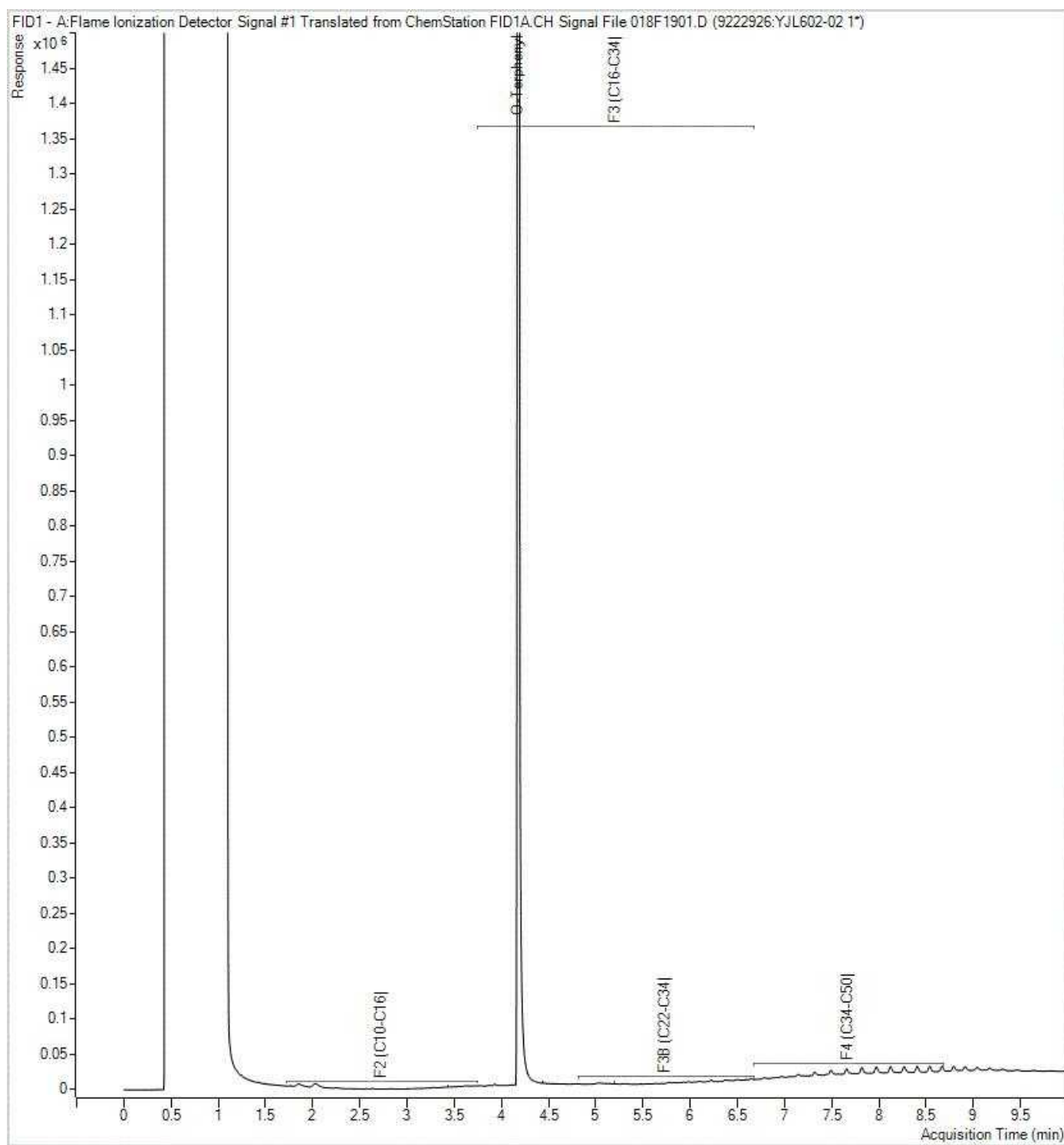
Laboratory Use Only:
Time Sensitive **Temperature (°C) on Receipt** 11/2/0 **Custody Seal Preserved** **Intact** **Yes** **No**

White: Bureau Veritas Yellow: Client
On 1/2

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

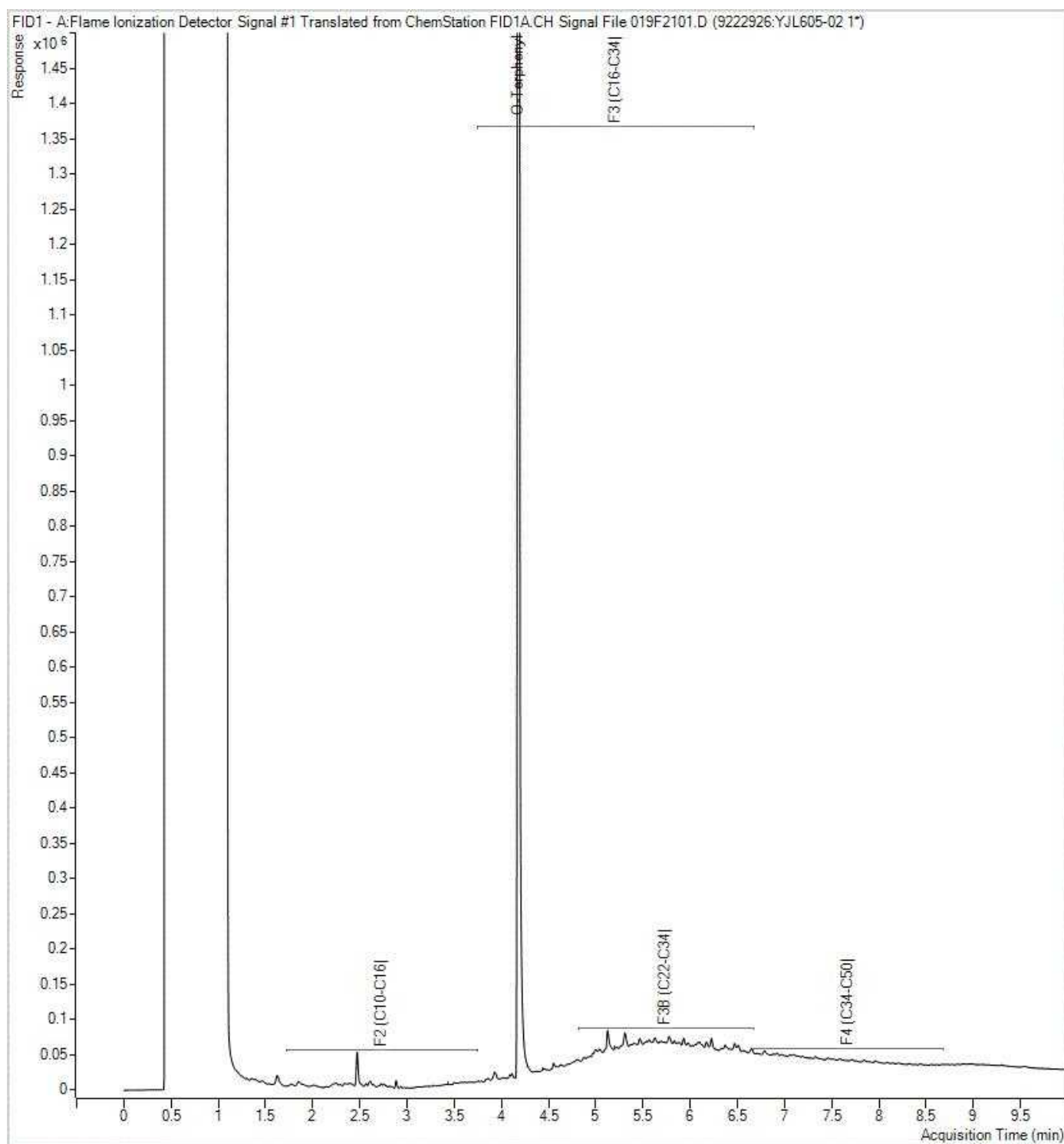
Bureau Veritas Canada (2019) Inc.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



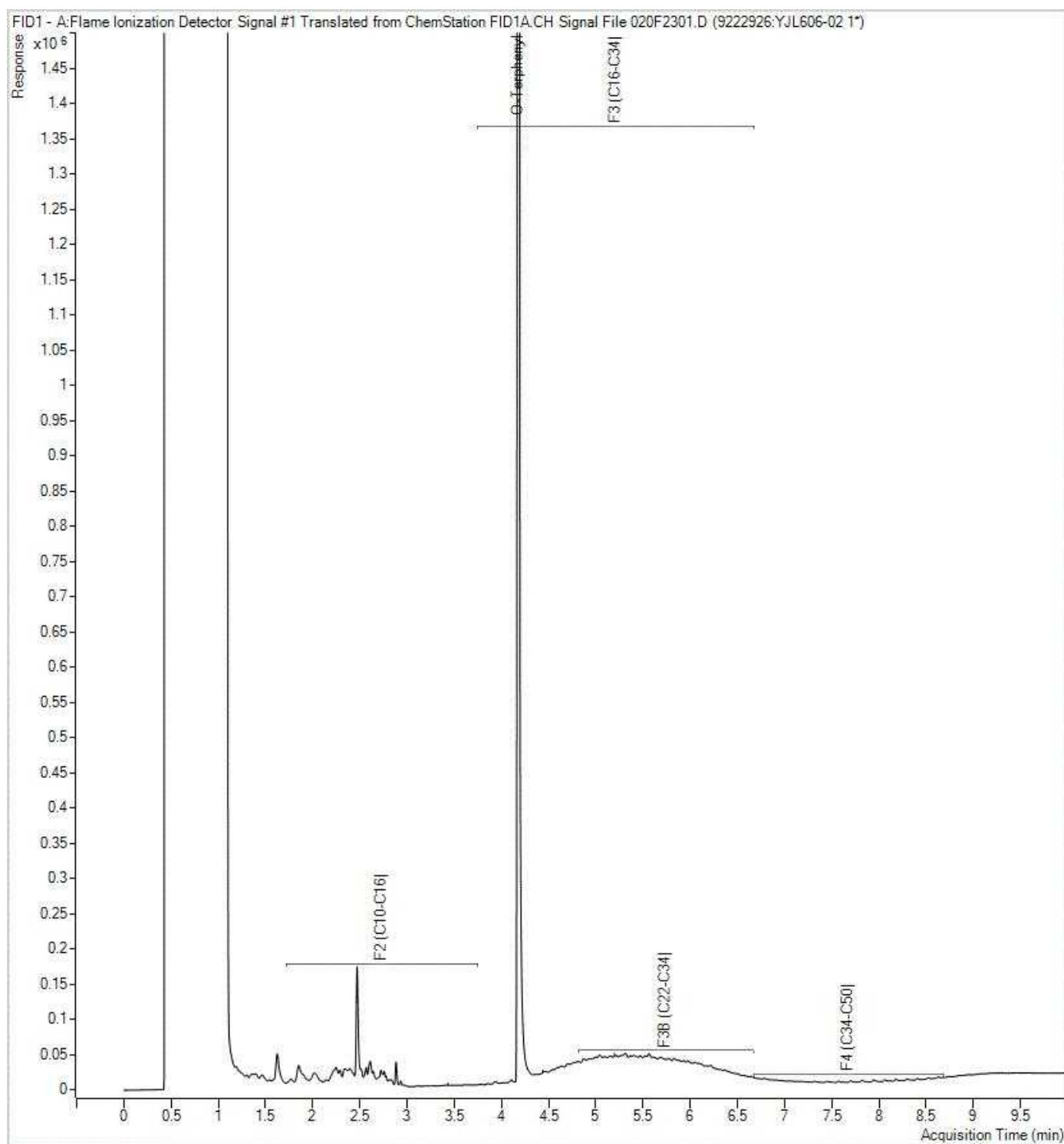
Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.



Attention: Michael Hu

WSP Canada Inc.
Steelcase Road
351 Steelcase Road West,
Units 10 and 12
Markham, ON
Canada L3R 4H9

Your P.O. #: CA0010794.5857
Your Project #: CA0010794.5857 TASK 102
Site Location: DUFFERIN ST TRANSFER STATION
Your C.O.C. #: C#975579-02-01

Report Date: 2024/02/22

Report #: R8038164

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C448271

Received: 2024/02/15, 13:43

Sample Matrix: Soil
Samples Received: 3

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2024/02/21	CAM SOP-00301	EPA 8270D m
ABN Compounds in soil by GC/MS	2	2024/02/20	2024/02/21	CAM SOP-00301	EPA 8270 m
Hot Water Extractable Boron	2	2024/02/20	2024/02/21	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2024/02/22		EPA 8260C m
Free (WAD) Cyanide	2	2024/02/20	2024/02/21	CAM SOP-00457	OMOE E3015 m
Conductivity	2	2024/02/20	2024/02/21	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2024/02/21	2024/02/21	CAM SOP-00436	EPA 3060A/7199 m
Dinitrotoluene Sum	2	2024/02/16	2024/02/21	CAM SOP - 00301	EPA 8270
Petroleum Hydrocarbons F2-F4 in Soil (2)	2	2024/02/20	2024/02/20	CAM SOP-00316	CCME CWS m
F4G (CCME Hydrocarbons Gravimetric)	1	2024/02/22	2024/02/22	CAM SOP-00316	CCME PHC-CWS m
Acid Extractable Metals by ICPMS	2	2024/02/20	2024/02/21	CAM SOP-00447	EPA 6020B m
Moisture	3	N/A	2024/02/17	CAM SOP-00445	Carter 2nd ed 70.2 m
Polychlorinated Biphenyl in Soil	2	2024/02/20	2024/02/21	CAM SOP-00309	EPA 8082A m
pH CaCl2 EXTRACT	2	2024/02/20	2024/02/20	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2024/02/22	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	1	N/A	2024/02/21	CAM SOP-00230	EPA 8260C m
Volatile Organic Compounds and F1 PHCs	1	N/A	2024/02/22	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.



Your P.O. #: CA0010794.5857
Your Project #: CA0010794.5857 TASK 102
Site Location: DUFFERIN ST TRANSFER STATION
Your C.O.C. #: C#975579-02-01

Attention: Michael Hu

WSP Canada Inc.
Steelcase Road
351 Steelcase Road West,
Units 10 and 12
Markham, ON
Canada L3R 4H9

Report Date: 2024/02/22

Report #: R8038164

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C448271

Received: 2024/02/15, 13:43

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

(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

Ankita Bhalla
Project Manager
23 Feb 2024 15:28:13

Please direct all questions regarding this Certificate of Analysis to:

Ankita Bhalla, Project Manager

Email: Ankita.Bhalla@bureauveritas.com

Phone# (905) 817-5700

=====

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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

Bureau Veritas Job #: C448271

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK INORGANICS (SOIL)

Bureau Veritas ID		YKB830		YKB834		
Sampling Date		2024/02/14		2024/02/14		
COC Number		C#975579-02-01		C#975579-02-01		
	UNITS	BH23-12-SS1	QC Batch	BH23-12-SS4	RDL	QC Batch
Calculated Parameters						
Sodium Adsorption Ratio	N/A	11	9226092	21		9226092
Inorganics						
Conductivity	mS/cm	1.9	9229656	3.5	0.002	9229656
Available (CaCl2) pH	pH	7.98	9229069	8.66		9229072
WAD Cyanide (Free)	ug/g	<0.01	9229184	<0.01	0.01	9229171
Chromium (VI)	ug/g	<0.18	9231182	<0.18	0.18	9231182
Metals						
Hot Water Ext. Boron (B)	ug/g	3.0	9229536	5.4	0.050	9229536
Acid Extractable Antimony (Sb)	ug/g	6.0	9229515	10	0.20	9229515
Acid Extractable Arsenic (As)	ug/g	6.1	9229515	6.8	1.0	9229515
Acid Extractable Barium (Ba)	ug/g	160	9229515	300	0.50	9229515
Acid Extractable Beryllium (Be)	ug/g	0.45	9229515	0.33	0.20	9229515
Acid Extractable Boron (B)	ug/g	18	9229515	39	5.0	9229515
Acid Extractable Cadmium (Cd)	ug/g	5.4	9229515	4.1	0.10	9229515
Acid Extractable Chromium (Cr)	ug/g	40	9229515	50	1.0	9229515
Acid Extractable Cobalt (Co)	ug/g	8.6	9229515	9.7	0.10	9229515
Acid Extractable Copper (Cu)	ug/g	120	9229515	300	0.50	9229515
Acid Extractable Lead (Pb)	ug/g	410	9229515	780	1.0	9229515
Acid Extractable Molybdenum (Mo)	ug/g	3.6	9229515	5.6	0.50	9229515
Acid Extractable Nickel (Ni)	ug/g	100	9229515	110	0.50	9229515
Acid Extractable Selenium (Se)	ug/g	0.51	9229515	<0.50	0.50	9229515
Acid Extractable Silver (Ag)	ug/g	1.7	9229515	3.3	0.20	9229515
Acid Extractable Thallium (Tl)	ug/g	0.093	9229515	0.058	0.050	9229515
Acid Extractable Uranium (U)	ug/g	0.49	9229515	0.47	0.050	9229515
Acid Extractable Vanadium (V)	ug/g	29	9229515	24	5.0	9229515
Acid Extractable Zinc (Zn)	ug/g	670	9229515	1000	5.0	9229515
Acid Extractable Mercury (Hg)	ug/g	0.39	9229515	0.25	0.050	9229515
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



BUREAU
VERITAS

Bureau Veritas Job #: C448271

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK PCBS (SOIL)

Bureau Veritas ID		YKB830		YKB834		
Sampling Date		2024/02/14		2024/02/14		
COC Number		C#975579-02-01		C#975579-02-01		
	UNITS	BH23-12-SS1	RDL	BH23-12-SS4	RDL	QC Batch
PCBs						
Aroclor 1242	ug/g	<0.20	0.20	0.24	0.010	9228703
Aroclor 1248	ug/g	<0.20	0.20	<0.010	0.010	9228703
Aroclor 1254	ug/g	<0.20	0.20	<0.010	0.010	9228703
Aroclor 1260	ug/g	<0.20	0.20	<0.010	0.010	9228703
Total PCB	ug/g	<0.20	0.20	0.24	0.010	9228703
Surrogate Recovery (%)						
Decachlorobiphenyl	%	67		68		9228703
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



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WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK SVOCs (SOIL)

Bureau Veritas ID		YKB830	YKB834		
Sampling Date		2024/02/14	2024/02/14		
COC Number		C#975579-02-01	C#975579-02-01		
	UNITS	BH23-12-SS1	BH23-12-SS4	RDL	QC Batch
Semivolatile Organics					
1,2,4-Trichlorobenzene	ug/g	<0.1	<0.1	0.1	9228712
1-Methylnaphthalene	ug/g	<0.06	<0.06	0.06	9228712
2,4,5-Trichlorophenol	ug/g	<0.2	<0.2	0.2	9228712
2,4,6-Trichlorophenol	ug/g	<0.2	<0.2	0.2	9228712
2,4-Dichlorophenol	ug/g	<0.2	<0.2	0.2	9228712
2,4-Dimethylphenol	ug/g	<0.4	<0.4	0.4	9228712
2,4-Dinitrophenol	ug/g	<1	<1	1	9228712
2,4-Dinitrotoluene	ug/g	<0.2	<0.2	0.2	9228712
2,6-Dinitrotoluene	ug/g	<0.2	<0.2	0.2	9228712
2-Chlorophenol	ug/g	<0.2	<0.2	0.2	9228712
2-Methylnaphthalene	ug/g	<0.06	<0.06	0.06	9228712
3,3'-Dichlorobenzidine	ug/g	<1	<1	1	9228712
Acenaphthene	ug/g	<0.06	<0.06	0.06	9228712
Acenaphthylene	ug/g	<0.1	<0.1	0.1	9228712
Anthracene	ug/g	<0.06	0.07	0.06	9228712
Benzo(a)anthracene	ug/g	<0.1	0.1	0.1	9228712
Benzo(a)pyrene	ug/g	<0.1	0.1	0.1	9228712
Benzo(b,j)fluoranthene	ug/g	<0.2	<0.2	0.2	9228712
Benzo(g,h,i)perylene	ug/g	<0.2	<0.2	0.2	9228712
Benzo(k)fluoranthene	ug/g	<0.06	<0.06	0.06	9228712
Biphenyl	ug/g	<0.1	<0.1	0.1	9228712
Bis(2-chloroethyl)ether	ug/g	<0.4	<0.4	0.4	9228712
Bis(2-chloroisopropyl)ether	ug/g	<0.2	<0.2	0.2	9228712
Bis(2-ethylhexyl)phthalate	ug/g	<2	<2	2	9228712
Chrysene	ug/g	<0.1	0.1	0.1	9228712
Dibenzo(a,h)anthracene	ug/g	<0.1	<0.1	0.1	9228712
Diethyl phthalate	ug/g	<0.4	<0.4	0.4	9228712
Dimethyl phthalate	ug/g	<0.4	<0.4	0.4	9228712
Fluoranthene	ug/g	0.1	0.3	0.1	9228712
Fluorene	ug/g	<0.06	0.08	0.06	9228712
Indeno(1,2,3-cd)pyrene	ug/g	<0.2	<0.2	0.2	9228712
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



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VERITAS**

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Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK SVOCs (SOIL)

Bureau Veritas ID		YKB830	YKB834		
Sampling Date		2024/02/14	2024/02/14		
COC Number		C#975579-02-01	C#975579-02-01		
	UNITS	BH23-12-SS1	BH23-12-SS4	RDL	QC Batch
Naphthalene	ug/g	<0.06	0.07	0.06	9228712
p-Chloroaniline	ug/g	<0.4	<0.4	0.4	9228712
Pentachlorophenol	ug/g	<0.2	<0.2	0.2	9228712
Phenanthrene	ug/g	<0.1	0.4	0.1	9228712
Phenol	ug/g	<0.2	<0.2	0.2	9228712
Pyrene	ug/g	0.1	0.3	0.1	9228712
Calculated Parameters					
2,4- & 2,6-Dinitrotoluene	ug/g	<0.28	<0.28	0.28	9224690
Methylnaphthalene, 2-(1-)	ug/g	<0.085	<0.085	0.085	9226094
Surrogate Recovery (%)					
2,4,6-Tribromophenol	%	107	94		9228712
2-Fluorobiphenyl	%	86	80		9228712
D14-Terphenyl (FS)	%	116	110		9228712
D5-Nitrobenzene	%	71	52		9228712
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



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VERITAS

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WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YKB834			YKB834		
Sampling Date		2024/02/14			2024/02/14		
COC Number		C#975579-02-01			C#975579-02-01		
	UNITS	BH23-12-SS4	RDL	QC Batch	BH23-12-SS4 Lab-Dup	RDL	QC Batch
Calculated Parameters							
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	9226095			
Volatile Organics							
Acetone (2-Propanone)	ug/g	<0.49	0.49	9228922	<0.49	0.49	9228922
Benzene	ug/g	0.11	0.0060	9228922	0.11	0.0060	9228922
Bromodichloromethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Bromoform	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Bromomethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Carbon Tetrachloride	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Chlorobenzene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Chloroform	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Dibromochloromethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,2-Dichlorobenzene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,3-Dichlorobenzene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,4-Dichlorobenzene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,1-Dichloroethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,2-Dichloroethane	ug/g	<0.049	0.049	9228922	<0.049	0.049	9228922
1,1-Dichloroethylene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,2-Dichloropropane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	9228922	<0.030	0.030	9228922
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Ethylbenzene	ug/g	0.16	0.010	9228922	0.15	0.010	9228922
Ethylene Dibromide	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Hexane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	9228922	<0.049	0.049	9228922
Methyl Ethyl Ketone (2-Butanone)	ug/g	1.1	0.40	9228922	1.0	0.40	9228922
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	9228922	<0.40	0.40	9228922
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

Bureau Veritas Job #: C448271

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YKB834			YKB834		
Sampling Date		2024/02/14			2024/02/14		
COC Number		C#975579-02-01			C#975579-02-01		
	UNITS	BH23-12-SS4	RDL	QC Batch	BH23-12-SS4 Lab-Dup	RDL	QC Batch
Styrene	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Tetrachloroethylene	ug/g	0.043	0.040	9228922	<0.040	0.040	9228922
Toluene	ug/g	0.21	0.020	9228922	0.21	0.020	9228922
1,1,1-Trichloroethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
1,1,2-Trichloroethane	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Trichloroethylene	ug/g	0.010	0.010	9228922	0.011	0.010	9228922
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	9228922	<0.040	0.040	9228922
Vinyl Chloride	ug/g	<0.019	0.019	9228922	<0.019	0.019	9228922
p+m-Xylene	ug/g	0.10	0.020	9228922	0.10	0.020	9228922
o-Xylene	ug/g	0.067	0.020	9228922	0.067	0.020	9228922
Total Xylenes	ug/g	0.17	0.020	9228922	0.17	0.020	9228922
F1 (C6-C10)	ug/g	16	10	9228922	16	10	9228922
F1 (C6-C10) - BTEX	ug/g	15	10	9228922	15	10	9228922
F2-F4 Hydrocarbons							
F2 (C10-C16 Hydrocarbons)	ug/g	20	10	9228696			
F3 (C16-C34 Hydrocarbons)	ug/g	840	50	9228696			
F4 (C34-C50 Hydrocarbons)	ug/g	1200	50	9228696			
Reached Baseline at C50	ug/g	No		9228696			
Surrogate Recovery (%)							
o-Terphenyl	%	79		9228696			
4-Bromofluorobenzene	%	110		9228922	110		9228922
D10-o-Xylene	%	89		9228922	88		9228922
D4-1,2-Dichloroethane	%	101		9228922	101		9228922
D8-Toluene	%	91		9228922	91		9228922
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							



BUREAU
VERITAS

Bureau Veritas Job #: C448271

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YKB837		
Sampling Date		2024/02/14		
COC Number		C#975579-02-01		
	UNITS	BH23-12-SS8	RDL	QC Batch
Calculated Parameters				
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	0.050	9226095
Volatile Organics				
Acetone (2-Propanone)	ug/g	<0.49	0.49	9228922
Benzene	ug/g	0.011	0.0060	9228922
Bromodichloromethane	ug/g	<0.040	0.040	9228922
Bromoform	ug/g	<0.040	0.040	9228922
Bromomethane	ug/g	<0.040	0.040	9228922
Carbon Tetrachloride	ug/g	<0.040	0.040	9228922
Chlorobenzene	ug/g	<0.040	0.040	9228922
Chloroform	ug/g	<0.040	0.040	9228922
Dibromochloromethane	ug/g	<0.040	0.040	9228922
1,2-Dichlorobenzene	ug/g	<0.040	0.040	9228922
1,3-Dichlorobenzene	ug/g	<0.040	0.040	9228922
1,4-Dichlorobenzene	ug/g	<0.040	0.040	9228922
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	0.040	9228922
1,1-Dichloroethane	ug/g	<0.040	0.040	9228922
1,2-Dichloroethane	ug/g	<0.049	0.049	9228922
1,1-Dichloroethylene	ug/g	<0.040	0.040	9228922
cis-1,2-Dichloroethylene	ug/g	<0.040	0.040	9228922
trans-1,2-Dichloroethylene	ug/g	<0.040	0.040	9228922
1,2-Dichloropropane	ug/g	<0.040	0.040	9228922
cis-1,3-Dichloropropene	ug/g	<0.030	0.030	9228922
trans-1,3-Dichloropropene	ug/g	<0.040	0.040	9228922
Ethylbenzene	ug/g	0.017	0.010	9228922
Ethylene Dibromide	ug/g	<0.040	0.040	9228922
Hexane	ug/g	<0.040	0.040	9228922
Methylene Chloride(Dichloromethane)	ug/g	<0.049	0.049	9228922
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	0.40	9228922
Methyl Isobutyl Ketone	ug/g	<0.40	0.40	9228922
Methyl t-butyl ether (MTBE)	ug/g	<0.040	0.040	9228922
Styrene	ug/g	<0.040	0.040	9228922
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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VERITAS

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WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YKB837		
Sampling Date		2024/02/14		
COC Number		C#975579-02-01		
	UNITS	BH23-12-SS8	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/g	<0.040	0.040	9228922
1,1,2,2-Tetrachloroethane	ug/g	<0.040	0.040	9228922
Tetrachloroethylene	ug/g	<0.040	0.040	9228922
Toluene	ug/g	<0.020	0.020	9228922
1,1,1-Trichloroethane	ug/g	<0.040	0.040	9228922
1,1,2-Trichloroethane	ug/g	<0.040	0.040	9228922
Trichloroethylene	ug/g	<0.010	0.010	9228922
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	0.040	9228922
Vinyl Chloride	ug/g	<0.019	0.019	9228922
p+m-Xylene	ug/g	<0.020	0.020	9228922
o-Xylene	ug/g	<0.020	0.020	9228922
Total Xylenes	ug/g	<0.020	0.020	9228922
F1 (C6-C10)	ug/g	47	10	9228922
F1 (C6-C10) - BTEX	ug/g	47	10	9228922
F2-F4 Hydrocarbons				
F2 (C10-C16 Hydrocarbons)	ug/g	140	10	9228696
F3 (C16-C34 Hydrocarbons)	ug/g	390	50	9228696
F4 (C34-C50 Hydrocarbons)	ug/g	170	50	9228696
Reached Baseline at C50	ug/g	Yes		9228696
Surrogate Recovery (%)				
o-Terphenyl	%	84		9228696
4-Bromofluorobenzene	%	122		9228922
D10-o-Xylene	%	92		9228922
D4-1,2-Dichloroethane	%	102		9228922
D8-Toluene	%	92		9228922
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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VERITAS

Bureau Veritas Job #: C448271
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WSP Canada Inc.
Client Project #: CA0010794.5857 TASK 102
Site Location: DUFFERIN ST TRANSFER STATION
Your P.O. #: CA0010794.5857
Sampler Initials: VL

RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		YKB830		YKB834		YKB837		
Sampling Date		2024/02/14		2024/02/14		2024/02/14		
COC Number		C#975579-02-01		C#975579-02-01		C#975579-02-01		
	UNITS	BH23-12-SS1	QC Batch	BH23-12-SS4	QC Batch	BH23-12-SS8	RDL	QC Batch
Inorganics								
Moisture	%	23	9227176	28	9227234	19	1.0	9227176
RDL = Reportable Detection Limit								
QC Batch = Quality Control Batch								



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Your P.O. #: CA0010794.5857

Sampler Initials: VL

PETROLEUM HYDROCARBONS (CCME)

Bureau Veritas ID		YKB834		
Sampling Date		2024/02/14		
COC Number		C#975579-02-01		
	UNITS	BH23-12-SS4	RDL	QC Batch
F2-F4 Hydrocarbons				
F4G-sg (Grav. Heavy Hydrocarbons)	ug/g	3800	100	9233683
RDL = Reportable Detection Limit				
QC Batch = Quality Control Batch				



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Report Date: 2024/02/22

WSP Canada Inc.
Client Project #: CA0010794.5857 TASK 102
Site Location: DUFFERIN ST TRANSFER STATION
Your P.O. #: CA0010794.5857
Sampler Initials: VL

TEST SUMMARY

Bureau Veritas ID: YKB830
Sample ID: BH23-12-SS1
Matrix: Soil

Collected: 2024/02/14
Shipped:
Received: 2024/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9226094	N/A	2024/02/21	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9228712	2024/02/20	2024/02/21	Milijana Avramovic
Hot Water Extractable Boron	ICP	9229536	2024/02/20	2024/02/21	Indira HarryPaul
Free (WAD) Cyanide	TECH	9229184	2024/02/20	2024/02/21	Prgya Panchal
Conductivity	AT	9229656	2024/02/20	2024/02/21	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9231182	2024/02/21	2024/02/21	Sousan Besharatlou
Dinitrotoluene Sum	CALC	9224690	2024/02/21	2024/02/21	Automated Statchk
Acid Extractable Metals by ICPMS	ICP/MS	9229515	2024/02/20	2024/02/21	Daniel Teclu
Moisture	BAL	9227176	N/A	2024/02/17	Muhammad Chhaidan
Polychlorinated Biphenyl in Soil	GC/ECD	9228703	2024/02/20	2024/02/21	Debashis Saha
pH CaCl2 EXTRACT	AT	9229069	2024/02/20	2024/02/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	9226092	N/A	2024/02/22	Automated Statchk

Bureau Veritas ID: YKB834
Sample ID: BH23-12-SS4
Matrix: Soil

Collected: 2024/02/14
Shipped:
Received: 2024/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9226094	N/A	2024/02/21	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9228712	2024/02/20	2024/02/21	Milijana Avramovic
Hot Water Extractable Boron	ICP	9229536	2024/02/20	2024/02/21	Indira HarryPaul
1,3-Dichloropropene Sum	CALC	9226095	N/A	2024/02/22	Automated Statchk
Free (WAD) Cyanide	TECH	9229171	2024/02/20	2024/02/21	Jency Sara Johnson
Conductivity	AT	9229656	2024/02/20	2024/02/21	Leily Karimi
Hexavalent Chromium in Soil by IC	IC/SPEC	9231182	2024/02/21	2024/02/21	Sousan Besharatlou
Dinitrotoluene Sum	CALC	9224690	2024/02/21	2024/02/21	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9228696	2024/02/20	2024/02/20	(Kent) Maolin Li
F4G (CCME Hydrocarbons Gravimetric)	BAL	9233683	2024/02/22	2024/02/22	Alketa Vrap
Acid Extractable Metals by ICPMS	ICP/MS	9229515	2024/02/20	2024/02/21	Daniel Teclu
Moisture	BAL	9227234	N/A	2024/02/17	Muhammad Chhaidan
Polychlorinated Biphenyl in Soil	GC/ECD	9228703	2024/02/20	2024/02/21	Debashis Saha
pH CaCl2 EXTRACT	AT	9229072	2024/02/20	2024/02/20	Surinder Rai
Sodium Adsorption Ratio (SAR)	CALC/MET	9226092	N/A	2024/02/22	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9228922	N/A	2024/02/21	Xueming Jiang

Bureau Veritas ID: YKB834 Dup
Sample ID: BH23-12-SS4
Matrix: Soil

Collected: 2024/02/14
Shipped:
Received: 2024/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9228922	N/A	2024/02/21	Xueming Jiang



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Bureau Veritas Job #: C448271

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

TEST SUMMARY

Bureau Veritas ID: YKB837
Sample ID: BH23-12-SS8
Matrix: Soil

Collected: 2024/02/14
Shipped:
Received: 2024/02/15

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
1,3-Dichloropropene Sum	CALC	9226095	N/A	2024/02/22	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9228696	2024/02/20	2024/02/20	(Kent) Maolin Li
Moisture	BAL	9227176	N/A	2024/02/17	Muhammad Chhaidan
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9228922	N/A	2024/02/22	Xueming Jiang



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	-1.0°C
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ABN Analysis: Due to the sample matrix, sample required dilution. Detection limits were adjusted accordingly.

Sample YKB837 [BH23-12-SS8] : VOC/F1 Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

PETROLEUM HYDROCARBONS (CCME)

F4G (CCME Hydrocarbons Gravimetric): F4G Analysis: The recovery in the matrix spike was not calculated (NC). Because of the high concentration of this analyte in the parent sample, the relative difference between the spiked and unspiked concentrations is not sufficiently significant to permit a reliable recovery calculation.

Results relate only to the items tested.



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Bureau Veritas Job #: C448271

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9228696	o-Terphenyl	2024/02/20	80	60 - 130	81	60 - 130	85	%		
9228703	Decachlorobiphenyl	2024/02/21	105	60 - 130	103	60 - 130	91	%		
9228712	2,4,6-Tribromophenol	2024/02/20	102	50 - 130	97	50 - 130	84	%		
9228712	2-Fluorobiphenyl	2024/02/20	76	50 - 130	79	50 - 130	79	%		
9228712	D14-Terphenyl (FS)	2024/02/20	110	50 - 130	106	50 - 130	108	%		
9228712	D5-Nitrobenzene	2024/02/20	64	50 - 130	75	50 - 130	68	%		
9228922	4-Bromofluorobenzene	2024/02/21	108	60 - 140	103	60 - 140	94	%		
9228922	D10-o-Xylene	2024/02/21	96	60 - 130	95	60 - 130	85	%		
9228922	D4-1,2-Dichloroethane	2024/02/21	96	60 - 140	99	60 - 140	103	%		
9228922	D8-Toluene	2024/02/21	103	60 - 140	106	60 - 140	92	%		
9227176	Moisture	2024/02/17							1.2	20
9227234	Moisture	2024/02/17							9.7	20
9228696	F2 (C10-C16 Hydrocarbons)	2024/02/20	92	60 - 130	91	80 - 120	<10	ug/g	NC	30
9228696	F3 (C16-C34 Hydrocarbons)	2024/02/20	94	60 - 130	94	80 - 120	<50	ug/g	NC	30
9228696	F4 (C34-C50 Hydrocarbons)	2024/02/20	92	60 - 130	92	80 - 120	<50	ug/g	NC	30
9228703	Aroclor 1242	2024/02/21					<0.010	ug/g	NC	50
9228703	Aroclor 1248	2024/02/21					<0.010	ug/g	NC	50
9228703	Aroclor 1254	2024/02/21					<0.010	ug/g	NC	50
9228703	Aroclor 1260	2024/02/21	99	30 - 130	100	30 - 130	<0.010	ug/g	NC	50
9228703	Total PCB	2024/02/21	99	30 - 130	100	30 - 130	<0.010	ug/g	NC	50
9228712	1,2,4-Trichlorobenzene	2024/02/20	54	50 - 130	77	50 - 130	<0.05	ug/g	NC	40
9228712	1-Methylnaphthalene	2024/02/20	75	50 - 130	82	50 - 130	<0.03	ug/g	NC	40
9228712	2,4,5-Trichlorophenol	2024/02/20	84	50 - 130	82	50 - 130	<0.08	ug/g	NC	40
9228712	2,4,6-Trichlorophenol	2024/02/20	81	50 - 130	80	50 - 130	<0.1	ug/g	NC	40
9228712	2,4-Dichlorophenol	2024/02/20	82	50 - 130	88	50 - 130	<0.1	ug/g	NC	40
9228712	2,4-Dimethylphenol	2024/02/20	89	30 - 130	86	30 - 130	<0.2	ug/g	NC	40
9228712	2,4-Dinitrophenol	2024/02/20	79	30 - 130	57	30 - 130	<0.5	ug/g	NC	40
9228712	2,4-Dinitrotoluene	2024/02/20	90	50 - 130	92	50 - 130	<0.1	ug/g	NC	40
9228712	2,6-Dinitrotoluene	2024/02/20	80	50 - 130	82	50 - 130	<0.1	ug/g	NC	40
9228712	2-Chlorophenol	2024/02/20	79	50 - 130	86	50 - 130	<0.08	ug/g	NC	40



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Bureau Veritas Job #: C448271

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9228712	2-Methylnaphthalene	2024/02/20	71	50 - 130	79	50 - 130	<0.03	ug/g	NC	40
9228712	3,3'-Dichlorobenzidine	2024/02/20	91	30 - 130	49	30 - 130	<0.5	ug/g	NC	40
9228712	Acenaphthene	2024/02/20	77	50 - 130	78	50 - 130	<0.03	ug/g	NC	40
9228712	Acenaphthylene	2024/02/20	76	50 - 130	77	50 - 130	<0.05	ug/g	NC	40
9228712	Anthracene	2024/02/20	83	50 - 130	84	50 - 130	<0.03	ug/g	NC	40
9228712	Benzo(a)anthracene	2024/02/20	98	50 - 130	96	50 - 130	<0.05	ug/g	NC	40
9228712	Benzo(a)pyrene	2024/02/20	96	50 - 130	96	50 - 130	<0.05	ug/g	NC	40
9228712	Benzo(b/j)fluoranthene	2024/02/20	90	50 - 130	93	50 - 130	<0.1	ug/g	NC	40
9228712	Benzo(g,h,i)perylene	2024/02/20	101	50 - 130	105	50 - 130	<0.1	ug/g	NC	40
9228712	Benzo(k)fluoranthene	2024/02/20	92	50 - 130	93	50 - 130	<0.03	ug/g	NC	40
9228712	Biphenyl	2024/02/20	71	50 - 130	74	50 - 130	<0.05	ug/g	NC	40
9228712	Bis(2-chloroethyl)ether	2024/02/20	64	50 - 130	75	50 - 130	<0.2	ug/g	NC	40
9228712	Bis(2-chloroisopropyl)ether	2024/02/20	64	50 - 130	78	50 - 130	<0.1	ug/g	NC	40
9228712	Bis(2-ethylhexyl)phthalate	2024/02/20	81	50 - 130	75	50 - 130	<1	ug/g	NC	40
9228712	Chrysene	2024/02/20	91	50 - 130	91	50 - 130	<0.05	ug/g	NC	40
9228712	Dibenzo(a,h)anthracene	2024/02/20	102	50 - 130	104	50 - 130	<0.05	ug/g	NC	40
9228712	Diethyl phthalate	2024/02/20	95	50 - 130	98	50 - 130	<0.2	ug/g	NC	40
9228712	Dimethyl phthalate	2024/02/20	83	50 - 130	84	50 - 130	<0.2	ug/g	NC	40
9228712	Fluoranthene	2024/02/20	109	50 - 130	110	50 - 130	<0.05	ug/g	NC	40
9228712	Fluorene	2024/02/20	86	50 - 130	86	50 - 130	<0.03	ug/g	NC	40
9228712	Indeno(1,2,3-cd)pyrene	2024/02/20	96	50 - 130	97	50 - 130	<0.08	ug/g	NC	40
9228712	Naphthalene	2024/02/20	61	50 - 130	78	50 - 130	<0.03	ug/g	NC	40
9228712	p-Chloroaniline	2024/02/20	68	30 - 130	55	30 - 130	<0.2	ug/g	NC	40
9228712	Pentachlorophenol	2024/02/20	67	50 - 130	68	50 - 130	<0.1	ug/g	NC	40
9228712	Phenanthrene	2024/02/20	85	50 - 130	86	50 - 130	<0.05	ug/g	NC	40
9228712	Phenol	2024/02/20	79	30 - 130	81	30 - 130	<0.09	ug/g	NC	40
9228712	Pyrene	2024/02/20	104	50 - 130	102	50 - 130	<0.05	ug/g	NC	40
9228922	1,1,1,2-Tetrachloroethane	2024/02/21	93	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9228922	1,1,1-Trichloroethane	2024/02/21	89	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9228922	1,1,2,2-Tetrachloroethane	2024/02/21	94	60 - 140	103	60 - 130	<0.040	ug/g	NC	50

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Bureau Veritas Job #: C448271

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9228922	1,1,2-Trichloroethane	2024/02/21	83	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
9228922	1,1-Dichloroethane	2024/02/21	91	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9228922	1,1-Dichloroethylene	2024/02/21	83	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9228922	1,2-Dichlorobenzene	2024/02/21	87	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9228922	1,2-Dichloroethane	2024/02/21	83	60 - 140	89	60 - 130	<0.049	ug/g	NC	50
9228922	1,2-Dichloropropane	2024/02/21	89	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9228922	1,3-Dichlorobenzene	2024/02/21	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9228922	1,4-Dichlorobenzene	2024/02/21	105	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9228922	Acetone (2-Propanone)	2024/02/21	82	60 - 140	89	60 - 140	<0.49	ug/g	NC	50
9228922	Benzene	2024/02/21	84	60 - 140	88	60 - 130	<0.0060	ug/g	1.1	50
9228922	Bromodichloromethane	2024/02/21	95	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9228922	Bromoform	2024/02/21	88	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9228922	Bromomethane	2024/02/21	77	60 - 140	81	60 - 140	<0.040	ug/g	NC	50
9228922	Carbon Tetrachloride	2024/02/21	87	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9228922	Chlorobenzene	2024/02/21	94	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9228922	Chloroform	2024/02/21	95	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9228922	cis-1,2-Dichloroethylene	2024/02/21	93	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9228922	cis-1,3-Dichloropropene	2024/02/21	79	60 - 140	80	60 - 130	<0.030	ug/g	NC	50
9228922	Dibromochloromethane	2024/02/21	88	60 - 140	96	60 - 130	<0.040	ug/g	NC	50
9228922	Dichlorodifluoromethane (FREON 12)	2024/02/21	60	60 - 140	63	60 - 140	<0.040	ug/g	NC	50
9228922	Ethylbenzene	2024/02/21	81	60 - 140	84	60 - 130	<0.010	ug/g	0.33	50
9228922	Ethylene Dibromide	2024/02/21	90	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9228922	F1 (C6-C10) - BTEX	2024/02/21					<10	ug/g	3.4	30
9228922	F1 (C6-C10)	2024/02/21	61	60 - 140	94	80 - 120	<10	ug/g	3.2	30
9228922	Hexane	2024/02/21	77	60 - 140	82	60 - 130	<0.040	ug/g	NC	50
9228922	Methyl Ethyl Ketone (2-Butanone)	2024/02/21	89	60 - 140	95	60 - 140	<0.40	ug/g	2.2	50
9228922	Methyl Isobutyl Ketone	2024/02/21	82	60 - 140	87	60 - 130	<0.40	ug/g	NC	50
9228922	Methyl t-butyl ether (MTBE)	2024/02/21	87	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
9228922	Methylene Chloride(Dichloromethane)	2024/02/21	97	60 - 140	102	60 - 130	<0.049	ug/g	NC	50
9228922	o-Xylene	2024/02/21	79	60 - 140	81	60 - 130	<0.020	ug/g	0.25	50



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Bureau Veritas Job #: C448271

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9228922	p+m-Xylene	2024/02/21	87	60 - 140	89	60 - 130	<0.020	ug/g	0.34	50
9228922	Styrene	2024/02/21	97	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9228922	Tetrachloroethylene	2024/02/21	90	60 - 140	97	60 - 130	<0.040	ug/g	6.1	50
9228922	Toluene	2024/02/21	84	60 - 140	90	60 - 130	<0.020	ug/g	0.82	50
9228922	Total Xylenes	2024/02/21					<0.020	ug/g	0.30	50
9228922	trans-1,2-Dichloroethylene	2024/02/21	89	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9228922	trans-1,3-Dichloropropene	2024/02/21	83	60 - 140	85	60 - 130	<0.040	ug/g	NC	50
9228922	Trichloroethylene	2024/02/21	94	60 - 140	97	60 - 130	<0.010	ug/g	3.7	50
9228922	Trichlorofluoromethane (FREON 11)	2024/02/21	86	60 - 140	91	60 - 130	<0.040	ug/g	NC	50
9228922	Vinyl Chloride	2024/02/21	80	60 - 140	84	60 - 130	<0.019	ug/g	NC	50
9229069	Available (CaCl ₂) pH	2024/02/20			100	97 - 103			1.4	N/A
9229072	Available (CaCl ₂) pH	2024/02/20			100	97 - 103			0.38	N/A
9229171	WAD Cyanide (Free)	2024/02/21	132 (1)	75 - 125	106	80 - 120	<0.01	ug/g	NC	35
9229184	WAD Cyanide (Free)	2024/02/21	101	75 - 125	103	80 - 120	<0.01	ug/g	NC	35
9229515	Acid Extractable Antimony (Sb)	2024/02/21	97	75 - 125	100	80 - 120	<0.20	ug/g	NC	30
9229515	Acid Extractable Arsenic (As)	2024/02/21	96	75 - 125	100	80 - 120	<1.0	ug/g	1.6	30
9229515	Acid Extractable Barium (Ba)	2024/02/21	NC	75 - 125	99	80 - 120	<0.50	ug/g	1.5	30
9229515	Acid Extractable Beryllium (Be)	2024/02/21	99	75 - 125	100	80 - 120	<0.20	ug/g	2.6	30
9229515	Acid Extractable Boron (B)	2024/02/21	97	75 - 125	101	80 - 120	<5.0	ug/g	0.98	30
9229515	Acid Extractable Cadmium (Cd)	2024/02/21	96	75 - 125	98	80 - 120	<0.10	ug/g	NC	30
9229515	Acid Extractable Chromium (Cr)	2024/02/21	99	75 - 125	97	80 - 120	<1.0	ug/g	2.1	30
9229515	Acid Extractable Cobalt (Co)	2024/02/21	96	75 - 125	99	80 - 120	<0.10	ug/g	1.4	30
9229515	Acid Extractable Copper (Cu)	2024/02/21	96	75 - 125	99	80 - 120	<0.50	ug/g	0.76	30
9229515	Acid Extractable Lead (Pb)	2024/02/21	95	75 - 125	99	80 - 120	<1.0	ug/g	2.3	30
9229515	Acid Extractable Mercury (Hg)	2024/02/21	98	75 - 125	101	80 - 120	<0.050	ug/g	NC	30
9229515	Acid Extractable Molybdenum (Mo)	2024/02/21	96	75 - 125	96	80 - 120	<0.50	ug/g	NC	30
9229515	Acid Extractable Nickel (Ni)	2024/02/21	96	75 - 125	99	80 - 120	<0.50	ug/g	1.2	30
9229515	Acid Extractable Selenium (Se)	2024/02/21	97	75 - 125	101	80 - 120	<0.50	ug/g	NC	30
9229515	Acid Extractable Silver (Ag)	2024/02/21	96	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
9229515	Acid Extractable Thallium (Tl)	2024/02/21	100	75 - 125	103	80 - 120	<0.050	ug/g	1.2	30

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Bureau Veritas Job #: C448271

Report Date: 2024/02/22

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9229515	Acid Extractable Uranium (U)	2024/02/21	97	75 - 125	100	80 - 120	<0.050	ug/g	1.3	30
9229515	Acid Extractable Vanadium (V)	2024/02/21	103	75 - 125	100	80 - 120	<5.0	ug/g	2.3	30
9229515	Acid Extractable Zinc (Zn)	2024/02/21	NC	75 - 125	106	80 - 120	<5.0	ug/g	2.5	30
9229536	Hot Water Ext. Boron (B)	2024/02/21	105	75 - 125	107	75 - 125	<0.050	ug/g	3.8	40
9229656	Conductivity	2024/02/21			101	90 - 110	<0.002	mS/cm	2.5	10
9231182	Chromium (VI)	2024/02/21	89	70 - 130	90	80 - 120	<0.18	ug/g	NC	35
9233683	F4G-sg (Grav. Heavy Hydrocarbons)	2024/02/22	NC	65 - 135	101	65 - 135	<100	ug/g	0	50

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.

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

Bureau Veritas Job #: C448271

Report Date: 2024/02/22

WSP Canada Inc.

Client Project #: CA0010794.5857 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5857

Sampler Initials: VL

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.



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

CI



NONT-2024-02-1135

Page 1 of 2

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#25670 WSP Canada Inc.	Company Name:	#35494 WSP Canada Inc.	Quotation #:	C31027
Attention:	Accounts Payable	Attention:	Michael Hu	P.O. #:	CA0010794.5758
Address:	215 Shields Court Unit # 1 Markham ON L3R 8V2	Address:	351 Steelcase Road West, Units 10 and 12 Markham ON L3R 4H9	Project:	CA0010794.5758 task 102
Tel:	(905) 475-2625	Tel:	(905) 475-0065	Project Name:	Dufferin St Transfer Station
Email:	CAPayablesInvoice@wsp.com	Email:	michael.hu@wsp.com	Site #:	
				Sampled By:	VL

Order #:



Project Manager:

Gina Baybayan



C#975579-02-01

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)			Other Regulations		Special Instructions		ANALYSIS REQUESTED (PLEASE BE SPECIFIC)												Turnaround Time (TAT) Required:	
<input checked="" type="checkbox"/> Table 1	<input checked="" type="checkbox"/> Res/Park	<input type="checkbox"/> Medium/Fine	<input type="checkbox"/> CCME	<input type="checkbox"/> Sanitary Sewer Bylaw			Field Filtered (please circle):	<input type="checkbox"/> Reg 405 Excess Soil Bulk VOCs	<input type="checkbox"/> Reg 405 Excess Soil Bulk BTEX/F1-F4	<input type="checkbox"/> Reg 405 Excess Soil Bulk SVOCs	<input type="checkbox"/> Reg 405 Excess Soil Bulk PCBs	<input type="checkbox"/> Reg 405 Excess Soil Bulk Inorganics	<input type="checkbox"/> Reg 558 TCLP Metals	<input type="checkbox"/> Reg 558 TCLP VOCs	<input type="checkbox"/> Reg 558 TCLP PCBs	<input type="checkbox"/> Reg 558 TCLP Benzene HS	<input checked="" type="checkbox"/> Regular (Standard) TAT:	Please provide advance notice for rush projects		
<input type="checkbox"/> Table 2	<input type="checkbox"/> Ind/Comm	<input type="checkbox"/> Coarse	<input type="checkbox"/> Reg 558	<input type="checkbox"/> Storm Sewer Bylaw													(will be applied if Rush TAT is not specified):			
<input type="checkbox"/> Table 3	<input type="checkbox"/> Agri/Other	<input type="checkbox"/> For RSC	<input type="checkbox"/> MISA	<input type="checkbox"/> Municipality													Standard TAT = 5-7 Working days for most tests.			
<input type="checkbox"/> Table			<input type="checkbox"/> PWQO	<input type="checkbox"/> Reg 406 Table													Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.			
			<input type="checkbox"/> Other														Job Specific Rush TAT (if applies to entire submission)			
Include Criteria on Certificate of Analysis (Y/N)?																	Date Required: _____ Time Required: _____			
																	Rush Confirmation Number: _____ (call lab for #)			
Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle):	Metals / Hg / Cr-VI											# of Bottles	Comments		
1	BH23-12-SS1	14 Feb 2024	—	SOIL	NIA				X	X	X						4			
2	BH23-12-SS2		—														4			
3	BH23-12-SS3		—														4			
4	BH23-12-SS4		—				X	X	X	X	X						4			
5	BH23-12-SS5		—														4			
6	BH23-12-SS6		—														4	*not enough recovery in 250mL jar		
7	BH23-12-SS8	14 Feb 2024	—	SOIL	NIA	X	X										4	*not enough recovery in 250mL jar.		
8	BH23-13																			
9	BH23-13																			
10	BH23-13																			

* 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				
Rebecca Rodricks			24/02/25		1335		Michael Hu			20/02/25		13:43				Time Sensitive	Temperature (°C) on Receipt	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.

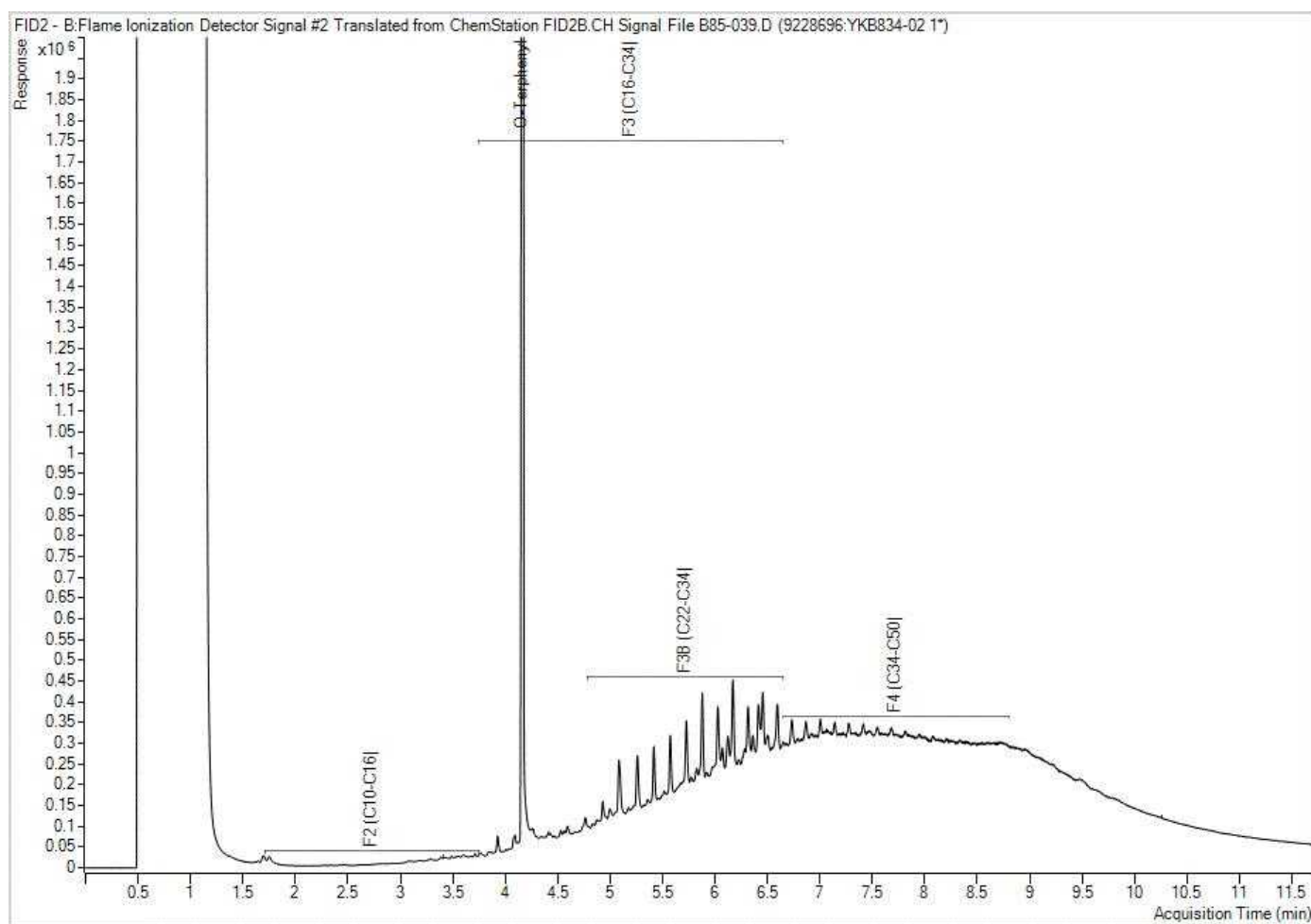
** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/CHAIN-CUSTODY-FORMS-COCS.

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

White: Bureau Veritas Yellow: Client

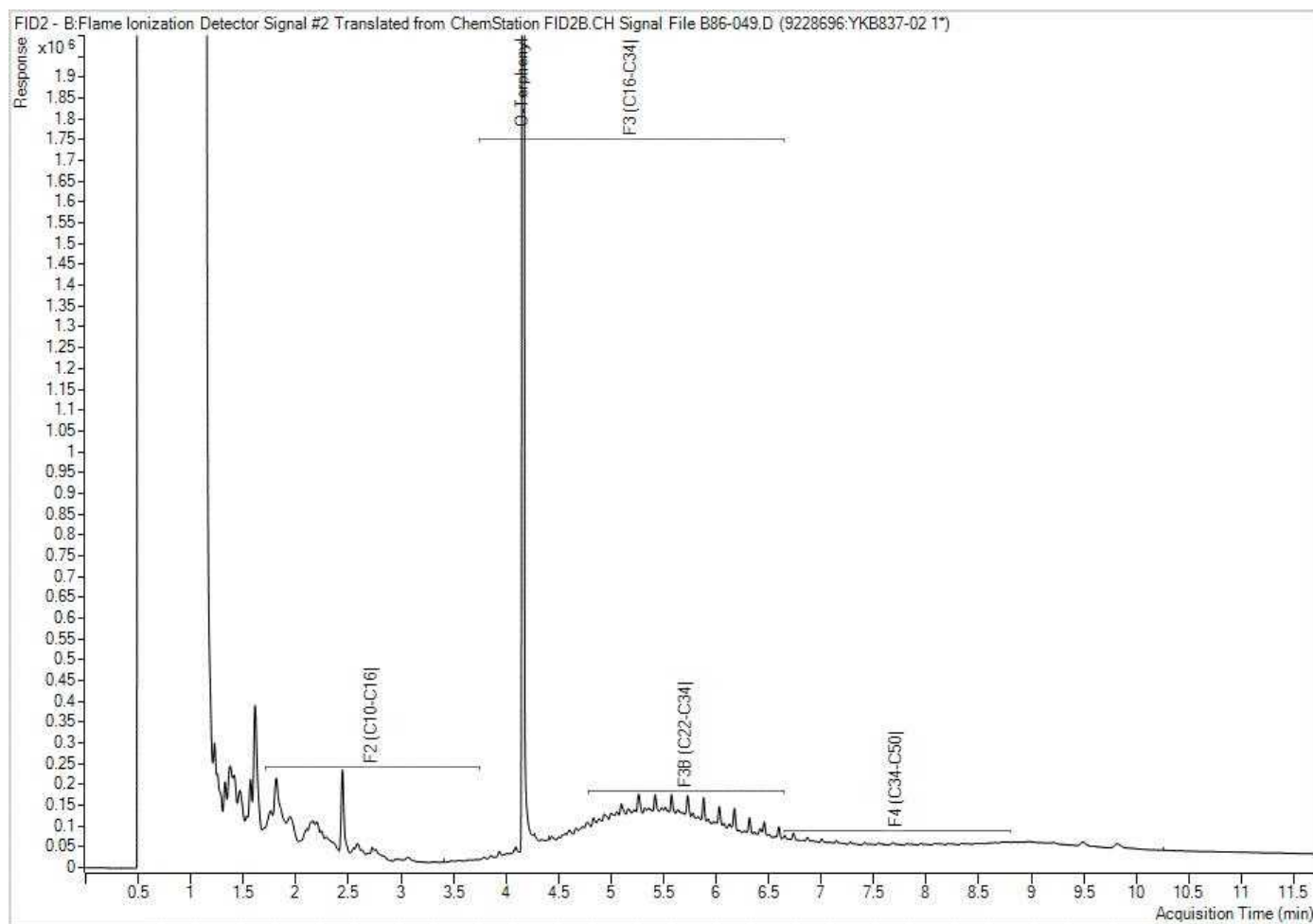
On 1/2

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.



Attention: Michael Hu

WSP Canada Inc.
Steelcase Road
351 Steelcase Road West,
Units 10 and 12
Markham, ON
Canada L3R 4H9

Your P.O. #: CA0010794.5758
Your Project #: CA0010794.5758 TASK 102
Site Location: DUFFERIN ST TRANSFER STATION
Your C.O.C. #: N/A

Report Date: 2024/02/27
Report #: R8044273
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452791

Received: 2024/02/21, 14:32

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Methylnaphthalene Sum	2	N/A	2024/02/26	CAM SOP-00301	EPA 8270D m
ABN Compounds in soil by GC/MS	2	2024/02/23	2024/02/24	CAM SOP-00301	EPA 8270 m
Hot Water Extractable Boron	2	2024/02/23	2024/02/26	CAM SOP-00408	R153 Ana. Prot. 2011
1,3-Dichloropropene Sum	2	N/A	2024/02/26		EPA 8260C m
Free (WAD) Cyanide	2	2024/02/23	2024/02/23	CAM SOP-00457	OMOE E3015 m
Conductivity	2	2024/02/26	2024/02/26	CAM SOP-00414	OMOE E3530 v1 m
Hexavalent Chromium in Soil by IC (1)	2	2024/02/26	2024/02/26	CAM SOP-00436	EPA 3060A/7199 m
Dinitrotoluene Sum	2	2024/02/22	2024/02/26	CAM SOP - 00301	EPA 8270
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2024/02/23	2024/02/23	CAM SOP-00316	CCME CWS m
Petroleum Hydrocarbons F2-F4 in Soil (2)	1	2024/02/23	2024/02/24	CAM SOP-00316	CCME CWS m
Acid Extractable Metals by ICPMS	2	2024/02/23	2024/02/23	CAM SOP-00447	EPA 6020B m
Moisture	1	N/A	2024/02/22	CAM SOP-00445	Carter 2nd ed 70.2 m
Moisture	1	N/A	2024/02/23	CAM SOP-00445	Carter 2nd ed 70.2 m
Polychlorinated Biphenyl in Soil	2	2024/02/26	2024/02/27	CAM SOP-00309	EPA 8082A m
pH CaCl2 EXTRACT	2	2024/02/23	2024/02/23	CAM SOP-00413	EPA 9045 D m
Sodium Adsorption Ratio (SAR)	2	N/A	2024/02/26	CAM SOP-00102	EPA 6010C
Volatile Organic Compounds and F1 PHCs	2	N/A	2024/02/24	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.



Your P.O. #: CA0010794.5758
 Your Project #: CA0010794.5758 TASK 102
 Site Location: DUFFERIN ST TRANSFER STATION
 Your C.O.C. #: N/A

Attention: Michael Hu

WSP Canada Inc.
 Steelcase Road
 351 Steelcase Road West,
 Units 10 and 12
 Markham, ON
 Canada L3R 4H9

Report Date: 2024/02/27
 Report #: R8044273
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452791

Received: 2024/02/21, 14:32

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

(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

27 Feb 2024 15:35:42

Please direct all questions regarding this Certificate of Analysis to:

Ankita Bhalla, Project Manager

Email: Ankita.Bhalla@bureauveritas.com

Phone# (905) 817-5700

=====

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**BUREAU
VERITAS**

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK INORGANICS (SOIL)

Bureau Veritas ID		YLA384	YLA387		
Sampling Date		2024/02/20	2024/02/20		
COC Number		N/A	N/A		
	UNITS	BH23-13-SS3	BH23-13-SS6	RDL	QC Batch
Calculated Parameters					
Sodium Adsorption Ratio	N/A	20	12		9233832
Inorganics					
Conductivity	mS/cm	2.1	1.2	0.002	9240098
Available (CaCl ₂) pH	pH	8.10	8.04		9237256
WAD Cyanide (Free)	ug/g	<0.01	<0.01	0.01	9237447
Chromium (VI)	ug/g	<0.18	0.38	0.18	9240108
Metals					
Hot Water Ext. Boron (B)	ug/g	0.088	0.31	0.050	9237753
Acid Extractable Antimony (Sb)	ug/g	<0.20	<0.20	0.20	9237291
Acid Extractable Arsenic (As)	ug/g	1.4	3.4	1.0	9237291
Acid Extractable Barium (Ba)	ug/g	22	120	0.50	9237291
Acid Extractable Beryllium (Be)	ug/g	<0.20	0.49	0.20	9237291
Acid Extractable Boron (B)	ug/g	<5.0	9.5	5.0	9237291
Acid Extractable Cadmium (Cd)	ug/g	<0.10	<0.10	0.10	9237291
Acid Extractable Chromium (Cr)	ug/g	11	23	1.0	9237291
Acid Extractable Cobalt (Co)	ug/g	2.9	8.3	0.10	9237291
Acid Extractable Copper (Cu)	ug/g	6.8	17	0.50	9237291
Acid Extractable Lead (Pb)	ug/g	5.1	5.7	1.0	9237291
Acid Extractable Molybdenum (Mo)	ug/g	<0.50	<0.50	0.50	9237291
Acid Extractable Nickel (Ni)	ug/g	6.0	18	0.50	9237291
Acid Extractable Selenium (Se)	ug/g	<0.50	<0.50	0.50	9237291
Acid Extractable Silver (Ag)	ug/g	<0.20	<0.20	0.20	9237291
Acid Extractable Thallium (Tl)	ug/g	0.058	0.13	0.050	9237291
Acid Extractable Uranium (U)	ug/g	0.33	0.71	0.050	9237291
Acid Extractable Vanadium (V)	ug/g	16	33	5.0	9237291
Acid Extractable Zinc (Zn)	ug/g	22	42	5.0	9237291
Acid Extractable Mercury (Hg)	ug/g	<0.050	<0.050	0.050	9237291
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



BUREAU
VERITAS

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK PCBS (SOIL)

Bureau Veritas ID		YLA384	YLA387		
Sampling Date		2024/02/20	2024/02/20		
COC Number		N/A	N/A		
	UNITS	BH23-13-SS3	BH23-13-SS6	RDL	QC Batch
PCBs					
Aroclor 1242	ug/g	<0.010	<0.010	0.010	9240203
Aroclor 1248	ug/g	<0.010	<0.010	0.010	9240203
Aroclor 1254	ug/g	<0.010	<0.010	0.010	9240203
Aroclor 1260	ug/g	<0.010	<0.010	0.010	9240203
Total PCB	ug/g	<0.010	<0.010	0.010	9240203
Surrogate Recovery (%)					
Decachlorobiphenyl	%	74	74		9240203
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



BUREAU
VERITAS

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK SVOCs (SOIL)

Bureau Veritas ID		YLA384			YLA384			YLA387		
Sampling Date		2024/02/20			2024/02/20			2024/02/20		
COC Number		N/A			N/A			N/A		
	UNITS	BH23-13-SS3	RDL	QC Batch	BH23-13-SS3 Lab-Dup	RDL	QC Batch	BH23-13-SS6	RDL	QC Batch
Semivolatile Organics										
1,2,4-Trichlorobenzene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
1-Methylnaphthalene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
2,4,5-Trichlorophenol	ug/g	<0.08	0.08	9236582	<0.08	0.08	9236582	<0.08	0.08	9236582
2,4,6-Trichlorophenol	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
2,4-Dichlorophenol	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
2,4-Dimethylphenol	ug/g	<0.2	0.2	9236582	<0.2	0.2	9236582	<0.2	0.2	9236582
2,4-Dinitrophenol	ug/g	<0.5	0.5	9236582	<0.5	0.5	9236582	<0.5	0.5	9236582
2,4-Dinitrotoluene	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
2,6-Dinitrotoluene	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
2-Chlorophenol	ug/g	<0.08	0.08	9236582	<0.08	0.08	9236582	<0.08	0.08	9236582
2-Methylnaphthalene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
3,3'-Dichlorobenzidine	ug/g	<0.5	0.5	9236582	<0.5	0.5	9236582	<0.5	0.5	9236582
Acenaphthene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
Acenaphthylene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Anthracene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
Benzo(a)anthracene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Benzo(a)pyrene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Benzo(b,j)fluoranthene	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
Benzo(g,h,i)perylene	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
Benzo(k)fluoranthene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
Biphenyl	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Bis(2-chloroethyl)ether	ug/g	<0.2	0.2	9236582	<0.2	0.2	9236582	<0.2	0.2	9236582
Bis(2-chloroisopropyl)ether	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
Bis(2-ethylhexyl)phthalate	ug/g	<1	1	9236582	<1	1	9236582	<1	1	9236582
Chrysene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Dibenzo(a,h)anthracene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Diethyl phthalate	ug/g	<0.2	0.2	9236582	<0.2	0.2	9236582	<0.2	0.2	9236582
Dimethyl phthalate	ug/g	<0.2	0.2	9236582	<0.2	0.2	9236582	<0.2	0.2	9236582
Fluoranthene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Fluorene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Lab-Dup = Laboratory Initiated Duplicate										



**BUREAU
VERITAS**

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK SVOCs (SOIL)

Bureau Veritas ID		YLA384			YLA384			YLA387		
Sampling Date		2024/02/20			2024/02/20			2024/02/20		
COC Number		N/A			N/A			N/A		
	UNITS	BH23-13-SS3	RDL	QC Batch	BH23-13-SS3 Lab-Dup	RDL	QC Batch	BH23-13-SS6	RDL	QC Batch
Indeno(1,2,3-cd)pyrene	ug/g	<0.08	0.08	9236582	<0.08	0.08	9236582	<0.08	0.08	9236582
Naphthalene	ug/g	<0.03	0.03	9236582	<0.03	0.03	9236582	<0.03	0.03	9236582
p-Chloroaniline	ug/g	<0.2	0.2	9236582	<0.2	0.2	9236582	<0.2	0.2	9236582
Pentachlorophenol	ug/g	<0.1	0.1	9236582	<0.1	0.1	9236582	<0.1	0.1	9236582
Phenanthrene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Phenol	ug/g	<0.09	0.09	9236582	<0.09	0.09	9236582	<0.09	0.09	9236582
Pyrene	ug/g	<0.05	0.05	9236582	<0.05	0.05	9236582	<0.05	0.05	9236582
Calculated Parameters										
2,4- & 2,6-Dinitrotoluene	ug/g	<0.14	0.14	9233829				<0.14	0.14	9233829
Methylnaphthalene, 2-(1-)	ug/g	<0.042	0.042	9233828				<0.042	0.042	9233828
Surrogate Recovery (%)										
2,4,6-Tribromophenol	%	99		9236582	92		9236582	87		9236582
2-Fluorobiphenyl	%	63		9236582	71		9236582	59		9236582
D14-Terphenyl (FS)	%	107		9236582	103		9236582	104		9236582
D5-Nitrobenzene	%	55		9236582	68		9236582	53		9236582
RDL = Reportable Detection Limit										
QC Batch = Quality Control Batch										
Lab-Dup = Laboratory Initiated Duplicate										



**BUREAU
VERITAS**

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YLA384		YLA387		
Sampling Date		2024/02/20		2024/02/20		
COC Number		N/A		N/A		
	UNITS	BH23-13-SS3	QC Batch	BH23-13-SS6	RDL	QC Batch
Calculated Parameters						
1,3-Dichloropropene (cis+trans)	ug/g	<0.050	9233830	<0.050	0.050	9233830
Volatile Organics						
Acetone (2-Propanone)	ug/g	<0.49	9236713	<0.49	0.49	9236713
Benzene	ug/g	<0.0060	9236713	<0.0060	0.0060	9236713
Bromodichloromethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
Bromoform	ug/g	<0.040	9236713	<0.040	0.040	9236713
Bromomethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
Carbon Tetrachloride	ug/g	<0.040	9236713	<0.040	0.040	9236713
Chlorobenzene	ug/g	<0.040	9236713	<0.040	0.040	9236713
Chloroform	ug/g	<0.040	9236713	<0.040	0.040	9236713
Dibromochloromethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,2-Dichlorobenzene	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,3-Dichlorobenzene	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,4-Dichlorobenzene	ug/g	<0.040	9236713	<0.040	0.040	9236713
Dichlorodifluoromethane (FREON 12)	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,1-Dichloroethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,2-Dichloroethane	ug/g	<0.049	9236713	<0.049	0.049	9236713
1,1-Dichloroethylene	ug/g	<0.040	9236713	<0.040	0.040	9236713
cis-1,2-Dichloroethylene	ug/g	<0.040	9236713	<0.040	0.040	9236713
trans-1,2-Dichloroethylene	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,2-Dichloropropane	ug/g	<0.040	9236713	<0.040	0.040	9236713
cis-1,3-Dichloropropene	ug/g	<0.030	9236713	<0.030	0.030	9236713
trans-1,3-Dichloropropene	ug/g	<0.040	9236713	<0.040	0.040	9236713
Ethylbenzene	ug/g	<0.010	9236713	<0.010	0.010	9236713
Ethylene Dibromide	ug/g	<0.040	9236713	<0.040	0.040	9236713
Hexane	ug/g	<0.040	9236713	<0.040	0.040	9236713
Methylene Chloride(Dichloromethane)	ug/g	<0.049	9236713	<0.049	0.049	9236713
Methyl Ethyl Ketone (2-Butanone)	ug/g	<0.40	9236713	<0.40	0.40	9236713
Methyl Isobutyl Ketone	ug/g	<0.40	9236713	<0.40	0.40	9236713
Methyl t-butyl ether (MTBE)	ug/g	<0.040	9236713	<0.040	0.040	9236713
Styrene	ug/g	<0.040	9236713	<0.040	0.040	9236713
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



**BUREAU
VERITAS**

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

O.REG 406 EXCESS SOIL BULK VOCS/F1-F4 (SOIL)

Bureau Veritas ID		YLA384		YLA387		
Sampling Date		2024/02/20		2024/02/20		
COC Number		N/A		N/A		
	UNITS	BH23-13-SS3	QC Batch	BH23-13-SS6	RDL	QC Batch
1,1,1,2-Tetrachloroethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,1,2,2-Tetrachloroethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
Tetrachloroethylene	ug/g	<0.040	9236713	<0.040	0.040	9236713
Toluene	ug/g	<0.020	9236713	<0.020	0.020	9236713
1,1,1-Trichloroethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
1,1,2-Trichloroethane	ug/g	<0.040	9236713	<0.040	0.040	9236713
Trichloroethylene	ug/g	<0.010	9236713	<0.010	0.010	9236713
Trichlorofluoromethane (FREON 11)	ug/g	<0.040	9236713	<0.040	0.040	9236713
Vinyl Chloride	ug/g	<0.019	9236713	<0.019	0.019	9236713
p+m-Xylene	ug/g	<0.020	9236713	<0.020	0.020	9236713
o-Xylene	ug/g	<0.020	9236713	<0.020	0.020	9236713
Total Xylenes	ug/g	<0.020	9236713	<0.020	0.020	9236713
F1 (C6-C10)	ug/g	<10	9236713	<10	10	9236713
F1 (C6-C10) - BTEX	ug/g	<10	9236713	<10	10	9236713
F2-F4 Hydrocarbons						
F2 (C10-C16 Hydrocarbons)	ug/g	75	9236484	63	10	9236479
F3 (C16-C34 Hydrocarbons)	ug/g	160	9236484	96	50	9236479
F4 (C34-C50 Hydrocarbons)	ug/g	<50	9236484	<50	50	9236479
Reached Baseline at C50	ug/g	Yes	9236484	Yes		9236479
Surrogate Recovery (%)						
o-Terphenyl	%	86	9236484	91		9236479
4-Bromofluorobenzene	%	100	9236713	101		9236713
D10-o-Xylene	%	111	9236713	107		9236713
D4-1,2-Dichloroethane	%	96	9236713	95		9236713
D8-Toluene	%	98	9236713	101		9236713
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						



RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		YLA384		YLA387	YLA387		
Sampling Date		2024/02/20		2024/02/20	2024/02/20		
COC Number		N/A		N/A	N/A		
	UNITS	BH23-13-SS3	QC Batch	BH23-13-SS6	BH23-13-SS6 Lab-Dup	RDL	QC Batch
Inorganics							
Moisture	%	16	9236579	18	18	1.0	9234333
RDL = Reportable Detection Limit							
QC Batch = Quality Control Batch							
Lab-Dup = Laboratory Initiated Duplicate							



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VERITAS

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

TEST SUMMARY

Bureau Veritas ID: YLA384
Sample ID: BH23-13-SS3
Matrix: Soil

Collected: 2024/02/20
Shipped:
Received: 2024/02/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9233828	N/A	2024/02/26	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9236582	2024/02/23	2024/02/24	Adriana Zurita
Hot Water Extractable Boron	ICP	9237753	2024/02/23	2024/02/26	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9233830	N/A	2024/02/26	Automated Statchk
Free (WAD) Cyanide	TECH	9237447	2024/02/23	2024/02/23	Jency Sara Johnson
Conductivity	AT	9240098	2024/02/26	2024/02/26	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9240108	2024/02/26	2024/02/26	Violeta Porcila
Dinitrotoluene Sum	CALC	9233829	2024/02/26	2024/02/26	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9236484	2024/02/23	2024/02/24	Dennis Ngundu
Acid Extractable Metals by ICPMS	ICP/MS	9237291	2024/02/23	2024/02/23	Daniel Teclu
Moisture	BAL	9236579	N/A	2024/02/23	Ibadat Preet
Polychlorinated Biphenyl in Soil	GC/ECD	9240203	2024/02/26	2024/02/27	Svitlana Shaula
pH CaCl2 EXTRACT	AT	9237256	2024/02/23	2024/02/23	Vidhi Khatri
Sodium Adsorption Ratio (SAR)	CALC/MET	9233832	N/A	2024/02/26	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9236713	N/A	2024/02/24	Cheng-Yu Sha

Bureau Veritas ID: YLA384 Dup
Sample ID: BH23-13-SS3
Matrix: Soil

Collected: 2024/02/20
Shipped:
Received: 2024/02/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
ABN Compounds in soil by GC/MS	GC/MS	9236582	2024/02/23	2024/02/24	Adriana Zurita

Bureau Veritas ID: YLA387
Sample ID: BH23-13-SS6
Matrix: Soil

Collected: 2024/02/20
Shipped:
Received: 2024/02/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Methylnaphthalene Sum	CALC	9233828	N/A	2024/02/26	Automated Statchk
ABN Compounds in soil by GC/MS	GC/MS	9236582	2024/02/23	2024/02/24	Adriana Zurita
Hot Water Extractable Boron	ICP	9237753	2024/02/23	2024/02/26	Medhat Nasr
1,3-Dichloropropene Sum	CALC	9233830	N/A	2024/02/26	Automated Statchk
Free (WAD) Cyanide	TECH	9237447	2024/02/23	2024/02/23	Jency Sara Johnson
Conductivity	AT	9240098	2024/02/26	2024/02/26	Gurpartee K AUR
Hexavalent Chromium in Soil by IC	IC/SPEC	9240108	2024/02/26	2024/02/26	Violeta Porcila
Dinitrotoluene Sum	CALC	9233829	2024/02/26	2024/02/26	Automated Statchk
Petroleum Hydrocarbons F2-F4 in Soil	GC/FID	9236479	2024/02/23	2024/02/23	(Kent) Maolin Li
Acid Extractable Metals by ICPMS	ICP/MS	9237291	2024/02/23	2024/02/23	Daniel Teclu
Moisture	BAL	9234333	N/A	2024/02/22	Ibadat Preet
Polychlorinated Biphenyl in Soil	GC/ECD	9240203	2024/02/26	2024/02/27	Svitlana Shaula
pH CaCl2 EXTRACT	AT	9237256	2024/02/23	2024/02/23	Vidhi Khatri
Sodium Adsorption Ratio (SAR)	CALC/MET	9233832	N/A	2024/02/26	Automated Statchk
Volatile Organic Compounds and F1 PHCs	GC/MSFD	9236713	N/A	2024/02/24	Cheng-Yu Sha



Bureau Veritas Job #: C452791
Report Date: 2024/02/27

WSP Canada Inc.
Client Project #: CA0010794.5758 TASK 102
Site Location: DUFFERIN ST TRANSFER STATION
Your P.O. #: CA0010794.5758
Sampler Initials: VL

TEST SUMMARY

Bureau Veritas ID: YLA387 Dup
Sample ID: BH23-13-SS6
Matrix: Soil

Collected: 2024/02/20
Shipped:
Received: 2024/02/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Moisture	BAL	9234333	N/A	2024/02/22	Ibadat Preet



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	1.0°C
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Sample YLA387 [BH23-13-SS6] : VOC/F1 Analysis: Soil weight exceeds the protocol specification of approximately 5g in the field preserved vial. Additional methanol was added to the vial to ensure extraction efficiency.

Results relate only to the items tested.



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Bureau Veritas Job #: C452791

Report Date: 2024/02/27

QUALITY ASSURANCE REPORT

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9236479	o-Terphenyl	2024/02/23	92	60 - 130	88	60 - 130	88	%		
9236484	o-Terphenyl	2024/02/23	88	60 - 130	82	60 - 130	83	%		
9236582	2,4,6-Tribromophenol	2024/02/23	93	50 - 130	90	50 - 130	75	%		
9236582	2-Fluorobiphenyl	2024/02/23	68	50 - 130	70	50 - 130	80	%		
9236582	D14-Terphenyl (FS)	2024/02/23	104	50 - 130	102	50 - 130	100	%		
9236582	D5-Nitrobenzene	2024/02/23	64	50 - 130	59	50 - 130	72	%		
9236713	4-Bromofluorobenzene	2024/02/23	100	60 - 140	100	60 - 140	100	%		
9236713	D10-o-Xylene	2024/02/23	119	60 - 130	101	60 - 130	95	%		
9236713	D4-1,2-Dichloroethane	2024/02/23	98	60 - 140	100	60 - 140	98	%		
9236713	D8-Toluene	2024/02/23	101	60 - 140	101	60 - 140	100	%		
9240203	Decachlorobiphenyl	2024/02/27	95	60 - 130	104	60 - 130	104	%		
9234333	Moisture	2024/02/22							0.56	20
9236479	F2 (C10-C16 Hydrocarbons)	2024/02/23	100	60 - 130	97	80 - 120	<10	ug/g	9.4	30
9236479	F3 (C16-C34 Hydrocarbons)	2024/02/23	102	60 - 130	99	80 - 120	<50	ug/g	8.6	30
9236479	F4 (C34-C50 Hydrocarbons)	2024/02/23	108	60 - 130	101	80 - 120	<50	ug/g	3.1	30
9236484	F2 (C10-C16 Hydrocarbons)	2024/02/24	101	60 - 130	90	80 - 120	<10	ug/g	NC	30
9236484	F3 (C16-C34 Hydrocarbons)	2024/02/24	95	60 - 130	87	80 - 120	<50	ug/g	NC	30
9236484	F4 (C34-C50 Hydrocarbons)	2024/02/24	94	60 - 130	86	80 - 120	<50	ug/g	NC	30
9236579	Moisture	2024/02/23							5.0	20
9236582	1,2,4-Trichlorobenzene	2024/02/24	62	50 - 130	70	50 - 130	<0.05	ug/g	NC	40
9236582	1-Methylnaphthalene	2024/02/24	71	50 - 130	71	50 - 130	<0.03	ug/g	NC	40
9236582	2,4,5-Trichlorophenol	2024/02/24	79	50 - 130	74	50 - 130	<0.08	ug/g	NC	40
9236582	2,4,6-Trichlorophenol	2024/02/24	69	50 - 130	71	50 - 130	<0.1	ug/g	NC	40
9236582	2,4-Dichlorophenol	2024/02/24	68	50 - 130	65	50 - 130	<0.1	ug/g	NC	40
9236582	2,4-Dimethylphenol	2024/02/24	60	30 - 130	65	30 - 130	<0.2	ug/g	NC	40
9236582	2,4-Dinitrophenol	2024/02/24	50	30 - 130	45	30 - 130	<0.5	ug/g	NC	40
9236582	2,4-Dinitrotoluene	2024/02/24	75	50 - 130	84	50 - 130	<0.1	ug/g	NC	40
9236582	2,6-Dinitrotoluene	2024/02/24	67	50 - 130	82	50 - 130	<0.1	ug/g	NC	40
9236582	2-Chlorophenol	2024/02/24	68	50 - 130	72	50 - 130	<0.08	ug/g	NC	40
9236582	2-Methylnaphthalene	2024/02/24	68	50 - 130	69	50 - 130	<0.03	ug/g	NC	40



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Bureau Veritas Job #: C452791

Report Date: 2024/02/27

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9236582	3,3'-Dichlorobenzidine	2024/02/24	81	30 - 130	11 (1)	30 - 130	<0.5	ug/g	NC	40
9236582	Acenaphthene	2024/02/24	69	50 - 130	72	50 - 130	<0.03	ug/g	NC	40
9236582	Acenaphthylene	2024/02/24	67	50 - 130	70	50 - 130	<0.05	ug/g	NC	40
9236582	Anthracene	2024/02/24	82	50 - 130	81	50 - 130	<0.03	ug/g	NC	40
9236582	Benzo(a)anthracene	2024/02/24	99	50 - 130	96	50 - 130	<0.05	ug/g	NC	40
9236582	Benzo(a)pyrene	2024/02/24	97	50 - 130	109	50 - 130	<0.05	ug/g	NC	40
9236582	Benzo(b/j)fluoranthene	2024/02/24	88	50 - 130	110	50 - 130	<0.1	ug/g	NC	40
9236582	Benzo(g,h,i)perylene	2024/02/24	100	50 - 130	116	50 - 130	<0.1	ug/g	NC	40
9236582	Benzo(k)fluoranthene	2024/02/24	94	50 - 130	115	50 - 130	<0.03	ug/g	NC	40
9236582	Biphenyl	2024/02/24	66	50 - 130	67	50 - 130	<0.05	ug/g	NC	40
9236582	Bis(2-chloroethyl)ether	2024/02/24	66	50 - 130	61	50 - 130	<0.2	ug/g	NC	40
9236582	Bis(2-chloroisopropyl)ether	2024/02/24	68	50 - 130	64	50 - 130	<0.1	ug/g	NC	40
9236582	Bis(2-ethylhexyl)phthalate	2024/02/24	80	50 - 130	64	50 - 130	<1	ug/g	NC	40
9236582	Chrysene	2024/02/24	90	50 - 130	91	50 - 130	<0.05	ug/g	NC	40
9236582	Dibenzo(a,h)anthracene	2024/02/24	101	50 - 130	118	50 - 130	<0.05	ug/g	NC	40
9236582	Diethyl phthalate	2024/02/24	88	50 - 130	99	50 - 130	<0.2	ug/g	NC	40
9236582	Dimethyl phthalate	2024/02/24	72	50 - 130	84	50 - 130	<0.2	ug/g	NC	40
9236582	Fluoranthene	2024/02/24	110	50 - 130	109	50 - 130	<0.05	ug/g	NC	40
9236582	Fluorene	2024/02/24	78	50 - 130	83	50 - 130	<0.03	ug/g	NC	40
9236582	Indeno(1,2,3-cd)pyrene	2024/02/24	97	50 - 130	113	50 - 130	<0.08	ug/g	NC	40
9236582	Naphthalene	2024/02/24	61	50 - 130	64	50 - 130	<0.03	ug/g	NC	40
9236582	p-Chloroaniline	2024/02/24	53	30 - 130	51	30 - 130	<0.2	ug/g	NC	40
9236582	Pentachlorophenol	2024/02/24	45 (1)	50 - 130	70	50 - 130	<0.1	ug/g	NC	40
9236582	Phenanthrene	2024/02/24	84	50 - 130	84	50 - 130	<0.05	ug/g	NC	40
9236582	Phenol	2024/02/24	65	30 - 130	59	30 - 130	<0.09	ug/g	NC	40
9236582	Pyrene	2024/02/24	100	50 - 130	98	50 - 130	<0.05	ug/g	NC	40
9236713	1,1,1,2-Tetrachloroethane	2024/02/23	99	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9236713	1,1,1-Trichloroethane	2024/02/23	99	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9236713	1,1,2,2-Tetrachloroethane	2024/02/23	99	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9236713	1,1,2-Trichloroethane	2024/02/23	93	60 - 140	92	60 - 130	<0.040	ug/g	NC	50

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VERITAS

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9236713	1,1-Dichloroethane	2024/02/23	104	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9236713	1,1-Dichloroethylene	2024/02/23	103	60 - 140	106	60 - 130	<0.040	ug/g	NC	50
9236713	1,2-Dichlorobenzene	2024/02/23	94	60 - 140	94	60 - 130	<0.040	ug/g	NC	50
9236713	1,2-Dichloroethane	2024/02/23	90	60 - 140	91	60 - 130	<0.049	ug/g	NC	50
9236713	1,2-Dichloropropane	2024/02/23	101	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9236713	1,3-Dichlorobenzene	2024/02/23	97	60 - 140	98	60 - 130	<0.040	ug/g	NC	50
9236713	1,4-Dichlorobenzene	2024/02/23	106	60 - 140	105	60 - 130	<0.040	ug/g	NC	50
9236713	Acetone (2-Propanone)	2024/02/23	94	60 - 140	98	60 - 140	<0.49	ug/g	NC	50
9236713	Benzene	2024/02/23	93	60 - 140	95	60 - 130	<0.0060	ug/g	NC	50
9236713	Bromodichloromethane	2024/02/23	102	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9236713	Bromoform	2024/02/23	89	60 - 140	86	60 - 130	<0.040	ug/g	NC	50
9236713	Bromomethane	2024/02/23	88	60 - 140	87	60 - 140	<0.040	ug/g	NC	50
9236713	Carbon Tetrachloride	2024/02/23	97	60 - 140	99	60 - 130	<0.040	ug/g	NC	50
9236713	Chlorobenzene	2024/02/23	102	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9236713	Chloroform	2024/02/23	102	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9236713	cis-1,2-Dichloroethylene	2024/02/23	98	60 - 140	97	60 - 130	<0.040	ug/g	NC	50
9236713	cis-1,3-Dichloropropene	2024/02/23	91	60 - 140	94	60 - 130	<0.030	ug/g	NC	50
9236713	Dibromochloromethane	2024/02/23	95	60 - 140	92	60 - 130	<0.040	ug/g	NC	50
9236713	Dichlorodifluoromethane (FREON 12)	2024/02/23	77	60 - 140	78	60 - 140	<0.040	ug/g	NC	50
9236713	Ethylbenzene	2024/02/23	92	60 - 140	94	60 - 130	<0.010	ug/g	NC	50
9236713	Ethylene Dibromide	2024/02/23	95	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9236713	F1 (C6-C10) - BTEX	2024/02/23					<10	ug/g	NC	30
9236713	F1 (C6-C10)	2024/02/23	95	60 - 140	93	80 - 120	<10	ug/g	NC	30
9236713	Hexane	2024/02/23	100	60 - 140	102	60 - 130	<0.040	ug/g	NC	50
9236713	Methyl Ethyl Ketone (2-Butanone)	2024/02/23	98	60 - 140	102	60 - 140	<0.40	ug/g	NC	50
9236713	Methyl Isobutyl Ketone	2024/02/23	97	60 - 140	101	60 - 130	<0.40	ug/g	NC	50
9236713	Methyl t-butyl ether (MTBE)	2024/02/23	100	60 - 140	101	60 - 130	<0.040	ug/g	NC	50
9236713	Methylene Chloride(Dichloromethane)	2024/02/23	99	60 - 140	99	60 - 130	<0.049	ug/g	NC	50
9236713	o-Xylene	2024/02/23	85	60 - 140	87	60 - 130	<0.020	ug/g	NC	50
9236713	p+m-Xylene	2024/02/23	98	60 - 140	101	60 - 130	<0.020	ug/g	NC	50

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VERITAS

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9236713	Styrene	2024/02/23	103	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9236713	Tetrachloroethylene	2024/02/23	95	60 - 140	95	60 - 130	<0.040	ug/g	NC	50
9236713	Toluene	2024/02/23	91	60 - 140	91	60 - 130	<0.020	ug/g	NC	50
9236713	Total Xylenes	2024/02/23					<0.020	ug/g	NC	50
9236713	trans-1,2-Dichloroethylene	2024/02/23	101	60 - 140	100	60 - 130	<0.040	ug/g	NC	50
9236713	trans-1,3-Dichloropropene	2024/02/23	92	60 - 140	93	60 - 130	<0.040	ug/g	NC	50
9236713	Trichloroethylene	2024/02/23	98	60 - 140	99	60 - 130	<0.010	ug/g	NC	50
9236713	Trichlorofluoromethane (FREON 11)	2024/02/23	102	60 - 140	104	60 - 130	<0.040	ug/g	NC	50
9236713	Vinyl Chloride	2024/02/23	103	60 - 140	103	60 - 130	<0.019	ug/g	NC	50
9237256	Available (CaCl ₂) pH	2024/02/23			100	97 - 103			0.66	N/A
9237291	Acid Extractable Antimony (Sb)	2024/02/23	98	75 - 125	98	80 - 120	<0.20	ug/g	NC	30
9237291	Acid Extractable Arsenic (As)	2024/02/23	100	75 - 125	97	80 - 120	<1.0	ug/g	9.5	30
9237291	Acid Extractable Barium (Ba)	2024/02/23	NC	75 - 125	96	80 - 120	<0.50	ug/g	10	30
9237291	Acid Extractable Beryllium (Be)	2024/02/23	100	75 - 125	95	80 - 120	<0.20	ug/g	4.4	30
9237291	Acid Extractable Boron (B)	2024/02/23	95	75 - 125	94	80 - 120	<5.0	ug/g	6.1	30
9237291	Acid Extractable Cadmium (Cd)	2024/02/23	98	75 - 125	96	80 - 120	<0.10	ug/g	6.8	30
9237291	Acid Extractable Chromium (Cr)	2024/02/23	97	75 - 125	95	80 - 120	<1.0	ug/g	9.6	30
9237291	Acid Extractable Cobalt (Co)	2024/02/23	96	75 - 125	96	80 - 120	<0.10	ug/g	8.2	30
9237291	Acid Extractable Copper (Cu)	2024/02/23	99	75 - 125	97	80 - 120	<0.50	ug/g	3.9	30
9237291	Acid Extractable Lead (Pb)	2024/02/23	NC	75 - 125	97	80 - 120	<1.0	ug/g	12	30
9237291	Acid Extractable Mercury (Hg)	2024/02/23	96	75 - 125	98	80 - 120	<0.050	ug/g	NC	30
9237291	Acid Extractable Molybdenum (Mo)	2024/02/23	100	75 - 125	92	80 - 120	<0.50	ug/g	0.70	30
9237291	Acid Extractable Nickel (Ni)	2024/02/23	96	75 - 125	97	80 - 120	<0.50	ug/g	12	30
9237291	Acid Extractable Selenium (Se)	2024/02/23	98	75 - 125	100	80 - 120	<0.50	ug/g	NC	30
9237291	Acid Extractable Silver (Ag)	2024/02/23	97	75 - 125	95	80 - 120	<0.20	ug/g	NC	30
9237291	Acid Extractable Thallium (Tl)	2024/02/23	96	75 - 125	99	80 - 120	<0.050	ug/g	0.20	30
9237291	Acid Extractable Uranium (U)	2024/02/23	97	75 - 125	95	80 - 120	<0.050	ug/g	10	30
9237291	Acid Extractable Vanadium (V)	2024/02/23	101	75 - 125	96	80 - 120	<5.0	ug/g	9.3	30
9237291	Acid Extractable Zinc (Zn)	2024/02/23	NC	75 - 125	98	80 - 120	<5.0	ug/g	16	30
9237447	WAD Cyanide (Free)	2024/02/23	98	75 - 125	95	80 - 120	<0.01	ug/g	NC	35

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VERITAS

Bureau Veritas Job #: C452791

Report Date: 2024/02/27

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
9237753	Hot Water Ext. Boron (B)	2024/02/26	102	75 - 125	99	75 - 125	<0.050	ug/g	0.12	40
9240098	Conductivity	2024/02/26			103	90 - 110	<0.002	mS/cm	1.1	10
9240108	Chromium (VI)	2024/02/26	88	75 - 125	93	80 - 120	<0.18	ug/g	NC	35
9240203	Aroclor 1242	2024/02/27					<0.010	ug/g	NC	50
9240203	Aroclor 1248	2024/02/27					<0.010	ug/g	NC	50
9240203	Aroclor 1254	2024/02/27					<0.010	ug/g	NC	50
9240203	Aroclor 1260	2024/02/27	89	30 - 130	106	30 - 130	<0.010	ug/g	NC	50
9240203	Total PCB	2024/02/27	89	30 - 130	106	30 - 130	<0.010	ug/g	NC	50

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.

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 $\leq 2 \times \text{RDL}$).

(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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Bureau Veritas Job #: C452791

Report Date: 2024/02/27

WSP Canada Inc.

Client Project #: CA0010794.5758 TASK 102

Site Location: DUFFERIN ST TRANSFER STATION

Your P.O. #: CA0010794.5758

Sampler Initials: VL

VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, Scientific Specialist

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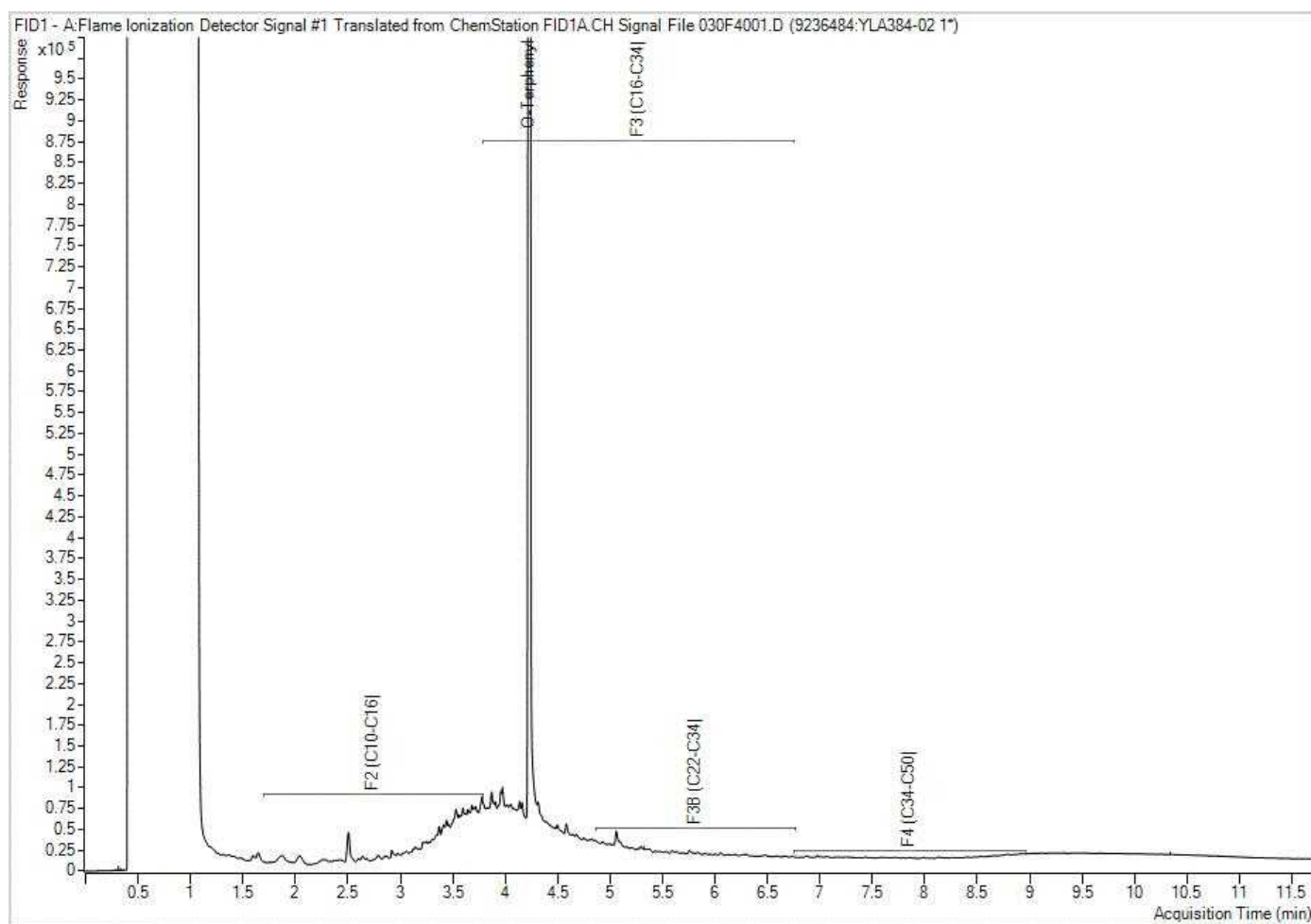
6740 Campobello Road, Mississauga, Ontario L5N 2L8
Phone: 905-817-5700 Fax: 905-817-5779 Toll Free: 800-563-6266

ENV COC - 00014v5

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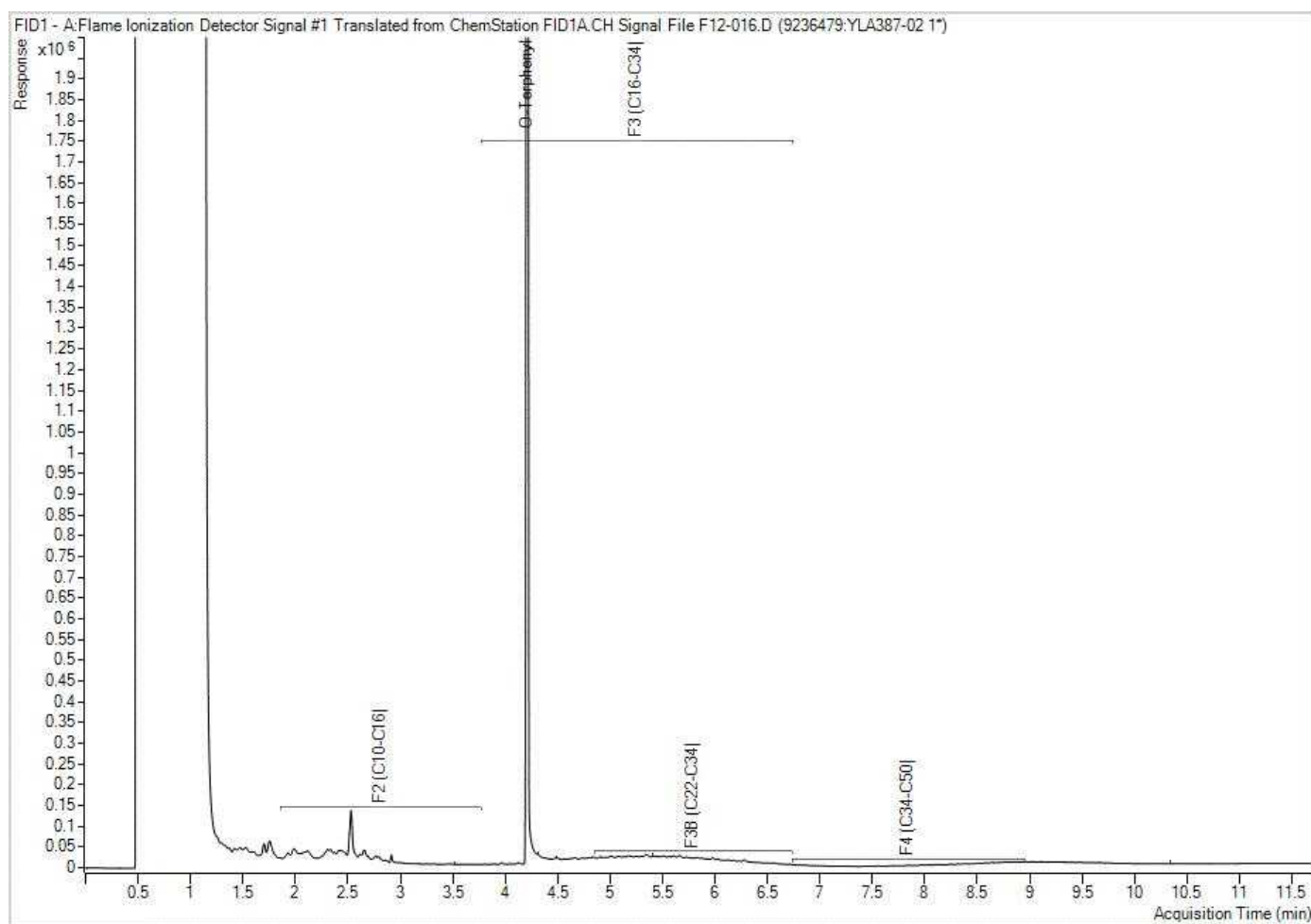
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Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.

Petroleum Hydrocarbons F2-F4 in Soil Chromatogram



Note: This information is provided for reference purposes only. Should detailed chemist interpretation or fingerprinting be required, please contact the laboratory.



Your P.O. #: EICA0010794.5758
Your Project #: CA-EI-CA0010794.5758 TASK 102
Site#: Dufferin St Transfer Station
Your C.O.C. #: 975579-04-01

Attention: Michael Hu

WSP Canada Inc.
Steelcase Road
351 Steelcase Road West,
Units 10 and 12
Markham, ON
Canada L3R 4H9

Report Date: 2024/03/01

Report #: R8049493

Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C457258

Received: 2024/02/26, 15:20

Sample Matrix: Soil
Samples Received: 2

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
Total Metals in TCLP Leachate by ICPMS	2	2024/02/29	2024/02/29	CAM SOP-00447	EPA 6020B m
Ignitability of a Sample	2	2024/02/29	2024/02/29	CAM SOP-00432	EPA 1030 Rev. 1 m
Polychlorinated Biphenyl in Leachate	2	2024/02/29	2024/03/01	CAM SOP-00309	EPA 8082A m
TCLP - % Solids	2	2024/02/28	2024/02/29	CAM SOP-00401	EPA 1311 Update I m
TCLP - Extraction Fluid	2	N/A	2024/02/29	CAM SOP-00401	EPA 1311 Update I m
TCLP - Initial and final pH	2	N/A	2024/02/29	CAM SOP-00401	EPA 1311 Update I m
TCLP Zero Headspace Extraction	2	2024/02/27	2024/02/28	CAM SOP-00430	EPA 1311 m
VOCs in ZHE Leachates	2	2024/02/28	2024/02/28	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.

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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.



Your P.O. #: EICA0010794.5758
Your Project #: CA-EI-CA0010794.5758 TASK 102
Site#: Dufferin St Transfer Station
Your C.O.C. #: 975579-04-01

Attention: Michael Hu

WSP Canada Inc.
Steelcase Road
351 Steelcase Road West,
Units 10 and 12
Markham, ON
Canada L3R 4H9

Report Date: 2024/03/01
Report #: R8049493
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C457258

Received: 2024/02/26, 15:20

Encryption Key



**AUTHORIZED REPORT
RAPPORT AUTORISÉ**

Bureau Veritas

01 Mar 2024 18:05:06

Please direct all questions regarding this Certificate of Analysis to:

Gina Baybayan, Project Manager
Email: Gina.Baybayan@bureauveritas.com
Phone# (905)817-5766

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BUREAU
VERITAS

Bureau Veritas Job #: C457258

Report Date: 2024/03/01

WSP Canada Inc.

Client Project #: CA-EI-CA0010794.5758 TASK 102

Your P.O. #: EICA0010794.5758

Sampler Initials: EW

TCLP LEACHATE PREPARATION (SOIL)

Bureau Veritas ID		YMA307	YMA308		
Sampling Date		2024/02/23	2024/02/23		
COC Number		975579-04-01	975579-04-01		
	UNITS	BH23-12 TCLP	BH23-13 TCLP	RDL	QC Batch
Inorganics					
Final pH	pH	5.63	5.61		9248301
Initial pH	pH	9.64	9.57		9248301
TCLP - % Solids	%	100	100	0.2	9244883
TCLP Extraction Fluid	N/A	FLUID 2	FLUID 2		9248300
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



O.REG 558 TCLP METALS (SOIL)

Bureau Veritas ID		YMA307	YMA308		
Sampling Date		2024/02/23	2024/02/23		
COC Number		975579-04-01	975579-04-01		
	UNITS	BH23-12 TCLP	BH23-13 TCLP	RDL	QC Batch
Metals					
Leachable Arsenic (As)	mg/L	<0.2	<0.2	0.2	9247777
Leachable Barium (Ba)	mg/L	0.9	0.4	0.2	9247777
Leachable Boron (B)	mg/L	0.2	0.2	0.1	9247777
Leachable Cadmium (Cd)	mg/L	<0.05	<0.05	0.05	9247777
Leachable Chromium (Cr)	mg/L	<0.1	<0.1	0.1	9247777
Leachable Lead (Pb)	mg/L	<0.1	<0.1	0.1	9247777
Leachable Mercury (Hg)	mg/L	<0.001	<0.001	0.001	9247777
Leachable Selenium (Se)	mg/L	<0.1	<0.1	0.1	9247777
Leachable Silver (Ag)	mg/L	<0.01	<0.01	0.01	9247777
Leachable Uranium (U)	mg/L	<0.01	<0.01	0.01	9247777
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



O.REG 558 TCLP PCBS (SOIL)

Bureau Veritas ID		YMA307	YMA307	YMA308		
Sampling Date		2024/02/23	2024/02/23	2024/02/23		
COC Number		975579-04-01	975579-04-01	975579-04-01		
	UNITS	BH23-12 TCLP	BH23-12 TCLP Lab-Dup	BH23-13 TCLP	RDL	QC Batch
PCBs						
Leachable Total PCB	ug/L	<3.0	<3.0	<3.0	3.0	9248809
Surrogate Recovery (%)						
Leachable Decachlorobiphenyl	%	104	95	100		9248809
RDL = Reportable Detection Limit						
QC Batch = Quality Control Batch						
Lab-Dup = Laboratory Initiated Duplicate						



O.REG 558 TCLP VOCs BY HS (SOIL)

Bureau Veritas ID		YMA307	YMA308		
Sampling Date		2024/02/23	2024/02/23		
COC Number		975579-04-01	975579-04-01		
	UNITS	BH23-12 TCLP	BH23-13 TCLP	RDL	QC Batch
Charge/Prep Analysis					
Amount Extracted (Wet Weight) (g)	N/A	25	25	N/A	9242995
Volatile Organics					
Leachable Benzene	mg/L	<0.020	<0.020	0.020	9245152
Leachable Carbon Tetrachloride	mg/L	<0.020	<0.020	0.020	9245152
Leachable Chlorobenzene	mg/L	<0.020	<0.020	0.020	9245152
Leachable Chloroform	mg/L	<0.020	<0.020	0.020	9245152
Leachable 1,2-Dichlorobenzene	mg/L	<0.050	<0.050	0.050	9245152
Leachable 1,4-Dichlorobenzene	mg/L	<0.050	<0.050	0.050	9245152
Leachable 1,2-Dichloroethane	mg/L	<0.050	<0.050	0.050	9245152
Leachable 1,1-Dichloroethylene	mg/L	<0.020	<0.020	0.020	9245152
Leachable Methylene Chloride(Dichloromethane)	mg/L	<0.20	<0.20	0.20	9245152
Leachable Methyl Ethyl Ketone (2-Butanone)	mg/L	<1.0	<1.0	1.0	9245152
Leachable Tetrachloroethylene	mg/L	<0.020	<0.020	0.020	9245152
Leachable Trichloroethylene	mg/L	<0.020	<0.020	0.020	9245152
Leachable Vinyl Chloride	mg/L	<0.020	<0.020	0.020	9245152
Surrogate Recovery (%)					
Leachable 4-Bromofluorobenzene	%	101	103		9245152
Leachable D4-1,2-Dichloroethane	%	100	100		9245152
Leachable D8-Toluene	%	97	98		9245152
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					
N/A = Not Applicable					



BUREAU
VERITAS

Bureau Veritas Job #: C457258

Report Date: 2024/03/01

WSP Canada Inc.

Client Project #: CA-EI-CA0010794.5758 TASK 102

Your P.O. #: EICA0010794.5758

Sampler Initials: EW

MISCELLANEOUS (SOIL)

Bureau Veritas ID		YMA307	YMA308	
Sampling Date		2024/02/23	2024/02/23	
COC Number		975579-04-01	975579-04-01	
	UNITS	BH23-12 TCLP	BH23-13 TCLP	QC Batch
Inorganics				
Ignitability	N/A	NF/NI	NF/NI	9248194
QC Batch = Quality Control Batch				



BUREAU
VERITAS

Bureau Veritas Job #: C457258

Report Date: 2024/03/01

WSP Canada Inc.

Client Project #: CA-EI-CA0010794.5758 TASK 102

Your P.O. #: EICA0010794.5758

Sampler Initials: EW

TEST SUMMARY

Bureau Veritas ID: YMA307
Sample ID: BH23-12 TCLP
Matrix: Soil

Collected: 2024/02/23
Shipped:
Received: 2024/02/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals in TCLP Leachate by ICPMS	ICP1/MS	9247777	2024/02/29	2024/02/29	Arefa Dabhad
Ignitability of a Sample	BAL	9248194	2024/02/29	2024/02/29	Arun Harry
Polychlorinated Biphenyl in Leachate	GC/ECD	9248809	2024/02/29	2024/03/01	Debashis Saha
TCLP - % Solids	BAL	9244883	2024/02/29	2024/02/29	Jian (Ken) Wang
TCLP - Extraction Fluid		9248300	N/A	2024/02/29	Jian (Ken) Wang
TCLP - Initial and final pH	PH	9248301	N/A	2024/02/29	Jian (Ken) Wang
TCLP Zero Headspace Extraction		9242995	2024/02/27	2024/02/28	Abdul Rahman Mohammed
VOCs in ZHE Leachates	GC/MS	9245152	2024/02/28	2024/02/28	Manpreet Sarao

Bureau Veritas ID: YMA307 Dup
Sample ID: BH23-12 TCLP
Matrix: Soil

Collected: 2024/02/23
Shipped:
Received: 2024/02/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Polychlorinated Biphenyl in Leachate	GC/ECD	9248809	2024/02/29	2024/03/01	Debashis Saha

Bureau Veritas ID: YMA308
Sample ID: BH23-13 TCLP
Matrix: Soil

Collected: 2024/02/23
Shipped:
Received: 2024/02/26

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Total Metals in TCLP Leachate by ICPMS	ICP1/MS	9247777	2024/02/29	2024/02/29	Arefa Dabhad
Ignitability of a Sample	BAL	9248194	2024/02/29	2024/02/29	Arun Harry
Polychlorinated Biphenyl in Leachate	GC/ECD	9248809	2024/02/29	2024/03/01	Debashis Saha
TCLP - % Solids	BAL	9244883	2024/02/29	2024/02/29	Jian (Ken) Wang
TCLP - Extraction Fluid		9248300	N/A	2024/02/29	Jian (Ken) Wang
TCLP - Initial and final pH	PH	9248301	N/A	2024/02/29	Jian (Ken) Wang
TCLP Zero Headspace Extraction		9242995	2024/02/27	2024/02/28	Abdul Rahman Mohammed
VOCs in ZHE Leachates	GC/MS	9245152	2024/02/28	2024/02/28	Manpreet Sarao



GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	2.0°C
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Sample YMA307 [BH23-12 TCLP] : NF/NI=Non Flammable and Non Ignitable

Sample YMA308 [BH23-13 TCLP] : NF/NI=Non Flammable and Non Ignitable

Results relate only to the items tested.

BUREAU
VERITAS

Bureau Veritas Job #: C457258

Report Date: 2024/03/01

QUALITY ASSURANCE REPORT

WSP Canada Inc.

Client Project #: CA-EI-CA0010794.5758 TASK 102

Your P.O. #: EICA0010794.5758

Sampler Initials: EW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
9245152	Leachable 4-Bromofluorobenzene	2024/02/28	101	70 - 130	101	70 - 130	101	%				
9245152	Leachable D4-1,2-Dichloroethane	2024/02/28	98	70 - 130	101	70 - 130	99	%				
9245152	Leachable D8-Toluene	2024/02/28	102	70 - 130	98	70 - 130	98	%				
9248809	Leachable Decachlorobiphenyl	2024/03/01	96	30 - 130	101	30 - 130	108	%				
9245152	Leachable 1,1-Dichloroethylene	2024/02/28	89	70 - 130	94	70 - 130	<0.020	mg/L				
9245152	Leachable 1,2-Dichlorobenzene	2024/02/28	96	70 - 130	96	70 - 130	<0.050	mg/L				
9245152	Leachable 1,2-Dichloroethane	2024/02/28	87	70 - 130	90	70 - 130	<0.050	mg/L				
9245152	Leachable 1,4-Dichlorobenzene	2024/02/28	109	70 - 130	111	70 - 130	<0.050	mg/L				
9245152	Leachable Benzene	2024/02/28	85	70 - 130	88	70 - 130	<0.020	mg/L	NC	30		
9245152	Leachable Carbon Tetrachloride	2024/02/28	94	70 - 130	97	70 - 130	<0.020	mg/L				
9245152	Leachable Chlorobenzene	2024/02/28	100	70 - 130	102	70 - 130	<0.020	mg/L				
9245152	Leachable Chloroform	2024/02/28	96	70 - 130	99	70 - 130	<0.020	mg/L				
9245152	Leachable Methyl Ethyl Ketone (2-Butanone)	2024/02/28	96	60 - 140	102	60 - 140	<1.0	mg/L				
9245152	Leachable Methylene Chloride (Dichloromethane)	2024/02/28	88	70 - 130	92	70 - 130	<0.20	mg/L				
9245152	Leachable Tetrachloroethylene	2024/02/28	93	70 - 130	90	70 - 130	<0.020	mg/L				
9245152	Leachable Trichloroethylene	2024/02/28	90	70 - 130	90	70 - 130	<0.020	mg/L				
9245152	Leachable Vinyl Chloride	2024/02/28	79	70 - 130	81	70 - 130	<0.020	mg/L				
9247777	Leachable Arsenic (As)	2024/02/29	100	80 - 120	98	80 - 120	<0.2	mg/L	NC	35	<0.2	mg/L
9247777	Leachable Barium (Ba)	2024/02/29	NC	80 - 120	105	80 - 120	<0.2	mg/L	2.9	35	<0.2	mg/L
9247777	Leachable Boron (B)	2024/02/29	94	80 - 120	95	80 - 120	<0.1	mg/L	3.9	35	<0.1	mg/L
9247777	Leachable Cadmium (Cd)	2024/02/29	102	80 - 120	98	80 - 120	<0.05	mg/L	NC	35	<0.05	mg/L
9247777	Leachable Chromium (Cr)	2024/02/29	96	80 - 120	95	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
9247777	Leachable Lead (Pb)	2024/02/29	94	80 - 120	91	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
9247777	Leachable Mercury (Hg)	2024/02/29	96	80 - 120	95	80 - 120	<0.001	mg/L	NC	35	<0.001	mg/L
9247777	Leachable Selenium (Se)	2024/02/29	101	80 - 120	99	80 - 120	<0.1	mg/L	NC	35	<0.1	mg/L
9247777	Leachable Silver (Ag)	2024/02/29	95	80 - 120	92	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L
9247777	Leachable Uranium (U)	2024/02/29	93	80 - 120	89	80 - 120	<0.01	mg/L	NC	35	<0.01	mg/L



BUREAU
VERITAS

Bureau Veritas Job #: C457258

Report Date: 2024/03/01

QUALITY ASSURANCE REPORT(CONT'D)

WSP Canada Inc.

Client Project #: CA-EI-CA0010794.5758 TASK 102

Your P.O. #: EICA0010794.5758

Sampler Initials: EW

QC Batch	Parameter	Date	Matrix Spike		SPIKED BLANK		Method Blank		RPD		Leachate Blank	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	Value	UNITS
9248809	Leachable Total PCB	2024/03/01	93	30 - 130	102	30 - 130	<3.0	ug/L	NC	40		

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 (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 $\leq 2 \times \text{RDL}$).



BUREAU
VERITAS

Bureau Veritas Job #: C457258

Report Date: 2024/03/01

WSP Canada Inc.

Client Project #: CA-EI-CA0010794.5758 TASK 102

Your P.O. #: EICA0010794.5758

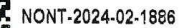
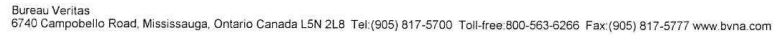
Sampler Initials: EW

VALIDATION SIGNATURE PAGE

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

Anastassia Hamanov, 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.



Page 1 of 1

Bottle Order #:

Project Manager:



C#975579-04-0

Gina Baybayan

	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)
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Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

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 #)

Sample Barcode Label

* 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

Time Sensitive

Temperature (°C) on Base

Custody Seal

--	--

	N
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* 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 ($< 10^{\circ}\text{C}$) FROM TIME OF SAMPLING
UNTIL DELIVERY TO BUREAU VERITAS

White: Bureau Veritas Yellow: Client

Attachment B

Table 1 RPI/ICC SCS Exceedances

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 2011 Table 1-Background	REPORTING LIMIT	BH23-02-SS1 YJL602	BH23-09-SS2 YJL605	BH23-11-SS1 YJL606	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acetone	0.5	0.49	<0.49	<0.49	<0.49	84	85	<0.49
Benzene	0.02	0.006	<0.0060	<0.0060	<0.0060	84	87	<0.0060
Bromodichloromethane	0.05	0.04	<0.040	<0.040	<0.040	97	98	<0.040
Bromoform	0.05	0.04	<0.040	<0.040	<0.040	90	94	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	82	83	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	<0.040	89	90	<0.040
Chlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	98	103	<0.040
Chloroform	0.05	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Dibromochloromethane	0.05	0.04	<0.040	<0.040	<0.040	91	94	<0.040
1,2-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,3-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	97	94	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	0.05	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	84	85	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	84	87	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	95	98	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	92	95	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	<0.040	90	92	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	91	93	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Ethylbenzene	0.05	0.01	<0.010	0.034	<0.010	84	90	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	94	97	<0.040
Methyl Ethyl Ketone	0.5	0.4	<0.40	<0.40	<0.40	90	93	<0.40
Methylene Chloride	0.05	0.049	<0.049	<0.049	<0.049	98	99	<0.049
Methyl Isobutyl Ketone	0.5	0.4	<0.40	<0.40	<0.40	85	89	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	<0.040	92	95	<0.040
Styrene	0.05	0.04	<0.040	<0.040	<0.040	97	105	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	96	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Toluene	0.2	0.02	<0.020	<0.020	<0.020	87	91	<0.020
Tetrachloroethylene	0.05	0.04	<0.040	<0.040	<0.040	95	98	<0.040
1,1,1-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	91	92	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	85	87	<0.040
Trichloroethylene	0.05	0.01	<0.010	<0.010	<0.010	98	101	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	<0.020	90	97	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	<0.020	79	85	<0.020
Total Xylenes	0.05	0.02	<0.020	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	0.05	0.04	<0.040	<0.040	<0.040	63	65	<0.040
Dioxane, 1,4-	0.2	-	-	-	-	-	-	-
Hexane(n)	0.05	0.04	<0.040	<0.040	<0.040	77	84	<0.040
Trichlorofluoromethane	0.25	0.04	<0.040	<0.040	<0.040	88	90	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
2. This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
3. This summary is to be use in conjunction with, not as a replacement of the Laboratory Certificate of Analysis which contains all QA/QC information
4. New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
5. Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT		YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty			C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g						%	%	
Sampling Date	Coarse Grained			10-February-2024	10-February-2024	10-February-2024			
Antimony	1.3	0.2	ug/g	<0.20	5.8	<0.20	75	102	<0.20
Arsenic	18	1	ug/g	1.8	3.7	1	109	103	<1.0
Barium	220	0.5	ug/g	51	150	24	NC	107	<0.50
Beryllium	2.5	0.2	ug/g	0.33	0.49	<0.20	104	98	<0.20
Boron (Hot Water Soluble)	NV	0.05	ug/g	0.19	2	0.15	103	101	<0.050
Cadmium	1.2	0.1	ug/g	<0.10	1.3	<0.10	106	99	<0.10
Chromium	70	1	ug/g	15	58	6.9	NC	97	<1.0
Chromium VI	0.66	0.18	ug/g	<0.18	<0.18	<0.18	78	93	<0.18
Cobalt	21	0.1	ug/g	6.2	11	4.4	106	99	<0.10
Copper	92	0.5	ug/g	13	150	6.3	NC	99	<0.50
Lead	120	1	ug/g	7.8	280	4.9	109	104	<1.0
Mercury	0.27	0.05	ug/g	<0.050	0.081	<0.050	115	110	<0.050
Molybdenum	2	0.5	ug/g	<0.50	2.8	<0.50	103	98	<0.50
Nickel	82	0.5	ug/g	14	28	5.7	NC	103	<0.50
Selenium	1.5	0.5	ug/g	<0.50	<0.50	<0.50	108	105	<0.50
Silver	0.5	0.2	ug/g	<0.20	1.6	<0.20	109	101	<0.20
Thallium	1	0.05	ug/g	0.11	0.11	0.05	111	106	<0.050
Vanadium	86	5	ug/g	21	25	15	NC	99	<5.0
Zinc	290	5	ug/g	37	470	19	NC	107	<5.0
pH (pH Units)	NV		%	8.01	7.93	7.93	-	100	-
Conductivity (ms/cm)	0.57	0.002	mS/cm	2	1.3	1.8	-	102	<0.002
Sodium Adsorption Ratio	2.4		N/A	46	13	29	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	<0.01	104	107	<0.01
Chloride	NV	-	-	-	-	-	-	-	-
Boron (Total)	36	5	ug/g	5.2	14	<5.0	88	100	<5.0
Uranium	2.5	0.05	ug/g	0.49	0.5	0.33	108	101	<0.050

Criteria exceedences will turn BOLD with Yellow Background.
BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

- NV = No value
- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
 - This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
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 - Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Benzene	0.02	-	-	-	-	-	-	-
Toluene	0.2	-	-	-	-	-	-	-
Ethylbenzene	0.05	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	0.05	-	-	-	-	-	-	-
F1 (C6-C10)	25	10	<10	<10	<10	79	88	<10
F1 (C6-C10) - BTEX	25	10	<10	<10	<10	-	-	<10
F2 (C10-C16)	10	10	<10	17	38	103	101	<10
F3 (C16-C34)	240	50	<50	200	120	103	100	<50
F4 (C34-C50)	120	50	<50	110	<50	105	102	<50
Reached Baseline at C50	NV		YES	YES	YES	-	-	-
F4 Gravimetric	120	-	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

- NV = No value
- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
 - This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YJL602	YJL605	YJL606	99995	99998
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%
Sampling Date	Coarse Grained	10-February-2024	10-February-2024	10-February-2024	10-February-2024		
Aldrin	0.05	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	0.05	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.05	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.05	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.05	-	-	-	-	-	-
Total PCB	0.3	0.01	<0.010	0.027	<0.010	85	97
Hexachlorobenzene	0.01	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.01	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
- This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
- This summary is to be use in conjunction with, not as a replacement of the Laboratory Certificate of Analysis which contains all QA/QC information
- New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Method Blank
99999
C445120
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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acenaphthene	0.072	0.06	<0.03	<0.06	<0.06	NC	87	<0.03
Acenaphthylene	0.093	0.1	<0.05	<0.1	<0.1	184	85	<0.05
Anthracene	0.16	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
Benzo(a)anthracene	0.36	0.1	<0.05	<0.1	<0.1	NC	105	<0.05
Benzo(a)pyrene	0.3	0.1	<0.05	<0.1	<0.1	NC	102	<0.05
Benzo(b/j)fluoranthene	0.47	0.2	<0.1	<0.2	<0.2	NC	114	<0.1
Benzo(ghi)perylene	0.68	0.2	<0.1	<0.2	<0.2	NC	125	<0.1
Benzo(k)fluoranthene	0.48	0.06	<0.03	<0.06	<0.06	NC	120	<0.03
Chrysene	2.8	0.1	<0.05	<0.1	<0.1	NC	98	<0.05
Dibenzo(a,h)anthracene	0.1	0.1	<0.05	<0.1	<0.1	166	124	<0.05
Fluoranthene	0.56	0.1	<0.05	<0.1	<0.1	NC	120	<0.05
Fluorene	0.12	0.06	<0.03	<0.06	<0.06	NC	94	<0.03
Indeno(1,2,3-cd)pyrene	0.23	0.2	<0.08	<0.2	<0.2	NC	119	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.03	<0.06	<0.06	NC	89	<0.03
Naphthalene	0.09	0.06	<0.03	<0.06	<0.06	NC	80	<0.03
Phenanthrene	0.69	0.1	<0.05	<0.1	<0.1	NC	92	<0.05
Pyrene	1	0.1	<0.05	<0.1	<0.1	NC	110	<0.05
Biphenyl	0.05	0.1	<0.05	<0.1	<0.1	131	82	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.2	<0.4	<0.4	84	81	<0.2
Bis(2-chloroisopropyl)ether	0.5	0.2	<0.1	<0.2	<0.2	83	85	<0.1
Bis(2-ethylehexyl)phthalate	5	2	<1	<2	<2	79	64	<1
p-Chloroaniline	0.5	0.4	<0.2	<0.4	<0.4	80	49	<0.2
3,3'Dichlorobenzidine	1	1	<0.5	<1	<1	69	16	<0.5
Diethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	104	97	<0.2
Dimethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	88	82	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	140	86	<0.1
1,2,4-Trichlorobenzene	0.05	0.1	<0.05	<0.1	<0.1	72	81	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	65	83	<0.1
2,4- & 2,6-Dinitrotoluene	0.5	0.28	<0.14	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	0.59	0.085	<0.042	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
PHENOLIC COMPOUNDS
MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable pe** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
2-Chlorophenol	0.1	0.2	<0.08	<0.2	<0.2	92	90	<0.08
2,4-Dichlorophenol	0.1	0.2	<0.1	<0.2	<0.2	83	84	<0.1
2,4-Dimethylphenol	0.2	0.4	<0.2	<0.4	<0.4	93	88	<0.2
2,4-Dinitrophenol	2	1	<0.5	<1	<1	NC	26	<0.5
Pentachlorophenol	0.1	0.2	<0.1	<0.2	<0.2	54	64	<0.1
Phenol	0.5	0.2	<0.09	<0.2	<0.2	89	84	<0.09
2,4,5-Trichlorophenol	0.1	0.2	<0.08	<0.2	<0.2	83	79	<0.08
2,4,6-Trichlorophenol	0.1	0.2	<0.1	<0.2	<0.2	81	77	<0.1

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 2011 Table 1-Background	REPORTING LIMIT	BH23-12-SS4 YKB834	BH23-12-SS4 DUP 1 YKB834 DUP 1	BH23-12-SS8 YKB837	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Acetone	0.5	0.49	<0.49	<0.49	<0.49	82	89	<0.49
Benzene	0.02	0.006	0.11	0.11	0.011	84	88	<0.0060
Bromodichloromethane	0.05	0.04	<0.040	<0.040	<0.040	95	102	<0.040
Bromoform	0.05	0.04	<0.040	<0.040	<0.040	88	96	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	77	81	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	<0.040	87	93	<0.040
Chlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	94	100	<0.040
Chloroform	0.05	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Dibromochloromethane	0.05	0.04	<0.040	<0.040	<0.040	88	96	<0.040
1,2-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	87	92	<0.040
1,3-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	95	93	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	105	101	<0.040
1,1-Dichloroethane	0.05	0.04	<0.040	<0.040	<0.040	91	97	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	83	89	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	83	86	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	93	98	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	89	93	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	<0.040	89	95	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	79	80	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	83	85	<0.040
Ethylbenzene	0.05	0.01	0.16	0.15	0.017	81	84	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	90	99	<0.040
Methyl Ethyl Ketone	0.5	0.4	1.1	1	<0.40	89	95	<0.40
Methylene Chloride	0.05	0.049	<0.049	<0.049	<0.049	97	102	<0.049
Methyl Isobutyl Ketone	0.5	0.4	<0.40	<0.40	<0.40	82	87	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	<0.040	87	91	<0.040
Styrene	0.05	0.04	<0.040	<0.040	<0.040	97	98	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	93	102	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	94	103	<0.040
Toluene	0.2	0.02	0.21	0.21	<0.020	84	90	<0.020
Tetrachloroethylene	0.05	0.04	0.043	<0.040	<0.040	90	97	<0.040
1,1,1-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	89	96	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	83	91	<0.040
Trichloroethylene	0.05	0.01	0.01	0.011	<0.010	94	97	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	0.1	0.1	<0.020	87	89	<0.020
o-Xylene	NV	0.02	0.067	0.067	<0.020	79	81	<0.020
Total Xylenes	0.05	0.02	0.17	0.17	<0.020	-	-	<0.020
Dichlorodifluoromethane	0.05	0.04	<0.040	<0.040	<0.040	60	63	<0.040
Dioxane, 1,4-	0.2	-	-	-	-	-	-	-
Hexane(n)	0.05	0.04	<0.040	<0.040	<0.040	77	82	<0.040
Trichlorofluoromethane	0.25	0.04	<0.040	<0.040	<0.040	86	91	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	-	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT		YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty			C448271	C448271	C448271	C448271	C448271
Units	ug/g					%	%	
Sampling Date	Coarse Grained			14-February-2024	14-February-2024			
Antimony	1.3	0.2	ug/g	6	10	97	100	<0.20
Arsenic	18	1	ug/g	6.1	6.8	96	100	<1.0
Barium	220	0.5	ug/g	160	300	NC	99	<0.50
Beryllium	2.5	0.2	ug/g	0.45	0.33	99	100	<0.20
Boron (Hot Water Soluble)	NV	0.05	ug/g	3	5.4	105	107	<0.050
Cadmium	1.2	0.1	ug/g	5.4	4.1	96	98	<0.10
Chromium	70	1	ug/g	40	50	99	97	<1.0
Chromium VI	0.66	0.18	ug/g	<0.18	<0.18	89	90	<0.18
Cobalt	21	0.1	ug/g	8.6	9.7	96	99	<0.10
Copper	92	0.5	ug/g	120	300	96	99	<0.50
Lead	120	1	ug/g	410	780	95	99	<1.0
Mercury	0.27	0.05	ug/g	0.39	0.25	98	101	<0.050
Molybdenum	2	0.5	ug/g	3.6	5.6	96	96	<0.50
Nickel	82	0.5	ug/g	100	110	96	99	<0.50
Selenium	1.5	0.5	ug/g	0.51	<0.50	97	101	<0.50
Silver	0.5	0.2	ug/g	1.7	3.3	96	98	<0.20
Thallium	1	0.05	ug/g	0.093	0.058	100	103	<0.050
Vanadium	86	5	ug/g	29	24	103	100	<5.0
Zinc	290	5	ug/g	670	1000	NC	106	<5.0
pH (pH Units)	NV		%	7.98	8.66	-	100	-
Conductivity (ms/cm)	0.57	0.002	mS/cm	1.9	3.5	-	101	<0.002
Sodium Adsorption Ratio	2.4		N/A	11	21	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	101	103	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	36	5	ug/g	18	39	97	101	<5.0
Uranium	2.5	0.05	ug/g	0.49	0.47	97	100	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS4	BH23-12-SS4 DUP 1	BH23-12-SS8	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YKB834	YKB834 DUP 1	YKB837	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Benzene	0.02	-	-	-	-	-	-	-
Toluene	0.2	-	-	-	-	-	-	-
Ethylbenzene	0.05	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	0.05	-	-	-	-	-	-	-
F1 (C6-C10)	25	10	16	16	47	61	94	<10
F1 (C6-C10) - BTEX	25	10	15	15	47	-	-	<10
F2 (C10-C16)	10	10	20	-	140	92	91	<10
F3 (C16-C34)	240	50	840	-	390	94	94	<50
F4 (C34-C50)	120	50	1200	-	170	92	92	<50
Reached Baseline at C50	NV		NO	-	YES	-	-	-
F4 Gravimetric	120	100	3800	-	-	NC	101	<100

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NV = No value

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2. This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained	14-February-2024	14-February-2024	14-February-2024			
Aldrin	0.05	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	0.05	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.05	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.05	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.05	-	-	-	-	-	-
Total PCB	0.3	0.01	<0.20	0.24	99	100	<0.010
Hexachlorobenzene	0.01	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.01	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Acenaphthene	0.072	0.06	<0.06	<0.06	77	78	<0.03
Acenaphthylene	0.093	0.1	<0.1	<0.1	76	77	<0.05
Anthracene	0.16	0.06	<0.06	0.07	83	84	<0.03
Benzo(a)anthracene	0.36	0.1	<0.1	0.1	98	96	<0.05
Benzo(a)pyrene	0.3	0.1	<0.1	0.1	96	96	<0.05
Benzo(b/j)fluoranthene	0.47	0.2	<0.2	<0.2	90	93	<0.1
Benzo(ghi)perylene	0.68	0.2	<0.2	<0.2	101	105	<0.1
Benzo(k)fluoranthene	0.48	0.06	<0.06	<0.06	92	93	<0.03
Chrysene	2.8	0.1	<0.1	0.1	91	91	<0.05
Dibenzo(a,h)anthracene	0.1	0.1	<0.1	<0.1	102	104	<0.05
Fluoranthene	0.56	0.1	0.1	0.3	109	110	<0.05
Fluorene	0.12	0.06	<0.06	0.08	86	86	<0.03
Indeno(1,2,3-cd)pyrene	0.23	0.2	<0.2	<0.2	96	97	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.06	<0.06	75	82	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.06	<0.06	71	79	<0.03
Naphthalene	0.09	0.06	<0.06	0.07	61	78	<0.03
Phenanthrene	0.69	0.1	<0.1	0.4	85	86	<0.05
Pyrene	1	0.1	0.1	0.3	104	102	<0.05
Biphenyl	0.05	0.1	<0.1	<0.1	71	74	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.4	<0.4	64	75	<0.2
Bis(2-chloroisopropyl)ether	0.5	0.2	<0.2	<0.2	64	78	<0.1
Bis(2-ethylehexyl)phthalate	5	2	<2	<2	81	75	<1
p-Chloroaniline	0.5	0.4	<0.4	<0.4	68	55	<0.2
3,3'Dichlorobenzidine	1	1	<1	<1	91	49	<0.5
Diethyl phthalate	0.5	0.4	<0.4	<0.4	95	98	<0.2
Dimethyl phthalate	0.5	0.4	<0.4	<0.4	83	84	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.2	<0.2	90	92	<0.1
1,2,4-Trichlorobenzene	0.05	0.1	<0.1	<0.1	54	77	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.2	<0.2	80	82	<0.1
2,4- & 2,6-Dinitrotoluene	0.5	0.28	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	0.59	0.085	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc. **Bureau Veritas Guideline Comparison Tables**

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

PHENOLIC COMPOUNDS

MATRIX: SOIL **Select Guideline from list above for comparison.**

Note: Window zoom values other than 75% may cause unstable pe ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
2-Chlorophenol	0.1	0.2	<0.2	<0.2	79	86	<0.08
2,4-Dichlorophenol	0.1	0.2	<0.2	<0.2	82	88	<0.1
2,4-Dimethylphenol	0.2	0.4	<0.4	<0.4	89	86	<0.2
2,4-Dinitrophenol	2	1	<1	<1	79	57	<0.5
Pentachlorophenol	0.1	0.2	<0.2	<0.2	67	68	<0.1
Phenol	0.5	0.2	<0.2	<0.2	79	81	<0.09
2,4,5-Trichlorophenol	0.1	0.2	<0.2	<0.2	84	82	<0.08
2,4,6-Trichlorophenol	0.1	0.2	<0.2	<0.2	81	80	<0.1

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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 2011 Table 1-Background	REPORTING LIMIT	BH23-13-SS3 YLA384	BH23-13-SS6 YLA387	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Acetone	0.5	0.49	<0.49	<0.49	94	98	<0.49
Benzene	0.02	0.006	<0.0060	<0.0060	93	95	<0.0060
Bromodichloromethane	0.05	0.04	<0.040	<0.040	102	102	<0.040
Bromoform	0.05	0.04	<0.040	<0.040	89	86	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	88	87	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	97	99	<0.040
Chlorobenzene	0.05	0.04	<0.040	<0.040	102	100	<0.040
Chloroform	0.05	0.04	<0.040	<0.040	102	102	<0.040
Dibromochloromethane	0.05	0.04	<0.040	<0.040	95	92	<0.040
1,2-Dichlorobenzene	0.05	0.04	<0.040	<0.040	94	94	<0.040
1,3-Dichlorobenzene	0.05	0.04	<0.040	<0.040	97	98	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	0.05	0.04	<0.040	<0.040	104	105	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	90	91	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	103	106	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	98	97	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	101	100	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	101	102	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	91	94	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	92	93	<0.040
Ethylbenzene	0.05	0.01	<0.010	<0.010	92	94	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	95	93	<0.040
Methyl Ethyl Ketone	0.5	0.4	<0.40	<0.40	98	102	<0.40
Methylene Chloride	0.05	0.049	<0.049	<0.049	99	99	<0.049
Methyl Isobutyl Ketone	0.5	0.4	<0.40	<0.40	97	101	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	100	101	<0.040
Styrene	0.05	0.04	<0.040	<0.040	103	104	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
Toluene	0.2	0.02	<0.020	<0.020	91	91	<0.020
Tetrachloroethylene	0.05	0.04	<0.040	<0.040	95	95	<0.040
1,1,1-Trichloroethane	0.05	0.04	<0.040	<0.040	99	102	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	93	92	<0.040
Trichloroethylene	0.05	0.01	<0.010	<0.010	98	99	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	103	103	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	98	101	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	85	87	<0.020
Total Xylenes	0.05	0.02	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	0.05	0.04	<0.040	<0.040	77	78	<0.040
Dioxane, 1,4-	0.2	-	-	-	-	-	-
Hexane(n)	0.05	0.04	<0.040	<0.040	100	102	<0.040
Trichlorofluoromethane	0.25	0.04	<0.040	<0.040	102	104	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	<0.050	-	-	-

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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT		YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty			C452791	C452791	C452791	C452791	C452791
Units	ug/g					%	%	
Sampling Date	Coarse Grained			20-February-2024	20-February-2024			
Antimony	1.3	0.2	ug/g	<0.20	<0.20	98	98	<0.20
Arsenic	18	1	ug/g	1.4	3.4	100	97	<1.0
Barium	220	0.5	ug/g	22	120	NC	96	<0.50
Beryllium	2.5	0.2	ug/g	<0.20	0.49	100	95	<0.20
Boron (Hot Water Soluble)	NV	0.05	ug/g	0.088	0.31	102	99	<0.050
Cadmium	1.2	0.1	ug/g	<0.10	<0.10	98	96	<0.10
Chromium	70	1	ug/g	11	23	97	95	<1.0
Chromium VI	0.66	0.18	ug/g	<0.18	0.38	88	93	<0.18
Cobalt	21	0.1	ug/g	2.9	8.3	96	96	<0.10
Copper	92	0.5	ug/g	6.8	17	99	97	<0.50
Lead	120	1	ug/g	5.1	5.7	NC	97	<1.0
Mercury	0.27	0.05	ug/g	<0.050	<0.050	96	98	<0.050
Molybdenum	2	0.5	ug/g	<0.50	<0.50	100	92	<0.50
Nickel	82	0.5	ug/g	6	18	96	97	<0.50
Selenium	1.5	0.5	ug/g	<0.50	<0.50	98	100	<0.50
Silver	0.5	0.2	ug/g	<0.20	<0.20	97	95	<0.20
Thallium	1	0.05	ug/g	0.058	0.13	96	99	<0.050
Vanadium	86	5	ug/g	16	33	101	96	<5.0
Zinc	290	5	ug/g	22	42	NC	98	<5.0
pH (pH Units)	NV		%	8.1	8.04	-	100	-
Conductivity (ms/cm)	0.57	0.002	mS/cm	2.1	1.2	-	103	<0.002
Sodium Adsorption Ratio	2.4		N/A	20	12	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	98	95	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	36	5	ug/g	<5.0	9.5	95	94	<5.0
Uranium	2.5	0.05	ug/g	0.33	0.71	97	95	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performan ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Benzene	0.02	-	-	-	-	-	-
Toluene	0.2	-	-	-	-	-	-
Ethylbenzene	0.05	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-
Total Xylenes	0.05	-	-	-	-	-	-
F1 (C6-C10)	25	10	<10	<10	95	93	<10
F1 (C6-C10) - BTEX	25	10	<10	<10	-	-	<10
F2 (C10-C16)	10	10	75	63	101	90	<10
F3 (C16-C34)	240	50	160	96	95	87	<50
F4 (C34-C50)	120	50	<50	<50	94	86	<50
Reached Baseline at C50	NV		YES	YES	-	-	-
F4 Gravimetric	120	-	-	-	-	-	-

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NOTES:

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

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Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained	20-February-2024	20-February-2024	20-February-2024			
Aldrin	0.05	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	0.05	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.05	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.05	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.05	-	-	-	-	-	-
Total PCB	0.3	0.01	<0.010	<0.010	89	106	<0.010
Hexachlorobenzene	0.01	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.01	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
Acenaphthene	0.072	0.03	<0.03	<0.03	<0.03	69	72	<0.03
Acenaphthylene	0.093	0.05	<0.05	<0.05	<0.05	67	70	<0.05
Anthracene	0.16	0.03	<0.03	<0.03	<0.03	82	81	<0.03
Benzo(a)anthracene	0.36	0.05	<0.05	<0.05	<0.05	99	96	<0.05
Benzo(a)pyrene	0.3	0.05	<0.05	<0.05	<0.05	97	109	<0.05
Benzo(b)fluoranthene	0.47	0.1	<0.1	<0.1	<0.1	88	110	<0.1
Benzo(ghi)perylene	0.68	0.1	<0.1	<0.1	<0.1	100	116	<0.1
Benzo(k)fluoranthene	0.48	0.03	<0.03	<0.03	<0.03	94	115	<0.03
Chrysene	2.8	0.05	<0.05	<0.05	<0.05	90	91	<0.05
Dibenzo(a,h)anthracene	0.1	0.05	<0.05	<0.05	<0.05	101	118	<0.05
Fluoranthene	0.56	0.05	<0.05	<0.05	<0.05	110	109	<0.05
Fluorene	0.12	0.03	<0.03	<0.03	<0.03	78	83	<0.03
Indeno(1,2,3-cd)pyrene	0.23	0.08	<0.08	<0.08	<0.08	97	113	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.03	<0.03	<0.03	<0.03	71	71	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.03	<0.03	<0.03	<0.03	68	69	<0.03
Naphthalene	0.09	0.03	<0.03	<0.03	<0.03	61	64	<0.03
Phenanthrene	0.69	0.05	<0.05	<0.05	<0.05	84	84	<0.05
Pyrene	1	0.05	<0.05	<0.05	<0.05	100	98	<0.05
Biphenyl	0.05	0.05	<0.05	<0.05	<0.05	66	67	<0.05
Bis(2-chloroethyl)ether	0.5	0.2	<0.2	<0.2	<0.2	66	61	<0.2
Bis(2-chloroisopropyl)ether	0.5	0.1	<0.1	<0.1	<0.1	68	64	<0.1
Bis(2-ethylehexyl)phthalate	5	1	<1	<1	<1	80	64	<1
p-Chloroaniline	0.5	0.2	<0.2	<0.2	<0.2	53	51	<0.2
3,3'Dichlorobenzidine	1	0.5	<0.5	<0.5	<0.5	81	11	<0.5
Diethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	88	99	<0.2
Dimethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	72	84	<0.2
2,4-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	75	84	<0.1
1,2,4-Trichlorobenzene	0.05	0.05	<0.05	<0.05	<0.05	62	70	<0.05
2,6-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	67	82	<0.1
2,4- & 2,6-Dinitrotoluene	0.5	0.14	<0.14	-	<0.14	-	-	-
Methylnaphthalene, 2-(1-)	0.59	0.042	<0.042	-	<0.042	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthelene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

PHENOLIC COMPOUNDS

MATRIX: SOIL Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable per ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 1-Background	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/ Inst/Ind/ Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
2-Chlorophenol	0.1	0.08	<0.08	<0.08	<0.08	68	72	<0.08
2,4-Dichlorophenol	0.1	0.1	<0.1	<0.1	<0.1	68	65	<0.1
2,4-Dimethylphenol	0.2	0.2	<0.2	<0.2	<0.2	60	65	<0.2
2,4-Dinitrophenol	2	0.5	<0.5	<0.5	<0.5	50	45	<0.5
Pentachlorophenol	0.1	0.1	<0.1	<0.1	<0.1	45	70	<0.1
Phenol	0.5	0.09	<0.09	<0.09	<0.09	65	59	<0.09
2,4,5-Trichlorophenol	0.1	0.08	<0.08	<0.08	<0.08	79	74	<0.08
2,4,6-Trichlorophenol	0.1	0.1	<0.1	<0.1	<0.1	69	71	<0.1

Criteria exceedences will turn BOLD with Yellow Background.
BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

- NOTES:
- NV = No value
- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Attachment C

Table 3 ICC SCS Exceedances

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 2011 Table 3-Non-Potable GW	REPORTING LIMIT	BH23-02-SS1 YJL602	BH23-09-SS2 YJL605	BH23-11-SS1 YJL606	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acetone	16	0.49	<0.49	<0.49	<0.49	84	85	<0.49
Benzene	0.32	0.006	<0.0060	<0.0060	<0.0060	84	87	<0.0060
Bromodichloromethane	18	0.04	<0.040	<0.040	<0.040	97	98	<0.040
Bromoform	0.61	0.04	<0.040	<0.040	<0.040	90	94	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	82	83	<0.040
Carbon Tetrachloride	0.21	0.04	<0.040	<0.040	<0.040	89	90	<0.040
Chlorobenzene	2.4	0.04	<0.040	<0.040	<0.040	98	103	<0.040
Chloroform	0.47	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Dibromochloromethane	13	0.04	<0.040	<0.040	<0.040	91	94	<0.040
1,2-Dichlorobenzene	6.8	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,3-Dichlorobenzene	9.6	0.04	<0.040	<0.040	<0.040	97	94	<0.040
1,4-Dichlorobenzene	0.2	0.04	<0.040	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	17	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	84	85	<0.049
1,1-Dichloroethylene	0.064	0.04	<0.040	<0.040	<0.040	84	87	<0.040
Cis-1,2-Dichloroethylene	55	0.04	<0.040	<0.040	<0.040	95	98	<0.040
Trans-1,2-Dichloroethylene	1.3	0.04	<0.040	<0.040	<0.040	92	95	<0.040
1,2-Dichloropropane	0.16	0.04	<0.040	<0.040	<0.040	90	92	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	91	93	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Ethylbenzene	9.5	0.01	<0.010	0.034	<0.010	84	90	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	94	97	<0.040
Methyl Ethyl Ketone	70	0.4	<0.40	<0.40	<0.40	90	93	<0.40
Methylene Chloride	1.6	0.049	<0.049	<0.049	<0.049	98	99	<0.049
Methyl Isobutyl Ketone	31	0.4	<0.40	<0.40	<0.40	85	89	<0.40
Methyl-t-Butyl Ether	11	0.04	<0.040	<0.040	<0.040	92	95	<0.040
Styrene	34	0.04	<0.040	<0.040	<0.040	97	105	<0.040
1,1,1,2-Tetrachloroethane	0.087	0.04	<0.040	<0.040	<0.040	96	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Toluene	68	0.02	<0.020	<0.020	<0.020	87	91	<0.020
Tetrachloroethylene	4.5	0.04	<0.040	<0.040	<0.040	95	98	<0.040
1,1,1-Trichloroethane	6.1	0.04	<0.040	<0.040	<0.040	91	92	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	85	87	<0.040
Trichloroethylene	0.91	0.01	<0.010	<0.010	<0.010	98	101	<0.010
Vinyl Chloride	0.032	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	<0.020	90	97	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	<0.020	79	85	<0.020
Total Xylenes	26	0.02	<0.020	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	16	0.04	<0.040	<0.040	<0.040	63	65	<0.040
Dioxane, 1,4-	1.8	-	-	-	-	-	-	-
Hexane(n)	46	0.04	<0.040	<0.040	<0.040	77	84	<0.040
Trichlorofluoromethane	4	0.04	<0.040	<0.040	<0.040	88	90	<0.040
1,3-Dichloropropene (cis + trans)	0.18	0.05	<0.050	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT		YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty			C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g						%	%	
Sampling Date	Coarse Grained			10-February-2024	10-February-2024	10-February-2024			
Antimony	40	0.2	ug/g	<0.20	5.8	<0.20	75	102	<0.20
Arsenic	18	1	ug/g	1.8	3.7	1	109	103	<1.0
Barium	670	0.5	ug/g	51	150	24	NC	107	<0.50
Beryllium	8	0.2	ug/g	0.33	0.49	<0.20	104	98	<0.20
Boron (Hot Water Soluble)	2	0.05	ug/g	0.19	2	0.15	103	101	<0.050
Cadmium	1.9	0.1	ug/g	<0.10	1.3	<0.10	106	99	<0.10
Chromium	160	1	ug/g	15	58	6.9	NC	97	<1.0
Chromium VI	8	0.18	ug/g	<0.18	<0.18	<0.18	78	93	<0.18
Cobalt	80	0.1	ug/g	6.2	11	4.4	106	99	<0.10
Copper	230	0.5	ug/g	13	150	6.3	NC	99	<0.50
Lead	120	1	ug/g	7.8	280	4.9	109	104	<1.0
Mercury	3.9	0.05	ug/g	<0.050	0.081	<0.050	115	110	<0.050
Molybdenum	40	0.5	ug/g	<0.50	2.8	<0.50	103	98	<0.50
Nickel	270	0.5	ug/g	14	28	5.7	NC	103	<0.50
Selenium	5.5	0.5	ug/g	<0.50	<0.50	<0.50	108	105	<0.50
Silver	40	0.2	ug/g	<0.20	1.6	<0.20	109	101	<0.20
Thallium	3.3	0.05	ug/g	0.11	0.11	0.05	111	106	<0.050
Vanadium	86	5	ug/g	21	25	15	NC	99	<5.0
Zinc	340	5	ug/g	37	470	19	NC	107	<5.0
pH (pH Units)	NV		%	8.01	7.93	7.93	-	100	-
Conductivity (ms/cm)	1.4	0.002	mS/cm	2	1.3	1.8	-	102	<0.002
Sodium Adsorption Ratio	12		N/A	46	13	29	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	<0.01	104	107	<0.01
Chloride	NV	-	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	5.2	14	<5.0	88	100	<5.0
Uranium	33	0.05	ug/g	0.49	0.5	0.33	108	101	<0.050

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NOTES:

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Benzene	0.32	-	-	-	-	-	-	-
Toluene	68	-	-	-	-	-	-	-
Ethylbenzene	9.5	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	26	-	-	-	-	-	-	-
F1 (C6-C10)	55	10	<10	<10	<10	79	88	<10
F1 (C6-C10) - BTEX	55	10	<10	<10	<10	-	-	<10
F2 (C10-C16)	230	10	<10	17	38	103	101	<10
F3 (C16-C34)	1700	50	<50	200	120	103	100	<50
F4 (C34-C50)	3300	50	<50	110	<50	105	102	<50
Reached Baseline at C50	NV		YES	YES	YES	-	-	-
F4 Gravimetric	3300	-	-	-	-	-	-	-

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NOTES:

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 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YJL602	YJL605	YJL606	99995	99998
Bureau Veritas Job #	Ind/Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024		
Aldrin	0.088	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	4.6	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.52	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.088	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.3	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.19	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.056	-	-	-	-	-	-
Methoxychlor	1.6	-	-	-	-	-	-
Total PCB	1.1	0.01	<0.010	0.027	<0.010	85	97
Hexachlorobenzene	0.66	-	-	-	-	-	-
Hexachlorobutadiene	0.031	-	-	-	-	-	-
Hexachloroethane	0.21	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Method Blank
99999
C445120
ug/g
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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acenaphthene	96	0.06	<0.03	<0.06	<0.06	NC	87	<0.03
Acenaphthylene	0.15	0.1	<0.05	<0.1	<0.1	184	85	<0.05
Anthracene	0.67	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
Benzo(a)anthracene	0.96	0.1	<0.05	<0.1	<0.1	NC	105	<0.05
Benzo(a)pyrene	0.3	0.1	<0.05	<0.1	<0.1	NC	102	<0.05
Benzo(b/j)fluoranthene	0.96	0.2	<0.1	<0.2	<0.2	NC	114	<0.1
Benzo(ghi)perylene	9.6	0.2	<0.1	<0.2	<0.2	NC	125	<0.1
Benzo(k)fluoranthene	0.96	0.06	<0.03	<0.06	<0.06	NC	120	<0.03
Chrysene	9.6	0.1	<0.05	<0.1	<0.1	NC	98	<0.05
Dibenzo(a,h)anthracene	0.1	0.1	<0.05	<0.1	<0.1	166	124	<0.05
Fluoranthene	9.6	0.1	<0.05	<0.1	<0.1	NC	120	<0.05
Fluorene	62	0.06	<0.03	<0.06	<0.06	NC	94	<0.03
Indeno(1,2,3-cd)pyrene	0.76	0.2	<0.08	<0.2	<0.2	NC	119	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	76	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	76	0.06	<0.03	<0.06	<0.06	NC	89	<0.03
Naphthalene	9.6	0.06	<0.03	<0.06	<0.06	NC	80	<0.03
Phenanthrene	12	0.1	<0.05	<0.1	<0.1	NC	92	<0.05
Pyrene	96	0.1	<0.05	<0.1	<0.1	NC	110	<0.05
Biphenyl	52	0.1	<0.05	<0.1	<0.1	131	82	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.2	<0.4	<0.4	84	81	<0.2
Bis(2-chloroisopropyl)ether	11	0.2	<0.1	<0.2	<0.2	83	85	<0.1
Bis(2-ethylehexyl)phthalate	28	2	<1	<2	<2	79	64	<1
p-Chloroaniline	0.5	0.4	<0.2	<0.4	<0.4	80	49	<0.2
3,3'Dichlorobenzidine	1	1	<0.5	<1	<1	69	16	<0.5
Diethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	104	97	<0.2
Dimethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	88	82	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	140	86	<0.1
1,2,4-Trichlorobenzene	3.2	0.1	<0.05	<0.1	<0.1	72	81	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	65	83	<0.1
2,4- & 2,6-Dinitrotoluene	1.2	0.28	<0.14	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	76	0.085	<0.042	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

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- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc. **Bureau Veritas Guideline Comparison Tables**
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
PHENOLIC COMPOUNDS
MATRIX: SOIL **Select Guideline from list above for comparison.**

Note: Window zoom values other than 75% may cause unstable pe** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
2-Chlorophenol	3.1	0.2	<0.08	<0.2	<0.2	92	90	<0.08
2,4-Dichlorophenol	3.4	0.2	<0.1	<0.2	<0.2	83	84	<0.1
2,4-Dimethylphenol	390	0.4	<0.2	<0.4	<0.4	93	88	<0.2
2,4-Dinitrophenol	59	1	<0.5	<1	<1	NC	26	<0.5
Pentachlorophenol	2.9	0.2	<0.1	<0.2	<0.2	54	64	<0.1
Phenol	9.4	0.2	<0.09	<0.2	<0.2	89	84	<0.09
2,4,5-Trichlorophenol	10	0.2	<0.08	<0.2	<0.2	83	79	<0.08
2,4,6-Trichlorophenol	3.8	0.2	<0.1	<0.2	<0.2	81	77	<0.1

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NOTES:

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 2011 Table 3-Non-Potable GW	REPORTING LIMIT	BH23-12-SS4 YKB834	BH23-12-SS4 DUP 1 YKB834 DUP 1	BH23-12-SS8 YKB837	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Acetone	16	0.49	<0.49	<0.49	<0.49	82	89	<0.49
Benzene	0.32	0.006	0.11	0.11	0.011	84	88	<0.0060
Bromodichloromethane	18	0.04	<0.040	<0.040	<0.040	95	102	<0.040
Bromoform	0.61	0.04	<0.040	<0.040	<0.040	88	96	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	77	81	<0.040
Carbon Tetrachloride	0.21	0.04	<0.040	<0.040	<0.040	87	93	<0.040
Chlorobenzene	2.4	0.04	<0.040	<0.040	<0.040	94	100	<0.040
Chloroform	0.47	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Dibromochloromethane	13	0.04	<0.040	<0.040	<0.040	88	96	<0.040
1,2-Dichlorobenzene	6.8	0.04	<0.040	<0.040	<0.040	87	92	<0.040
1,3-Dichlorobenzene	9.6	0.04	<0.040	<0.040	<0.040	95	93	<0.040
1,4-Dichlorobenzene	0.2	0.04	<0.040	<0.040	<0.040	105	101	<0.040
1,1-Dichloroethane	17	0.04	<0.040	<0.040	<0.040	91	97	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	83	89	<0.049
1,1-Dichloroethylene	0.064	0.04	<0.040	<0.040	<0.040	83	86	<0.040
Cis-1,2-Dichloroethylene	55	0.04	<0.040	<0.040	<0.040	93	98	<0.040
Trans-1,2-Dichloroethylene	1.3	0.04	<0.040	<0.040	<0.040	89	93	<0.040
1,2-Dichloropropane	0.16	0.04	<0.040	<0.040	<0.040	89	95	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	79	80	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	83	85	<0.040
Ethylbenzene	9.5	0.01	0.16	0.15	0.017	81	84	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	90	99	<0.040
Methyl Ethyl Ketone	70	0.4	1.1	1	<0.40	89	95	<0.40
Methylene Chloride	1.6	0.049	<0.049	<0.049	<0.049	97	102	<0.049
Methyl Isobutyl Ketone	31	0.4	<0.40	<0.40	<0.40	82	87	<0.40
Methyl-t-Butyl Ether	11	0.04	<0.040	<0.040	<0.040	87	91	<0.040
Styrene	34	0.04	<0.040	<0.040	<0.040	97	98	<0.040
1,1,1,2-Tetrachloroethane	0.087	0.04	<0.040	<0.040	<0.040	93	102	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	94	103	<0.040
Toluene	68	0.02	0.21	0.21	<0.020	84	90	<0.020
Tetrachloroethylene	4.5	0.04	0.043	<0.040	<0.040	90	97	<0.040
1,1,1-Trichloroethane	6.1	0.04	<0.040	<0.040	<0.040	89	96	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	83	91	<0.040
Trichloroethylene	0.91	0.01	0.01	0.011	<0.010	94	97	<0.010
Vinyl Chloride	0.032	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	0.1	0.1	<0.020	87	89	<0.020
o-Xylene	NV	0.02	0.067	0.067	<0.020	79	81	<0.020
Total Xylenes	26	0.02	0.17	0.17	<0.020	-	-	<0.020
Dichlorodifluoromethane	16	0.04	<0.040	<0.040	<0.040	60	63	<0.040
Dioxane, 1,4-	1.8	-	-	-	-	-	-	-
Hexane(n)	46	0.04	<0.040	<0.040	<0.040	77	82	<0.040
Trichlorofluoromethane	4	0.04	<0.040	<0.040	<0.040	86	91	<0.040
1,3-Dichloropropene (cis + trans)	0.18	0.05	<0.050	-	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271
INORGANIC PARAMETERS
MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT		YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty			C448271	C448271	C448271	C448271	C448271
Units	ug/g					%	%	
Sampling Date	Coarse Grained			14-February-2024	14-February-2024			
Antimony	40	0.2	ug/g	6	10	97	100	<0.20
Arsenic	18	1	ug/g	6.1	6.8	96	100	<1.0
Barium	670	0.5	ug/g	160	300	NC	99	<0.50
Beryllium	8	0.2	ug/g	0.45	0.33	99	100	<0.20
Boron (Hot Water Soluble)	2	0.05	ug/g	3	5.4	105	107	<0.050
Cadmium	1.9	0.1	ug/g	5.4	4.1	96	98	<0.10
Chromium	160	1	ug/g	40	50	99	97	<1.0
Chromium VI	8	0.18	ug/g	<0.18	<0.18	89	90	<0.18
Cobalt	80	0.1	ug/g	8.6	9.7	96	99	<0.10
Copper	230	0.5	ug/g	120	300	96	99	<0.50
Lead	120	1	ug/g	410	780	95	99	<1.0
Mercury	3.9	0.05	ug/g	0.39	0.25	98	101	<0.050
Molybdenum	40	0.5	ug/g	3.6	5.6	96	96	<0.50
Nickel	270	0.5	ug/g	100	110	96	99	<0.50
Selenium	5.5	0.5	ug/g	0.51	<0.50	97	101	<0.50
Silver	40	0.2	ug/g	1.7	3.3	96	98	<0.20
Thallium	3.3	0.05	ug/g	0.093	0.058	100	103	<0.050
Vanadium	86	5	ug/g	29	24	103	100	<5.0
Zinc	340	5	ug/g	670	1000	NC	106	<5.0
pH (pH Units)	NV		%	7.98	8.66	-	100	-
Conductivity (ms/cm)	1.4	0.002	mS/cm	1.9	3.5	-	101	<0.002
Sodium Adsorption Ratio	12		N/A	11	21	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	101	103	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	18	39	97	101	<5.0
Uranium	33	0.05	ug/g	0.49	0.47	97	100	<0.050

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NOTES:

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS4	BH23-12-SS4 DUP 1	BH23-12-SS8	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YKB834	YKB834 DUP 1	YKB837	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Benzene	0.32	-	-	-	-	-	-	-
Toluene	68	-	-	-	-	-	-	-
Ethylbenzene	9.5	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	26	-	-	-	-	-	-	-
F1 (C6-C10)	55	10	16	16	47	61	94	<10
F1 (C6-C10) - BTEX	55	10	15	15	47	-	-	<10
F2 (C10-C16)	230	10	20	-	140	92	91	<10
F3 (C16-C34)	1700	50	840	-	390	94	94	<50
F4 (C34-C50)	3300	50	1200	-	170	92	92	<50
Reached Baseline at C50	NV		NO	-	YES	-	-	-
F4 Gravimetric	3300	100	3800	-	-	NC	101	<100

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NOTES:

- NV = No value
- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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 - New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
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 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Aldrin	0.088	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	4.6	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.52	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.088	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.3	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.19	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.056	-	-	-	-	-	-
Methoxychlor	1.6	-	-	-	-	-	-
Total PCB	1.1	0.01	<0.20	0.24	99	100	<0.010
Hexachlorobenzene	0.66	-	-	-	-	-	-
Hexachlorobutadiene	0.031	-	-	-	-	-	-
Hexachloroethane	0.21	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

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1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Acenaphthene	96	0.06	<0.06	<0.06	77	78	<0.03
Acenaphthylene	0.15	0.1	<0.1	<0.1	76	77	<0.05
Anthracene	0.67	0.06	<0.06	0.07	83	84	<0.03
Benzo(a)anthracene	0.96	0.1	<0.1	0.1	98	96	<0.05
Benzo(a)pyrene	0.3	0.1	<0.1	0.1	96	96	<0.05
Benzo(b/j)fluoranthene	0.96	0.2	<0.2	<0.2	90	93	<0.1
Benzo(ghi)perylene	9.6	0.2	<0.2	<0.2	101	105	<0.1
Benzo(k)fluoranthene	0.96	0.06	<0.06	<0.06	92	93	<0.03
Chrysene	9.6	0.1	<0.1	0.1	91	91	<0.05
Dibenzo(a,h)anthracene	0.1	0.1	<0.1	<0.1	102	104	<0.05
Fluoranthene	9.6	0.1	0.1	0.3	109	110	<0.05
Fluorene	62	0.06	<0.06	0.08	86	86	<0.03
Indeno(1,2,3-cd)pyrene	0.76	0.2	<0.2	<0.2	96	97	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	76	0.06	<0.06	<0.06	75	82	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	76	0.06	<0.06	<0.06	71	79	<0.03
Naphthalene	9.6	0.06	<0.06	0.07	61	78	<0.03
Phenanthrene	12	0.1	<0.1	0.4	85	86	<0.05
Pyrene	96	0.1	0.1	0.3	104	102	<0.05
Biphenyl	52	0.1	<0.1	<0.1	71	74	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.4	<0.4	64	75	<0.2
Bis(2-chloroisopropyl)ether	11	0.2	<0.2	<0.2	64	78	<0.1
Bis(2-ethylehexyl)phthalate	28	2	<2	<2	81	75	<1
p-Chloroaniline	0.5	0.4	<0.4	<0.4	68	55	<0.2
3,3'Dichlorobenzidine	1	1	<1	<1	91	49	<0.5
Diethyl phthalate	0.5	0.4	<0.4	<0.4	95	98	<0.2
Dimethyl phthalate	0.5	0.4	<0.4	<0.4	83	84	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.2	<0.2	90	92	<0.1
1,2,4-Trichlorobenzene	3.2	0.1	<0.1	<0.1	54	77	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.2	<0.2	80	82	<0.1
2,4- & 2,6-Dinitrotoluene	1.2	0.28	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	76	0.085	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthelene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc. **Bureau Veritas Guideline Comparison Tables**
PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

PHENOLIC COMPOUNDS

MATRIX: SOIL **Select Guideline from list above for comparison.**

Note: Window zoom values other than 75% may cause unstable pe ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
2-Chlorophenol	3.1	0.2	<0.2	<0.2	79	86	<0.08
2,4-Dichlorophenol	3.4	0.2	<0.2	<0.2	82	88	<0.1
2,4-Dimethylphenol	390	0.4	<0.4	<0.4	89	86	<0.2
2,4-Dinitrophenol	59	1	<1	<1	79	57	<0.5
Pentachlorophenol	2.9	0.2	<0.2	<0.2	67	68	<0.1
Phenol	9.4	0.2	<0.2	<0.2	79	81	<0.09
2,4,5-Trichlorophenol	10	0.2	<0.2	<0.2	84	82	<0.08
2,4,6-Trichlorophenol	3.8	0.2	<0.2	<0.2	81	80	<0.1

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 2011 Table 3-Non-Potable GW	REPORTING LIMIT	BH23-13-SS3 YLA384	BH23-13-SS6 YLA387	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Acetone	16	0.49	<0.49	<0.49	94	98	<0.49
Benzene	0.32	0.006	<0.0060	<0.0060	93	95	<0.0060
Bromodichloromethane	18	0.04	<0.040	<0.040	102	102	<0.040
Bromoform	0.61	0.04	<0.040	<0.040	89	86	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	88	87	<0.040
Carbon Tetrachloride	0.21	0.04	<0.040	<0.040	97	99	<0.040
Chlorobenzene	2.4	0.04	<0.040	<0.040	102	100	<0.040
Chloroform	0.47	0.04	<0.040	<0.040	102	102	<0.040
Dibromochloromethane	13	0.04	<0.040	<0.040	95	92	<0.040
1,2-Dichlorobenzene	6.8	0.04	<0.040	<0.040	94	94	<0.040
1,3-Dichlorobenzene	9.6	0.04	<0.040	<0.040	97	98	<0.040
1,4-Dichlorobenzene	0.2	0.04	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	17	0.04	<0.040	<0.040	104	105	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	90	91	<0.049
1,1-Dichloroethylene	0.064	0.04	<0.040	<0.040	103	106	<0.040
Cis-1,2-Dichloroethylene	55	0.04	<0.040	<0.040	98	97	<0.040
Trans-1,2-Dichloroethylene	1.3	0.04	<0.040	<0.040	101	100	<0.040
1,2-Dichloropropane	0.16	0.04	<0.040	<0.040	101	102	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	91	94	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	92	93	<0.040
Ethylbenzene	9.5	0.01	<0.010	<0.010	92	94	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	95	93	<0.040
Methyl Ethyl Ketone	70	0.4	<0.40	<0.40	98	102	<0.40
Methylene Chloride	1.6	0.049	<0.049	<0.049	99	99	<0.049
Methyl Isobutyl Ketone	31	0.4	<0.40	<0.40	97	101	<0.40
Methyl-t-Butyl Ether	11	0.04	<0.040	<0.040	100	101	<0.040
Styrene	34	0.04	<0.040	<0.040	103	104	<0.040
1,1,1,2-Tetrachloroethane	0.087	0.04	<0.040	<0.040	99	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
Toluene	68	0.02	<0.020	<0.020	91	91	<0.020
Tetrachloroethylene	4.5	0.04	<0.040	<0.040	95	95	<0.040
1,1,1-Trichloroethane	6.1	0.04	<0.040	<0.040	99	102	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	93	92	<0.040
Trichloroethylene	0.91	0.01	<0.010	<0.010	98	99	<0.010
Vinyl Chloride	0.032	0.019	<0.019	<0.019	103	103	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	98	101	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	85	87	<0.020
Total Xylenes	26	0.02	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	16	0.04	<0.040	<0.040	77	78	<0.040
Dioxane, 1,4-	1.8	-	-	-	-	-	-
Hexane(n)	46	0.04	<0.040	<0.040	100	102	<0.040
Trichlorofluoromethane	4	0.04	<0.040	<0.040	102	104	<0.040
1,3-Dichloropropene (cis + trans)	0.18	0.05	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

INORGANIC PARAMETERS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT		YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty			C452791	C452791	C452791	C452791	C452791
Units	ug/g					%	%	
Sampling Date	Coarse Grained			20-February-2024	20-February-2024			
Antimony	40	0.2	ug/g	<0.20	<0.20	98	98	<0.20
Arsenic	18	1	ug/g	1.4	3.4	100	97	<1.0
Barium	670	0.5	ug/g	22	120	NC	96	<0.50
Beryllium	8	0.2	ug/g	<0.20	0.49	100	95	<0.20
Boron (Hot Water Soluble)	2	0.05	ug/g	0.088	0.31	102	99	<0.050
Cadmium	1.9	0.1	ug/g	<0.10	<0.10	98	96	<0.10
Chromium	160	1	ug/g	11	23	97	95	<1.0
Chromium VI	8	0.18	ug/g	<0.18	0.38	88	93	<0.18
Cobalt	80	0.1	ug/g	2.9	8.3	96	96	<0.10
Copper	230	0.5	ug/g	6.8	17	99	97	<0.50
Lead	120	1	ug/g	5.1	5.7	NC	97	<1.0
Mercury	3.9	0.05	ug/g	<0.050	<0.050	96	98	<0.050
Molybdenum	40	0.5	ug/g	<0.50	<0.50	100	92	<0.50
Nickel	270	0.5	ug/g	6	18	96	97	<0.50
Selenium	5.5	0.5	ug/g	<0.50	<0.50	98	100	<0.50
Silver	40	0.2	ug/g	<0.20	<0.20	97	95	<0.20
Thallium	3.3	0.05	ug/g	0.058	0.13	96	99	<0.050
Vanadium	86	5	ug/g	16	33	101	96	<5.0
Zinc	340	5	ug/g	22	42	NC	98	<5.0
pH (pH Units)	NV		%	8.1	8.04	-	100	-
Conductivity (ms/cm)	1.4	0.002	mS/cm	2.1	1.2	-	103	<0.002
Sodium Adsorption Ratio	12		N/A	20	12	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	98	95	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	<5.0	9.5	95	94	<5.0
Uranium	33	0.05	ug/g	0.33	0.71	97	95	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performan ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Benzene	0.32	-	-	-	-	-	-
Toluene	68	-	-	-	-	-	-
Ethylbenzene	9.5	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-
Total Xylenes	26	-	-	-	-	-	-
F1 (C6-C10)	55	10	<10	<10	95	93	<10
F1 (C6-C10) - BTEX	55	10	<10	<10	-	-	<10
F2 (C10-C16)	230	10	75	63	101	90	<10
F3 (C16-C34)	1700	50	160	96	95	87	<50
F4 (C34-C50)	3300	50	<50	<50	94	86	<50
Reached Baseline at C50	NV		YES	YES	-	-	-
F4 Gravimetric	3300	-	-	-	-	-	-

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

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Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Aldrin	0.088	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	4.6	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.52	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.088	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.3	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.19	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.056	-	-	-	-	-	-
Methoxychlor	1.6	-	-	-	-	-	-
Total PCB	1.1	0.01	<0.010	<0.010	89	106	<0.010
Hexachlorobenzene	0.66	-	-	-	-	-	-
Hexachlorobutadiene	0.031	-	-	-	-	-	-
Hexachloroethane	0.21	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
Acenaphthene	96	0.03	<0.03	<0.03	<0.03	69	72	<0.03
Acenaphthylene	0.15	0.05	<0.05	<0.05	<0.05	67	70	<0.05
Anthracene	0.67	0.03	<0.03	<0.03	<0.03	82	81	<0.03
Benzo(a)anthracene	0.96	0.05	<0.05	<0.05	<0.05	99	96	<0.05
Benzo(a)pyrene	0.3	0.05	<0.05	<0.05	<0.05	97	109	<0.05
Benzo(b/j)fluoranthene	0.96	0.1	<0.1	<0.1	<0.1	88	110	<0.1
Benzo(ghi)perylene	9.6	0.1	<0.1	<0.1	<0.1	100	116	<0.1
Benzo(k)fluoranthene	0.96	0.03	<0.03	<0.03	<0.03	94	115	<0.03
Chrysene	9.6	0.05	<0.05	<0.05	<0.05	90	91	<0.05
Dibenzo(a,h)anthracene	0.1	0.05	<0.05	<0.05	<0.05	101	118	<0.05
Fluoranthene	9.6	0.05	<0.05	<0.05	<0.05	110	109	<0.05
Fluorene	62	0.03	<0.03	<0.03	<0.03	78	83	<0.03
Indeno(1,2,3-cd)pyrene	0.76	0.08	<0.08	<0.08	<0.08	97	113	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	76	0.03	<0.03	<0.03	<0.03	71	71	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	76	0.03	<0.03	<0.03	<0.03	68	69	<0.03
Naphthalene	9.6	0.03	<0.03	<0.03	<0.03	61	64	<0.03
Phenanthrene	12	0.05	<0.05	<0.05	<0.05	84	84	<0.05
Pyrene	96	0.05	<0.05	<0.05	<0.05	100	98	<0.05
Biphenyl	52	0.05	<0.05	<0.05	<0.05	66	67	<0.05
Bis(2-chloroethyl)ether	0.5	0.2	<0.2	<0.2	<0.2	66	61	<0.2
Bis(2-chloroisopropyl)ether	11	0.1	<0.1	<0.1	<0.1	68	64	<0.1
Bis(2-ethylehexyl)phthalate	28	1	<1	<1	<1	80	64	<1
p-Chloroaniline	0.5	0.2	<0.2	<0.2	<0.2	53	51	<0.2
3,3'Dichlorobenzidine	1	0.5	<0.5	<0.5	<0.5	81	11	<0.5
Diethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	88	99	<0.2
Dimethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	72	84	<0.2
2,4-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	75	84	<0.1
1,2,4-Trichlorobenzene	3.2	0.05	<0.05	<0.05	<0.05	62	70	<0.05
2,6-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	67	82	<0.1
2,4- & 2,6-Dinitrotoluene	1.2	0.14	<0.14	-	<0.14	-	-	-
Methylnaphthalene, 2-(1-)	76	0.042	<0.042	-	<0.042	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc. **Bureau Veritas Guideline Comparison Tables**
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

PHENOLIC COMPOUNDS

MATRIX: SOIL **Select Guideline from list above for comparison.**

Note: Window zoom values other than 75% may cause unstable per** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	2011 Table 3-Non-Potable GW	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Comm'ty		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
2-Chlorophenol	3.1	0.08	<0.08	<0.08	<0.08	68	72	<0.08
2,4-Dichlorophenol	3.4	0.1	<0.1	<0.1	<0.1	68	65	<0.1
2,4-Dimethylphenol	390	0.2	<0.2	<0.2	<0.2	60	65	<0.2
2,4-Dinitrophenol	59	0.5	<0.5	<0.5	<0.5	50	45	<0.5
Pentachlorophenol	2.9	0.1	<0.1	<0.1	<0.1	45	70	<0.1
Phenol	9.4	0.09	<0.09	<0.09	<0.09	65	59	<0.09
2,4,5-Trichlorophenol	10	0.08	<0.08	<0.08	<0.08	79	74	<0.08
2,4,6-Trichlorophenol	3.8	0.1	<0.1	<0.1	<0.1	69	71	<0.1

Criteria exceedences will turn BOLD with Yellow Background.
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- NOTES:
- NV = No value
1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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Attachment D

Table 2.1 RPI ESQS Exceedances

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 406/19 Table 2.1: Potable	REPORTING LIMIT	BH23-02-SS1 YJL602	BH23-09-SS2 YJL605	BH23-11-SS1 YJL606	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Res/Park/Inst		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acetone	0.5	0.49	<0.49	<0.49	<0.49	84	85	<0.49
Benzene	0.02	0.006	<0.0060	<0.0060	<0.0060	84	87	<0.0060
Bromodichloromethane	0.05	0.04	<0.040	<0.040	<0.040	97	98	<0.040
Bromoform	0.05	0.04	<0.040	<0.040	<0.040	90	94	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	82	83	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	<0.040	89	90	<0.040
Chlorobenzene	0.083	0.04	<0.040	<0.040	<0.040	98	103	<0.040
Chloroform	0.05	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Dibromochloromethane	0.05	0.04	<0.040	<0.040	<0.040	91	94	<0.040
1,2-Dichlorobenzene	3.4	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,3-Dichlorobenzene	0.26	0.04	<0.040	<0.040	<0.040	97	94	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	0.05	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	84	85	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	84	87	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	95	98	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	92	95	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	<0.040	90	92	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	91	93	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Ethylbenzene	0.05	0.01	<0.010	0.034	<0.010	84	90	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	94	97	<0.040
Methyl Ethyl Ketone	0.5	0.4	<0.40	<0.40	<0.40	90	93	<0.40
Methylene Chloride	0.05	0.049	<0.049	<0.049	<0.049	98	99	<0.049
Methyl Isobutyl Ketone	0.5	0.4	<0.40	<0.40	<0.40	85	89	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	<0.040	92	95	<0.040
Styrene	0.05	0.04	<0.040	<0.040	<0.040	97	105	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	96	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Toluene	0.2	0.02	<0.020	<0.020	<0.020	87	91	<0.020
Tetrachloroethylene	0.05	0.04	<0.040	<0.040	<0.040	95	98	<0.040
1,1,1-Trichloroethane	0.11	0.04	<0.040	<0.040	<0.040	91	92	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	85	87	<0.040
Trichloroethylene	0.05	0.01	<0.010	<0.010	<0.010	98	101	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	<0.020	90	97	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	<0.020	79	85	<0.020
Total Xylenes	0.091	0.02	<0.020	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	1.5	0.04	<0.040	<0.040	<0.040	63	65	<0.040
Dioxane, 1,4-	0.2	-	-	-	-	-	-	-
Hexane(n)	2.5	0.04	<0.040	<0.040	<0.040	77	84	<0.040
Trichlorofluoromethane	0.25	0.04	<0.040	<0.040	<0.040	88	90	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT		YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst			C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g						%	%	
Sampling Date	Coarse Grained			10-February-2024	10-February-2024	10-February-2024			
Antimony	7.5	0.2	ug/g	<0.20	5.8	<0.20	75	102	<0.20
Arsenic	18	1	ug/g	1.8	3.7	1	109	103	<1.0
Barium	390	0.5	ug/g	51	150	24	NC	107	<0.50
Beryllium	4	0.2	ug/g	0.33	0.49	<0.20	104	98	<0.20
Boron (Hot Water Soluble)	1.5	0.05	ug/g	0.19	2	0.15	103	101	<0.050
Cadmium	1.2	0.1	ug/g	<0.10	1.3	<0.10	106	99	<0.10
Chromium	160	1	ug/g	15	58	6.9	NC	97	<1.0
Chromium VI	8	0.18	ug/g	<0.18	<0.18	<0.18	78	93	<0.18
Cobalt	22	0.1	ug/g	6.2	11	4.4	106	99	<0.10
Copper	140	0.5	ug/g	13	150	6.3	NC	99	<0.50
Lead	120	1	ug/g	7.8	280	4.9	109	104	<1.0
Mercury	0.27	0.05	ug/g	<0.050	0.081	<0.050	115	110	<0.050
Molybdenum	6.9	0.5	ug/g	<0.50	2.8	<0.50	103	98	<0.50
Nickel	100	0.5	ug/g	14	28	5.7	NC	103	<0.50
Selenium	2.4	0.5	ug/g	<0.50	<0.50	<0.50	108	105	<0.50
Silver	20	0.2	ug/g	<0.20	1.6	<0.20	109	101	<0.20
Thallium	1	0.05	ug/g	0.11	0.11	0.05	111	106	<0.050
Vanadium	86	5	ug/g	21	25	15	NC	99	<5.0
Zinc	340	5	ug/g	37	470	19	NC	107	<5.0
pH (pH Units)	NV		%	8.01	7.93	7.93	-	100	-
Conductivity (ms/cm)	0.7	0.002	mS/cm	2	1.3	1.8	-	102	<0.002
Sodium Adsorption Ratio	5		N/A	46	13	29	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	<0.01	104	107	<0.01
Chloride	NV	-	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	5.2	14	<5.0	88	100	<5.0
Uranium	23	0.05	ug/g	0.49	0.5	0.33	108	101	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Benzene	0.02	-	-	-	-	-	-	-
Toluene	0.2	-	-	-	-	-	-	-
Ethylbenzene	0.05	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	0.091	-	-	-	-	-	-	-
F1 (C6-C10)	25	10	<10	<10	<10	79	88	<10
F1 (C6-C10) - BTEX	NV	10	<10	<10	<10	-	-	<10
F2 (C10-C16)	10	10	<10	17	38	103	101	<10
F3 (C16-C34)	240	50	<50	200	120	103	100	<50
F4 (C34-C50)	2800	50	<50	110	<50	105	102	<50
Reached Baseline at C50	NV		YES	YES	YES	-	-	-
F4 Gravimetric	2800	-	-	-	-	-	-	-

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NOTES:

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998
Bureau Veritas Job #	Res/Park/Inst		C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024		
Aldrin	0.05	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	3.3	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.26	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.072	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.13	-	-	-	-	-	-
Total PCB	0.35	0.01	<0.010	0.027	<0.010	85	97
Hexachlorobenzene	0.034	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.01	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
2. This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
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4. New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
5. Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Method Blank
99999
C445120
ug/g
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<0.010
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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acenaphthene	2.5	0.06	<0.03	<0.06	<0.06	NC	87	<0.03
Acenaphthylene	0.093	0.1	<0.05	<0.1	<0.1	184	85	<0.05
Anthracene	0.16	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
Benzo(a)anthracene	0.5	0.1	<0.05	<0.1	<0.1	NC	105	<0.05
Benzo(a)pyrene	0.31	0.1	<0.05	<0.1	<0.1	NC	102	<0.05
Benzo(b/j)fluoranthene	3.2	0.2	<0.1	<0.2	<0.2	NC	114	<0.1
Benzo(ghi)perylene	6.6	0.2	<0.1	<0.2	<0.2	NC	125	<0.1
Benzo(k)fluoranthene	3.1	0.06	<0.03	<0.06	<0.06	NC	120	<0.03
Chrysene	7	0.1	<0.05	<0.1	<0.1	NC	98	<0.05
Dibenzo(a,h)anthracene	0.57	0.1	<0.05	<0.1	<0.1	166	124	<0.05
Fluoranthene	0.69	0.1	<0.05	<0.1	<0.1	NC	120	<0.05
Fluorene	6.8	0.06	<0.03	<0.06	<0.06	NC	94	<0.03
Indeno(1,2,3-cd)pyrene	0.38	0.2	<0.08	<0.2	<0.2	NC	119	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.03	<0.06	<0.06	NC	89	<0.03
Naphthalene	0.2	0.06	<0.03	<0.06	<0.06	NC	80	<0.03
Phenanthrene	6.2	0.1	<0.05	<0.1	<0.1	NC	92	<0.05
Pyrene	28	0.1	<0.05	<0.1	<0.1	NC	110	<0.05
Biphenyl	0.05	0.1	<0.05	<0.1	<0.1	131	82	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.2	<0.4	<0.4	84	81	<0.2
Bis(2-chloroisopropyl)ether	0.5	0.2	<0.1	<0.2	<0.2	83	85	<0.1
Bis(2-ethylehexyl)phthalate	5	2	<1	<2	<2	79	64	<1
p-Chloroaniline	0.5	0.4	<0.2	<0.4	<0.4	80	49	<0.2
3,3'Dichlorobenzidine	1	1	<0.5	<1	<1	69	16	<0.5
Diethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	104	97	<0.2
Dimethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	88	82	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	140	86	<0.1
1,2,4-Trichlorobenzene	0.17	0.1	<0.05	<0.1	<0.1	72	81	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	65	83	<0.1
2,4- & 2,6-Dinitrotoluene	0.5	0.28	<0.14	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	0.59	0.085	<0.042	<0.085	<0.085	-	-	-

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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
PHENOLIC COMPOUNDS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable pe** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
2-Chlorophenol	0.1	0.2	<0.08	<0.2	<0.2	92	90	<0.08
2,4-Dichlorophenol	0.1	0.2	<0.1	<0.2	<0.2	83	84	<0.1
2,4-Dimethylphenol	0.43	0.4	<0.2	<0.4	<0.4	93	88	<0.2
2,4-Dinitrophenol	2	1	<0.5	<1	<1	NC	26	<0.5
Pentachlorophenol	0.1	0.2	<0.1	<0.2	<0.2	54	64	<0.1
Phenol	2.4	0.2	<0.09	<0.2	<0.2	89	84	<0.09
2,4,5-Trichlorophenol	0.11	0.2	<0.08	<0.2	<0.2	83	79	<0.08
2,4,6-Trichlorophenol	4.4	0.2	<0.1	<0.2	<0.2	81	77	<0.1

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NOTES:

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 406/19 Table 2.1: Potable	REPORTING LIMIT	BH23-12-SS4 YKB834	BH23-12-SS4 DUP 1 YKB834 DUP 1	BH23-12-SS8 YKB837	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Res/Park/Inst		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Acetone	0.5	0.49	<0.49	<0.49	<0.49	82	89	<0.49
Benzene	0.02	0.006	0.11	0.11	0.011	84	88	<0.0060
Bromodichloromethane	0.05	0.04	<0.040	<0.040	<0.040	95	102	<0.040
Bromoform	0.05	0.04	<0.040	<0.040	<0.040	88	96	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	77	81	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	<0.040	87	93	<0.040
Chlorobenzene	0.083	0.04	<0.040	<0.040	<0.040	94	100	<0.040
Chloroform	0.05	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Dibromochloromethane	0.05	0.04	<0.040	<0.040	<0.040	88	96	<0.040
1,2-Dichlorobenzene	3.4	0.04	<0.040	<0.040	<0.040	87	92	<0.040
1,3-Dichlorobenzene	0.26	0.04	<0.040	<0.040	<0.040	95	93	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	105	101	<0.040
1,1-Dichloroethane	0.05	0.04	<0.040	<0.040	<0.040	91	97	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	83	89	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	83	86	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	93	98	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	89	93	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	<0.040	89	95	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	79	80	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	83	85	<0.040
Ethylbenzene	0.05	0.01	0.16	0.15	0.017	81	84	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	90	99	<0.040
Methyl Ethyl Ketone	0.5	0.4	1.1	1	<0.40	89	95	<0.40
Methylene Chloride	0.05	0.049	<0.049	<0.049	<0.049	97	102	<0.049
Methyl Isobutyl Ketone	0.5	0.4	<0.40	<0.40	<0.40	82	87	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	<0.040	87	91	<0.040
Styrene	0.05	0.04	<0.040	<0.040	<0.040	97	98	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	93	102	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	94	103	<0.040
Toluene	0.2	0.02	0.21	0.21	<0.020	84	90	<0.020
Tetrachloroethylene	0.05	0.04	0.043	<0.040	<0.040	90	97	<0.040
1,1,1-Trichloroethane	0.11	0.04	<0.040	<0.040	<0.040	89	96	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	83	91	<0.040
Trichloroethylene	0.05	0.01	0.01	0.011	<0.010	94	97	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	0.1	0.1	<0.020	87	89	<0.020
o-Xylene	NV	0.02	0.067	0.067	<0.020	79	81	<0.020
Total Xylenes	0.091	0.02	0.17	0.17	<0.020	-	-	<0.020
Dichlorodifluoromethane	1.5	0.04	<0.040	<0.040	<0.040	60	63	<0.040
Dioxane, 1,4-	0.2	-	-	-	-	-	-	-
Hexane(n)	2.5	0.04	<0.040	<0.040	<0.040	77	82	<0.040
Trichlorofluoromethane	0.25	0.04	<0.040	<0.040	<0.040	86	91	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	-	<0.050	-	-	-

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NOTES:

NV = No value

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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT		YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst			C448271	C448271	C448271	C448271	C448271
Units	ug/g					%	%	
Sampling Date	Coarse Grained			14-February-2024	14-February-2024			
Antimony	7.5	0.2	ug/g	6	10	97	100	<0.20
Arsenic	18	1	ug/g	6.1	6.8	96	100	<1.0
Barium	390	0.5	ug/g	160	300	NC	99	<0.50
Beryllium	4	0.2	ug/g	0.45	0.33	99	100	<0.20
Boron (Hot Water Soluble)	1.5	0.05	ug/g	3	5.4	105	107	<0.050
Cadmium	1.2	0.1	ug/g	5.4	4.1	96	98	<0.10
Chromium	160	1	ug/g	40	50	99	97	<1.0
Chromium VI	8	0.18	ug/g	<0.18	<0.18	89	90	<0.18
Cobalt	22	0.1	ug/g	8.6	9.7	96	99	<0.10
Copper	140	0.5	ug/g	120	300	96	99	<0.50
Lead	120	1	ug/g	410	780	95	99	<1.0
Mercury	0.27	0.05	ug/g	0.39	0.25	98	101	<0.050
Molybdenum	6.9	0.5	ug/g	3.6	5.6	96	96	<0.50
Nickel	100	0.5	ug/g	100	110	96	99	<0.50
Selenium	2.4	0.5	ug/g	0.51	<0.50	97	101	<0.50
Silver	20	0.2	ug/g	1.7	3.3	96	98	<0.20
Thallium	1	0.05	ug/g	0.093	0.058	100	103	<0.050
Vanadium	86	5	ug/g	29	24	103	100	<5.0
Zinc	340	5	ug/g	670	1000	NC	106	<5.0
pH (pH Units)	NV		%	7.98	8.66	-	100	-
Conductivity (ms/cm)	0.7	0.002	mS/cm	1.9	3.5	-	101	<0.002
Sodium Adsorption Ratio	5		N/A	11	21	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	101	103	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	18	39	97	101	<5.0
Uranium	23	0.05	ug/g	0.49	0.47	97	100	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS4	BH23-12-SS4 DUP 1	BH23-12-SS8	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YKB834	YKB834 DUP 1	YKB837	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Benzene	0.02	-	-	-	-	-	-	-
Toluene	0.2	-	-	-	-	-	-	-
Ethylbenzene	0.05	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	0.091	-	-	-	-	-	-	-
F1 (C6-C10)	25	10	16	16	47	61	94	<10
F1 (C6-C10) - BTEX	NV	10	15	15	47	-	-	<10
F2 (C10-C16)	10	10	20	-	140	92	91	<10
F3 (C16-C34)	240	50	840	-	390	94	94	<50
F4 (C34-C50)	2800	50	1200	-	170	92	92	<50
Reached Baseline at C50	NV		NO	-	YES	-	-	-
F4 Gravimetric	2800	100	3800	-	-	NC	101	<100

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- New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Aldrin	0.05	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	3.3	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.26	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.072	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.13	-	-	-	-	-	-
Total PCB	0.35	0.01	<0.20	0.24	99	100	<0.010
Hexachlorobenzene	0.034	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.01	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Acenaphthene	2.5	0.06	<0.06	<0.06	77	78	<0.03
Acenaphthylene	0.093	0.1	<0.1	<0.1	76	77	<0.05
Anthracene	0.16	0.06	<0.06	0.07	83	84	<0.03
Benzo(a)anthracene	0.5	0.1	<0.1	0.1	98	96	<0.05
Benzo(a)pyrene	0.31	0.1	<0.1	0.1	96	96	<0.05
Benzo(b/j)fluoranthene	3.2	0.2	<0.2	<0.2	90	93	<0.1
Benzo(ghi)perylene	6.6	0.2	<0.2	<0.2	101	105	<0.1
Benzo(k)fluoranthene	3.1	0.06	<0.06	<0.06	92	93	<0.03
Chrysene	7	0.1	<0.1	0.1	91	91	<0.05
Dibenzo(a,h)anthracene	0.57	0.1	<0.1	<0.1	102	104	<0.05
Fluoranthene	0.69	0.1	0.1	0.3	109	110	<0.05
Fluorene	6.8	0.06	<0.06	0.08	86	86	<0.03
Indeno(1,2,3-cd)pyrene	0.38	0.2	<0.2	<0.2	96	97	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.06	<0.06	75	82	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.06	<0.06	<0.06	71	79	<0.03
Naphthalene	0.2	0.06	<0.06	0.07	61	78	<0.03
Phenanthrene	6.2	0.1	<0.1	0.4	85	86	<0.05
Pyrene	28	0.1	0.1	0.3	104	102	<0.05
Biphenyl	0.05	0.1	<0.1	<0.1	71	74	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.4	<0.4	64	75	<0.2
Bis(2-chloroisopropyl)ether	0.5	0.2	<0.2	<0.2	64	78	<0.1
Bis(2-ethylehexyl)phthalate	5	2	<2	<2	81	75	<1
p-Chloroaniline	0.5	0.4	<0.4	<0.4	68	55	<0.2
3,3'Dichlorobenzidine	1	1	<1	<1	91	49	<0.5
Diethyl phthalate	0.5	0.4	<0.4	<0.4	95	98	<0.2
Dimethyl phthalate	0.5	0.4	<0.4	<0.4	83	84	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.2	<0.2	90	92	<0.1
1,2,4-Trichlorobenzene	0.17	0.1	<0.1	<0.1	54	77	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.2	<0.2	80	82	<0.1
2,4- & 2,6-Dinitrotoluene	0.5	0.28	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	0.59	0.085	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

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- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthelene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc. **Bureau Veritas Guideline Comparison Tables**

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

PHENOLIC COMPOUNDS

MATRIX: SOIL **Select Guideline from list above for comparison.**

Note: Window zoom values other than 75% may cause unstable pe ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
2-Chlorophenol	0.1	0.2	<0.2	<0.2	79	86	<0.08
2,4-Dichlorophenol	0.1	0.2	<0.2	<0.2	82	88	<0.1
2,4-Dimethylphenol	0.43	0.4	<0.4	<0.4	89	86	<0.2
2,4-Dinitrophenol	2	1	<1	<1	79	57	<0.5
Pentachlorophenol	0.1	0.2	<0.2	<0.2	67	68	<0.1
Phenol	2.4	0.2	<0.2	<0.2	79	81	<0.09
2,4,5-Trichlorophenol	0.11	0.2	<0.2	<0.2	84	82	<0.08
2,4,6-Trichlorophenol	4.4	0.2	<0.2	<0.2	81	80	<0.1

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NOTES:

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- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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 - Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 406/19 Table 2.1: Potable	REPORTING LIMIT	BH23-13-SS3 YLA384	BH23-13-SS6 YLA387	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Res/Park/Inst		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Acetone	0.5	0.49	<0.49	<0.49	94	98	<0.49
Benzene	0.02	0.006	<0.0060	<0.0060	93	95	<0.0060
Bromodichloromethane	0.05	0.04	<0.040	<0.040	102	102	<0.040
Bromoform	0.05	0.04	<0.040	<0.040	89	86	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	88	87	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	97	99	<0.040
Chlorobenzene	0.083	0.04	<0.040	<0.040	102	100	<0.040
Chloroform	0.05	0.04	<0.040	<0.040	102	102	<0.040
Dibromochloromethane	0.05	0.04	<0.040	<0.040	95	92	<0.040
1,2-Dichlorobenzene	3.4	0.04	<0.040	<0.040	94	94	<0.040
1,3-Dichlorobenzene	0.26	0.04	<0.040	<0.040	97	98	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	0.05	0.04	<0.040	<0.040	104	105	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	90	91	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	103	106	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	98	97	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	101	100	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	101	102	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	91	94	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	92	93	<0.040
Ethylbenzene	0.05	0.01	<0.010	<0.010	92	94	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	95	93	<0.040
Methyl Ethyl Ketone	0.5	0.4	<0.40	<0.40	98	102	<0.40
Methylene Chloride	0.05	0.049	<0.049	<0.049	99	99	<0.049
Methyl Isobutyl Ketone	0.5	0.4	<0.40	<0.40	97	101	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	100	101	<0.040
Styrene	0.05	0.04	<0.040	<0.040	103	104	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
Toluene	0.2	0.02	<0.020	<0.020	91	91	<0.020
Tetrachloroethylene	0.05	0.04	<0.040	<0.040	95	95	<0.040
1,1,1-Trichloroethane	0.11	0.04	<0.040	<0.040	99	102	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	93	92	<0.040
Trichloroethylene	0.05	0.01	<0.010	<0.010	98	99	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	103	103	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	98	101	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	85	87	<0.020
Total Xylenes	0.091	0.02	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	1.5	0.04	<0.040	<0.040	77	78	<0.040
Dioxane, 1,4-	0.2	-	-	-	-	-	-
Hexane(n)	2.5	0.04	<0.040	<0.040	100	102	<0.040
Trichlorofluoromethane	0.25	0.04	<0.040	<0.040	102	104	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT		YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst			C452791	C452791	C452791	C452791	C452791
Units	ug/g					%	%	
Sampling Date	Coarse Grained			20-February-2024	20-February-2024			
Antimony	7.5	0.2	ug/g	<0.20	<0.20	98	98	<0.20
Arsenic	18	1	ug/g	1.4	3.4	100	97	<1.0
Barium	390	0.5	ug/g	22	120	NC	96	<0.50
Beryllium	4	0.2	ug/g	<0.20	0.49	100	95	<0.20
Boron (Hot Water Soluble)	1.5	0.05	ug/g	0.088	0.31	102	99	<0.050
Cadmium	1.2	0.1	ug/g	<0.10	<0.10	98	96	<0.10
Chromium	160	1	ug/g	11	23	97	95	<1.0
Chromium VI	8	0.18	ug/g	<0.18	0.38	88	93	<0.18
Cobalt	22	0.1	ug/g	2.9	8.3	96	96	<0.10
Copper	140	0.5	ug/g	6.8	17	99	97	<0.50
Lead	120	1	ug/g	5.1	5.7	NC	97	<1.0
Mercury	0.27	0.05	ug/g	<0.050	<0.050	96	98	<0.050
Molybdenum	6.9	0.5	ug/g	<0.50	<0.50	100	92	<0.50
Nickel	100	0.5	ug/g	6	18	96	97	<0.50
Selenium	2.4	0.5	ug/g	<0.50	<0.50	98	100	<0.50
Silver	20	0.2	ug/g	<0.20	<0.20	97	95	<0.20
Thallium	1	0.05	ug/g	0.058	0.13	96	99	<0.050
Vanadium	86	5	ug/g	16	33	101	96	<5.0
Zinc	340	5	ug/g	22	42	NC	98	<5.0
pH (pH Units)	NV		%	8.1	8.04	-	100	-
Conductivity (ms/cm)	0.7	0.002	mS/cm	2.1	1.2	-	103	<0.002
Sodium Adsorption Ratio	5		N/A	20	12	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	98	95	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	<5.0	9.5	95	94	<5.0
Uranium	23	0.05	ug/g	0.33	0.71	97	95	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performan ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Benzene	0.02	-	-	-	-	-	-
Toluene	0.2	-	-	-	-	-	-
Ethylbenzene	0.05	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-
Total Xylenes	0.091	-	-	-	-	-	-
F1 (C6-C10)	25	10	<10	<10	95	93	<10
F1 (C6-C10) - BTEX	NV	10	<10	<10	-	-	<10
F2 (C10-C16)	10	10	75	63	101	90	<10
F3 (C16-C34)	240	50	160	96	95	87	<50
F4 (C34-C50)	2800	50	<50	<50	94	86	<50
Reached Baseline at C50	NV		YES	YES	-	-	-
F4 Gravimetric	2800	-	-	-	-	-	-

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

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Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Aldrin	0.05	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	3.3	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.26	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.05	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.072	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.13	-	-	-	-	-	-
Total PCB	0.35	0.01	<0.010	<0.010	89	106	<0.010
Hexachlorobenzene	0.034	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.01	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
Acenaphthene	2.5	0.03	<0.03	<0.03	<0.03	69	72	<0.03
Acenaphthylene	0.093	0.05	<0.05	<0.05	<0.05	67	70	<0.05
Anthracene	0.16	0.03	<0.03	<0.03	<0.03	82	81	<0.03
Benzo(a)anthracene	0.5	0.05	<0.05	<0.05	<0.05	99	96	<0.05
Benzo(a)pyrene	0.31	0.05	<0.05	<0.05	<0.05	97	109	<0.05
Benzo(b/j)fluoranthene	3.2	0.1	<0.1	<0.1	<0.1	88	110	<0.1
Benzo(ghi)perylene	6.6	0.1	<0.1	<0.1	<0.1	100	116	<0.1
Benzo(k)fluoranthene	3.1	0.03	<0.03	<0.03	<0.03	94	115	<0.03
Chrysene	7	0.05	<0.05	<0.05	<0.05	90	91	<0.05
Dibenzo(a,h)anthracene	0.57	0.05	<0.05	<0.05	<0.05	101	118	<0.05
Fluoranthene	0.69	0.05	<0.05	<0.05	<0.05	110	109	<0.05
Fluorene	6.8	0.03	<0.03	<0.03	<0.03	78	83	<0.03
Indeno(1,2,3-cd)pyrene	0.38	0.08	<0.08	<0.08	<0.08	97	113	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.03	<0.03	<0.03	<0.03	71	71	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	0.59	0.03	<0.03	<0.03	<0.03	68	69	<0.03
Naphthalene	0.2	0.03	<0.03	<0.03	<0.03	61	64	<0.03
Phenanthrene	6.2	0.05	<0.05	<0.05	<0.05	84	84	<0.05
Pyrene	28	0.05	<0.05	<0.05	<0.05	100	98	<0.05
Biphenyl	0.05	0.05	<0.05	<0.05	<0.05	66	67	<0.05
Bis(2-chloroethyl)ether	0.5	0.2	<0.2	<0.2	<0.2	66	61	<0.2
Bis(2-chloroisopropyl)ether	0.5	0.1	<0.1	<0.1	<0.1	68	64	<0.1
Bis(2-ethylehexyl)phthalate	5	1	<1	<1	<1	80	64	<1
p-Chloroaniline	0.5	0.2	<0.2	<0.2	<0.2	53	51	<0.2
3,3'Dichlorobenzidine	1	0.5	<0.5	<0.5	<0.5	81	11	<0.5
Diethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	88	99	<0.2
Dimethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	72	84	<0.2
2,4-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	75	84	<0.1
1,2,4-Trichlorobenzene	0.17	0.05	<0.05	<0.05	<0.05	62	70	<0.05
2,6-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	67	82	<0.1
2,4- & 2,6-Dinitrotoluene	0.5	0.14	<0.14	-	<0.14	-	-	-
Methylnaphthalene, 2-(1-)	0.59	0.042	<0.042	-	<0.042	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthelene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

PHENOLIC COMPOUNDS

MATRIX: SOIL Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable per ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 2.1: Potable	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Res/Park/Inst		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
2-Chlorophenol	0.1	0.08	<0.08	<0.08	<0.08	68	72	<0.08
2,4-Dichlorophenol	0.1	0.1	<0.1	<0.1	<0.1	68	65	<0.1
2,4-Dimethylphenol	0.43	0.2	<0.2	<0.2	<0.2	60	65	<0.2
2,4-Dinitrophenol	2	0.5	<0.5	<0.5	<0.5	50	45	<0.5
Pentachlorophenol	0.1	0.1	<0.1	<0.1	<0.1	45	70	<0.1
Phenol	2.4	0.09	<0.09	<0.09	<0.09	65	59	<0.09
2,4,5-Trichlorophenol	0.11	0.08	<0.08	<0.08	<0.08	79	74	<0.08
2,4,6-Trichlorophenol	4.4	0.1	<0.1	<0.1	<0.1	69	71	<0.1

Criteria exceedences will turn BOLD with Yellow Background.
BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

- NOTES:
- NV = No value
- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Attachment E

Table 3.1 ICC ESQS Exceedances

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 406/19 Table 3.1: Non-Potable	REPORTING LIMIT	BH23-02-SS1 YJL602	BH23-09-SS2 YJL605	BH23-11-SS1 YJL606	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Ind/Comm/Cmt		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acetone	1.8	0.49	<0.49	<0.49	<0.49	84	85	<0.49
Benzene	0.034	0.006	<0.0060	<0.0060	<0.0060	84	87	<0.0060
Bromodichloromethane	5.8	0.04	<0.040	<0.040	<0.040	97	98	<0.040
Bromoform	2.5	0.04	<0.040	<0.040	<0.040	90	94	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	82	83	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	<0.040	89	90	<0.040
Chlorobenzene	0.28	0.04	<0.040	<0.040	<0.040	98	103	<0.040
Chloroform	0.26	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Dibromochloromethane	5.5	0.04	<0.040	<0.040	<0.040	91	94	<0.040
1,2-Dichlorobenzene	6.8	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,3-Dichlorobenzene	6.8	0.04	<0.040	<0.040	<0.040	97	94	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	0.57	0.04	<0.040	<0.040	<0.040	92	92	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	84	85	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	84	87	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	95	98	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	92	95	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	<0.040	90	92	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	91	93	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	96	99	<0.040
Ethylbenzene	1.9	0.01	<0.010	0.034	<0.010	84	90	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	94	97	<0.040
Methyl Ethyl Ketone	26	0.4	<0.40	<0.40	<0.40	90	93	<0.40
Methylene Chloride	0.2	0.049	<0.049	<0.049	<0.049	98	99	<0.049
Methyl Isobutyl Ketone	17	0.4	<0.40	<0.40	<0.40	85	89	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	<0.040	92	95	<0.040
Styrene	6.8	0.04	<0.040	<0.040	<0.040	97	105	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	96	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Toluene	7.8	0.02	<0.020	<0.020	<0.020	87	91	<0.020
Tetrachloroethylene	0.05	0.04	<0.040	<0.040	<0.040	95	98	<0.040
1,1,1-Trichloroethane	0.4	0.04	<0.040	<0.040	<0.040	91	92	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	85	87	<0.040
Trichloroethylene	0.05	0.01	<0.010	<0.010	<0.010	98	101	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	<0.020	90	97	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	<0.020	79	85	<0.020
Total Xylenes	3	0.02	<0.020	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	1.8	0.04	<0.040	<0.040	<0.040	63	65	<0.040
Dioxane, 1,4-	1.8	-	-	-	-	-	-	-
Hexane(n)	2.5	0.04	<0.040	<0.040	<0.040	77	84	<0.040
Trichlorofluoromethane	0.46	0.04	<0.040	<0.040	<0.040	88	90	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT		YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt			C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g						%	%	
Sampling Date	Coarse Grained			10-February-2024	10-February-2024	10-February-2024			
Antimony	40	0.2	ug/g	<0.20	5.8	<0.20	75	102	<0.20
Arsenic	18	1	ug/g	1.8	3.7	1	109	103	<1.0
Barium	670	0.5	ug/g	51	150	24	NC	107	<0.50
Beryllium	8	0.2	ug/g	0.33	0.49	<0.20	104	98	<0.20
Boron (Hot Water Soluble)	2	0.05	ug/g	0.19	2	0.15	103	101	<0.050
Cadmium	1.9	0.1	ug/g	<0.10	1.3	<0.10	106	99	<0.10
Chromium	160	1	ug/g	15	58	6.9	NC	97	<1.0
Chromium VI	8	0.18	ug/g	<0.18	<0.18	<0.18	78	93	<0.18
Cobalt	80	0.1	ug/g	6.2	11	4.4	106	99	<0.10
Copper	230	0.5	ug/g	13	150	6.3	NC	99	<0.50
Lead	120	1	ug/g	7.8	280	4.9	109	104	<1.0
Mercury	0.27	0.05	ug/g	<0.050	0.081	<0.050	115	110	<0.050
Molybdenum	40	0.5	ug/g	<0.50	2.8	<0.50	103	98	<0.50
Nickel	270	0.5	ug/g	14	28	5.7	NC	103	<0.50
Selenium	5.5	0.5	ug/g	<0.50	<0.50	<0.50	108	105	<0.50
Silver	40	0.2	ug/g	<0.20	1.6	<0.20	109	101	<0.20
Thallium	3.3	0.05	ug/g	0.11	0.11	0.05	111	106	<0.050
Vanadium	86	5	ug/g	21	25	15	NC	99	<5.0
Zinc	340	5	ug/g	37	470	19	NC	107	<5.0
pH (pH Units)	NV		%	8.01	7.93	7.93	-	100	-
Conductivity (ms/cm)	1.4	0.002	mS/cm	2	1.3	1.8	-	102	<0.002
Sodium Adsorption Ratio	12		N/A	46	13	29	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	<0.01	104	107	<0.01
Chloride	NV	-	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	5.2	14	<5.0	88	100	<5.0
Uranium	33	0.05	ug/g	0.49	0.5	0.33	108	101	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Benzene	0.034	-	-	-	-	-	-	-
Toluene	7.8	-	-	-	-	-	-	-
Ethylbenzene	1.9	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	3	-	-	-	-	-	-	-
F1 (C6-C10)	25	10	<10	<10	<10	79	88	<10
F1 (C6-C10) - BTEX	NV	10	<10	<10	<10	-	-	<10
F2 (C10-C16)	26	10	<10	17	38	103	101	<10
F3 (C16-C34)	1700	50	<50	200	120	103	100	<50
F4 (C34-C50)	3300	50	<50	110	<50	105	102	<50
Reached Baseline at C50	NV		YES	YES	YES	-	-	-
F4 Gravimetric	3300	-	-	-	-	-	-	-

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NOTES:

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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998
Bureau Veritas Job #	Ind/Comm/Cmty		C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024		
Aldrin	0.088	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	4.6	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.52	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.088	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.072	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.19	-	-	-	-	-	-
Total PCB	0.78	0.01	<0.010	0.027	<0.010	85	97
Hexachlorobenzene	0.66	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.13	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
2. This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
3. This summary is to be use in conjunction with, not as a replacement of the Laboratory Certificate of Analysis which contains all QA/QC information
4. New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
5. Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Method Blank
99999
C445120
ug/g
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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmty		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
Acenaphthene	15	0.06	<0.03	<0.06	<0.06	NC	87	<0.03
Acenaphthylene	0.093	0.1	<0.05	<0.1	<0.1	184	85	<0.05
Anthracene	0.16	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
Benzo(a)anthracene	1	0.1	<0.05	<0.1	<0.1	NC	105	<0.05
Benzo(a)pyrene	0.7	0.1	<0.05	<0.1	<0.1	NC	102	<0.05
Benzo(b/j)fluoranthene	7	0.2	<0.1	<0.2	<0.2	NC	114	<0.1
Benzo(ghi)perylene	13	0.2	<0.1	<0.2	<0.2	NC	125	<0.1
Benzo(k)fluoranthene	7	0.06	<0.03	<0.06	<0.06	NC	120	<0.03
Chrysene	14	0.1	<0.05	<0.1	<0.1	NC	98	<0.05
Dibenzo(a,h)anthracene	0.7	0.1	<0.05	<0.1	<0.1	166	124	<0.05
Fluoranthene	70	0.1	<0.05	<0.1	<0.1	NC	120	<0.05
Fluorene	6.8	0.06	<0.03	<0.06	<0.06	NC	94	<0.03
Indeno(1,2,3-cd)pyrene	0.76	0.2	<0.08	<0.2	<0.2	NC	119	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	8.7	0.06	<0.03	<0.06	<0.06	NC	93	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	8.7	0.06	<0.03	<0.06	<0.06	NC	89	<0.03
Naphthalene	1.8	0.06	<0.03	<0.06	<0.06	NC	80	<0.03
Phenanthrene	12	0.1	<0.05	<0.1	<0.1	NC	92	<0.05
Pyrene	70	0.1	<0.05	<0.1	<0.1	NC	110	<0.05
Biphenyl	21	0.1	<0.05	<0.1	<0.1	131	82	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.2	<0.4	<0.4	84	81	<0.2
Bis(2-chloroisopropyl)ether	11	0.2	<0.1	<0.2	<0.2	83	85	<0.1
Bis(2-ethylehexyl)phthalate	28	2	<1	<2	<2	79	64	<1
p-Chloroaniline	0.5	0.4	<0.2	<0.4	<0.4	80	49	<0.2
3,3'Dichlorobenzidine	1	1	<0.5	<1	<1	69	16	<0.5
Diethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	104	97	<0.2
Dimethyl phthalate	0.5	0.4	<0.2	<0.4	<0.4	88	82	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	140	86	<0.1
1,2,4-Trichlorobenzene	1.3	0.1	<0.05	<0.1	<0.1	72	81	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.1	<0.2	<0.2	65	83	<0.1
2,4- & 2,6-Dinitrotoluene	1.2	0.28	<0.14	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	8.7	0.085	<0.042	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 task 102, BUREAU VERITAS JOB: C445120

PHENOLIC COMPOUNDS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable per ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-02-SS1	BH23-09-SS2	BH23-11-SS1	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YJL602	YJL605	YJL606	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt		C445120	C445120	C445120	C445120	C445120	C445120
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		10-February-2024	10-February-2024	10-February-2024			
2-Chlorophenol	2.3	0.2	<0.08	<0.2	<0.2	92	90	<0.08
2,4-Dichlorophenol	3.4	0.2	<0.1	<0.2	<0.2	83	84	<0.1
2,4-Dimethylphenol	45	0.4	<0.2	<0.4	<0.4	93	88	<0.2
2,4-Dinitrophenol	6.7	1	<0.5	<1	<1	NC	26	<0.5
Pentachlorophenol	0.34	0.2	<0.1	<0.2	<0.2	54	64	<0.1
Phenol	5.3	0.2	<0.09	<0.2	<0.2	89	84	<0.09
2,4,5-Trichlorophenol	3.1	0.2	<0.08	<0.2	<0.2	83	79	<0.08
2,4,6-Trichlorophenol	0.43	0.2	<0.1	<0.2	<0.2	81	77	<0.1

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 406/19 Table 3.1: Non-Potable	REPORTING LIMIT	BH23-12-SS4 YKB834	BH23-12-SS4 DUP 1 YKB834 DUP 1	BH23-12-SS8 YKB837	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Ind/Comm/Cmty		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Acetone	1.8	0.49	<0.49	<0.49	<0.49	82	89	<0.49
Benzene	0.034	0.006	0.11	0.11	0.011	84	88	<0.0060
Bromodichloromethane	5.8	0.04	<0.040	<0.040	<0.040	95	102	<0.040
Bromoform	2.5	0.04	<0.040	<0.040	<0.040	88	96	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	<0.040	77	81	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	<0.040	87	93	<0.040
Chlorobenzene	0.28	0.04	<0.040	<0.040	<0.040	94	100	<0.040
Chloroform	0.26	0.04	<0.040	<0.040	<0.040	95	99	<0.040
Dibromochloromethane	5.5	0.04	<0.040	<0.040	<0.040	88	96	<0.040
1,2-Dichlorobenzene	6.8	0.04	<0.040	<0.040	<0.040	87	92	<0.040
1,3-Dichlorobenzene	6.8	0.04	<0.040	<0.040	<0.040	95	93	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	<0.040	105	101	<0.040
1,1-Dichloroethane	0.57	0.04	<0.040	<0.040	<0.040	91	97	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	<0.049	83	89	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	83	86	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	93	98	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	<0.040	89	93	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	<0.040	89	95	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	<0.030	79	80	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	<0.040	83	85	<0.040
Ethylbenzene	1.9	0.01	0.16	0.15	0.017	81	84	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	<0.040	90	99	<0.040
Methyl Ethyl Ketone	26	0.4	1.1	1	<0.40	89	95	<0.40
Methylene Chloride	0.2	0.049	<0.049	<0.049	<0.049	97	102	<0.049
Methyl Isobutyl Ketone	17	0.4	<0.40	<0.40	<0.40	82	87	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	<0.040	87	91	<0.040
Styrene	6.8	0.04	<0.040	<0.040	<0.040	97	98	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	93	102	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	<0.040	94	103	<0.040
Toluene	7.8	0.02	0.21	0.21	<0.020	84	90	<0.020
Tetrachloroethylene	0.05	0.04	0.043	<0.040	<0.040	90	97	<0.040
1,1,1-Trichloroethane	0.4	0.04	<0.040	<0.040	<0.040	89	96	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	<0.040	83	91	<0.040
Trichloroethylene	0.05	0.01	0.01	0.011	<0.010	94	97	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	<0.019	80	84	<0.019
m-Xylene & p-Xylene	NV	0.02	0.1	0.1	<0.020	87	89	<0.020
o-Xylene	NV	0.02	0.067	0.067	<0.020	79	81	<0.020
Total Xylenes	3	0.02	0.17	0.17	<0.020	-	-	<0.020
Dichlorodifluoromethane	1.8	0.04	<0.040	<0.040	<0.040	60	63	<0.040
Dioxane, 1,4-	1.8	-	-	-	-	-	-	-
Hexane(n)	2.5	0.04	<0.040	<0.040	<0.040	77	82	<0.040
Trichlorofluoromethane	0.46	0.04	<0.040	<0.040	<0.040	86	91	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	-	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT		YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt			C448271	C448271	C448271	C448271	C448271
Units	ug/g					%	%	
Sampling Date	Coarse Grained			14-February-2024	14-February-2024			
Antimony	40	0.2	ug/g	6	10	97	100	<0.20
Arsenic	18	1	ug/g	6.1	6.8	96	100	<1.0
Barium	670	0.5	ug/g	160	300	NC	99	<0.50
Beryllium	8	0.2	ug/g	0.45	0.33	99	100	<0.20
Boron (Hot Water Soluble)	2	0.05	ug/g	3	5.4	105	107	<0.050
Cadmium	1.9	0.1	ug/g	5.4	4.1	96	98	<0.10
Chromium	160	1	ug/g	40	50	99	97	<1.0
Chromium VI	8	0.18	ug/g	<0.18	<0.18	89	90	<0.18
Cobalt	80	0.1	ug/g	8.6	9.7	96	99	<0.10
Copper	230	0.5	ug/g	120	300	96	99	<0.50
Lead	120	1	ug/g	410	780	95	99	<1.0
Mercury	0.27	0.05	ug/g	0.39	0.25	98	101	<0.050
Molybdenum	40	0.5	ug/g	3.6	5.6	96	96	<0.50
Nickel	270	0.5	ug/g	100	110	96	99	<0.50
Selenium	5.5	0.5	ug/g	0.51	<0.50	97	101	<0.50
Silver	40	0.2	ug/g	1.7	3.3	96	98	<0.20
Thallium	3.3	0.05	ug/g	0.093	0.058	100	103	<0.050
Vanadium	86	5	ug/g	29	24	103	100	<5.0
Zinc	340	5	ug/g	670	1000	NC	106	<5.0
pH (pH Units)	NV		%	7.98	8.66	-	100	-
Conductivity (ms/cm)	1.4	0.002	mS/cm	1.9	3.5	-	101	<0.002
Sodium Adsorption Ratio	12		N/A	11	21	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	101	103	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	18	39	97	101	<5.0
Uranium	33	0.05	ug/g	0.49	0.47	97	100	<0.050

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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performance ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS4	BH23-12-SS4 DUP 1	BH23-12-SS8	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YKB834	YKB834 DUP 1	YKB837	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt		C448271	C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024	14-February-2024			
Benzene	0.034	-	-	-	-	-	-	-
Toluene	7.8	-	-	-	-	-	-	-
Ethylbenzene	1.9	-	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-	-
Total Xylenes	3	-	-	-	-	-	-	-
F1 (C6-C10)	25	10	16	16	47	61	94	<10
F1 (C6-C10) - BTEX	NV	10	15	15	47	-	-	<10
F2 (C10-C16)	26	10	20	-	140	92	91	<10
F3 (C16-C34)	1700	50	840	-	390	94	94	<50
F4 (C34-C50)	3300	50	1200	-	170	92	92	<50
Reached Baseline at C50	NV		NO	-	YES	-	-	-
F4 Gravimetric	3300	100	3800	-	-	NC	101	<100

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- New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Aldrin	0.088	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	4.6	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.52	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.088	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.072	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.19	-	-	-	-	-	-
Total PCB	0.78	0.01	<0.20	0.24	99	100	<0.010
Hexachlorobenzene	0.66	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.13	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

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5. Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmty		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
Acenaphthene	15	0.06	<0.06	<0.06	77	78	<0.03
Acenaphthylene	0.093	0.1	<0.1	<0.1	76	77	<0.05
Anthracene	0.16	0.06	<0.06	0.07	83	84	<0.03
Benzo(a)anthracene	1	0.1	<0.1	0.1	98	96	<0.05
Benzo(a)pyrene	0.7	0.1	<0.1	0.1	96	96	<0.05
Benzo(b/j)fluoranthene	7	0.2	<0.2	<0.2	90	93	<0.1
Benzo(ghi)perylene	13	0.2	<0.2	<0.2	101	105	<0.1
Benzo(k)fluoranthene	7	0.06	<0.06	<0.06	92	93	<0.03
Chrysene	14	0.1	<0.1	0.1	91	91	<0.05
Dibenzo(a,h)anthracene	0.7	0.1	<0.1	<0.1	102	104	<0.05
Fluoranthene	70	0.1	0.1	0.3	109	110	<0.05
Fluorene	6.8	0.06	<0.06	0.08	86	86	<0.03
Indeno(1,2,3-cd)pyrene	0.76	0.2	<0.2	<0.2	96	97	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	8.7	0.06	<0.06	<0.06	75	82	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	8.7	0.06	<0.06	<0.06	71	79	<0.03
Naphthalene	1.8	0.06	<0.06	0.07	61	78	<0.03
Phenanthrene	12	0.1	<0.1	0.4	85	86	<0.05
Pyrene	70	0.1	0.1	0.3	104	102	<0.05
Biphenyl	21	0.1	<0.1	<0.1	71	74	<0.05
Bis(2-chloroethyl)ether	0.5	0.4	<0.4	<0.4	64	75	<0.2
Bis(2-chloroisopropyl)ether	11	0.2	<0.2	<0.2	64	78	<0.1
Bis(2-ethylehexyl)phthalate	28	2	<2	<2	81	75	<1
p-Chloroaniline	0.5	0.4	<0.4	<0.4	68	55	<0.2
3,3'Dichlorobenzidine	1	1	<1	<1	91	49	<0.5
Diethyl phthalate	0.5	0.4	<0.4	<0.4	95	98	<0.2
Dimethyl phthalate	0.5	0.4	<0.4	<0.4	83	84	<0.2
2,4-Dinitrotoluene	NV	0.2	<0.2	<0.2	90	92	<0.1
1,2,4-Trichlorobenzene	1.3	0.1	<0.1	<0.1	54	77	<0.05
2,6-Dinitrotoluene	NV	0.2	<0.2	<0.2	80	82	<0.1
2,4- & 2,6-Dinitrotoluene	1.2	0.28	<0.28	<0.28	-	-	-
Methylnaphthalene, 2-(1-)	8.7	0.085	<0.085	<0.085	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthelene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc. **Bureau Veritas Guideline Comparison Tables**

PROJECT #: CA0010794.5857 TASK 102, BUREAU VERITAS JOB: C448271

PHENOLIC COMPOUNDS

MATRIX: SOIL **Select Guideline from list above for comparison.**

Note: Window zoom values other than 75% may cause unstable pe ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-12-SS1	BH23-12-SS4	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YKB830	YKB834	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt		C448271	C448271	C448271	C448271	C448271
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		14-February-2024	14-February-2024			
2-Chlorophenol	2.3	0.2	<0.2	<0.2	79	86	<0.08
2,4-Dichlorophenol	3.4	0.2	<0.2	<0.2	82	88	<0.1
2,4-Dimethylphenol	45	0.4	<0.4	<0.4	89	86	<0.2
2,4-Dinitrophenol	6.7	1	<1	<1	79	57	<0.5
Pentachlorophenol	0.34	0.2	<0.2	<0.2	67	68	<0.1
Phenol	5.3	0.2	<0.2	<0.2	79	81	<0.09
2,4,5-Trichlorophenol	3.1	0.2	<0.2	<0.2	84	82	<0.08
2,4,6-Trichlorophenol	0.43	0.2	<0.2	<0.2	81	80	<0.1

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6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

VOLATILE ORGANIC COMPOUNDS

MATRIX:

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID Laboratory ID / Guideline ID	Guideline 406/19 Table 3.1: Non-Potable	REPORTING LIMIT	BH23-13-SS3 YLA384	BH23-13-SS6 YLA387	Matrix Spike 99995	SPIKED BLANK 99998	Method Blank 99999
Bureau Veritas Job #	Ind/Comm/Cmt		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Acetone	1.8	0.49	<0.49	<0.49	94	98	<0.49
Benzene	0.034	0.006	<0.0060	<0.0060	93	95	<0.0060
Bromodichloromethane	5.8	0.04	<0.040	<0.040	102	102	<0.040
Bromoform	2.5	0.04	<0.040	<0.040	89	86	<0.040
Bromomethane	0.05	0.04	<0.040	<0.040	88	87	<0.040
Carbon Tetrachloride	0.05	0.04	<0.040	<0.040	97	99	<0.040
Chlorobenzene	0.28	0.04	<0.040	<0.040	102	100	<0.040
Chloroform	0.26	0.04	<0.040	<0.040	102	102	<0.040
Dibromochloromethane	5.5	0.04	<0.040	<0.040	95	92	<0.040
1,2-Dichlorobenzene	6.8	0.04	<0.040	<0.040	94	94	<0.040
1,3-Dichlorobenzene	6.8	0.04	<0.040	<0.040	97	98	<0.040
1,4-Dichlorobenzene	0.05	0.04	<0.040	<0.040	106	105	<0.040
1,1-Dichloroethane	0.57	0.04	<0.040	<0.040	104	105	<0.040
1,2-Dichloroethane	0.05	0.049	<0.049	<0.049	90	91	<0.049
1,1-Dichloroethylene	0.05	0.04	<0.040	<0.040	103	106	<0.040
Cis-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	98	97	<0.040
Trans-1,2-Dichloroethylene	0.05	0.04	<0.040	<0.040	101	100	<0.040
1,2-Dichloropropane	0.05	0.04	<0.040	<0.040	101	102	<0.040
Cis-1,3-Dichloropropylene	NV	0.03	<0.030	<0.030	91	94	<0.030
Trans-1,3-Dichloropropylene	NV	0.04	<0.040	<0.040	92	93	<0.040
Ethylbenzene	1.9	0.01	<0.010	<0.010	92	94	<0.010
Ethylene Dibromide	0.05	0.04	<0.040	<0.040	95	93	<0.040
Methyl Ethyl Ketone	26	0.4	<0.40	<0.40	98	102	<0.40
Methylene Chloride	0.2	0.049	<0.049	<0.049	99	99	<0.049
Methyl Isobutyl Ketone	17	0.4	<0.40	<0.40	97	101	<0.40
Methyl-t-Butyl Ether	0.05	0.04	<0.040	<0.040	100	101	<0.040
Styrene	6.8	0.04	<0.040	<0.040	103	104	<0.040
1,1,1,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
1,1,1,2,2-Tetrachloroethane	0.05	0.04	<0.040	<0.040	99	98	<0.040
Toluene	7.8	0.02	<0.020	<0.020	91	91	<0.020
Tetrachloroethylene	0.05	0.04	<0.040	<0.040	95	95	<0.040
1,1,1-Trichloroethane	0.4	0.04	<0.040	<0.040	99	102	<0.040
1,1,2-Trichloroethane	0.05	0.04	<0.040	<0.040	93	92	<0.040
Trichloroethylene	0.05	0.01	<0.010	<0.010	98	99	<0.010
Vinyl Chloride	0.02	0.019	<0.019	<0.019	103	103	<0.019
m-Xylene & p-Xylene	NV	0.02	<0.020	<0.020	98	101	<0.020
o-Xylene	NV	0.02	<0.020	<0.020	85	87	<0.020
Total Xylenes	3	0.02	<0.020	<0.020	-	-	<0.020
Dichlorodifluoromethane	1.8	0.04	<0.040	<0.040	77	78	<0.040
Dioxane, 1,4-	1.8	-	-	-	-	-	-
Hexane(n)	2.5	0.04	<0.040	<0.040	100	102	<0.040
Trichlorofluoromethane	0.46	0.04	<0.040	<0.040	102	104	<0.040
1,3-Dichloropropene (cis + trans)	0.05	0.05	<0.050	<0.050	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791
INORGANIC PARAMETERS
MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable perform ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	Units	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT		YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt			C452791	C452791	C452791	C452791	C452791
Units	ug/g					%	%	
Sampling Date	Coarse Grained			20-February-2024	20-February-2024			
Antimony	40	0.2	ug/g	<0.20	<0.20	98	98	<0.20
Arsenic	18	1	ug/g	1.4	3.4	100	97	<1.0
Barium	670	0.5	ug/g	22	120	NC	96	<0.50
Beryllium	8	0.2	ug/g	<0.20	0.49	100	95	<0.20
Boron (Hot Water Soluble)	2	0.05	ug/g	0.088	0.31	102	99	<0.050
Cadmium	1.9	0.1	ug/g	<0.10	<0.10	98	96	<0.10
Chromium	160	1	ug/g	11	23	97	95	<1.0
Chromium VI	8	0.18	ug/g	<0.18	0.38	88	93	<0.18
Cobalt	80	0.1	ug/g	2.9	8.3	96	96	<0.10
Copper	230	0.5	ug/g	6.8	17	99	97	<0.50
Lead	120	1	ug/g	5.1	5.7	NC	97	<1.0
Mercury	0.27	0.05	ug/g	<0.050	<0.050	96	98	<0.050
Molybdenum	40	0.5	ug/g	<0.50	<0.50	100	92	<0.50
Nickel	270	0.5	ug/g	6	18	96	97	<0.50
Selenium	5.5	0.5	ug/g	<0.50	<0.50	98	100	<0.50
Silver	40	0.2	ug/g	<0.20	<0.20	97	95	<0.20
Thallium	3.3	0.05	ug/g	0.058	0.13	96	99	<0.050
Vanadium	86	5	ug/g	16	33	101	96	<5.0
Zinc	340	5	ug/g	22	42	NC	98	<5.0
pH (pH Units)	NV		%	8.1	8.04	-	100	-
Conductivity (ms/cm)	1.4	0.002	mS/cm	2.1	1.2	-	103	<0.002
Sodium Adsorption Ratio	12		N/A	20	12	-	-	-
Cyanide, Free	0.051	0.01	ug/g	<0.01	<0.01	98	95	<0.01
Chloride	NV	-	-	-	-	-	-	-
Boron (Total)	120	5	ug/g	<5.0	9.5	95	94	<5.0
Uranium	33	0.05	ug/g	0.33	0.71	97	95	<0.050

Criteria exceedences will turn BOLD with Yellow Background.
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CLIENT: WSP Canada Inc.

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

BTEX, CCME PETROLEUM HYDROCARBONS

MATRIX: SOIL

Bureau Veritas Guideline Comparison Tables

Select Guideline from list above for comparison.

Note: Zoom values other than 75% may cause unstable performan ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Benzene	0.034	-	-	-	-	-	-
Toluene	7.8	-	-	-	-	-	-
Ethylbenzene	1.9	-	-	-	-	-	-
m/p xylenes	NV	-	-	-	-	-	-
o xylene	NV	-	-	-	-	-	-
Total Xylenes	3	-	-	-	-	-	-
F1 (C6-C10)	25	10	<10	<10	95	93	<10
F1 (C6-C10) - BTEX	NV	10	<10	<10	-	-	<10
F2 (C10-C16)	26	10	75	63	101	90	<10
F3 (C16-C34)	1700	50	160	96	95	87	<50
F4 (C34-C50)	3300	50	<50	<50	94	86	<50
Reached Baseline at C50	NV		YES	YES	-	-	-
F4 Gravimetric	3300	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

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NOTES:

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- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

ORGANOCHLORINATED PESTICIDES & PCBs

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance.

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Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YLA384	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmty		C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024			
Aldrin	0.088	-	-	-	-	-	-
Chlordane (alpha)	NV	-	-	-	-	-	-
Chlordane (gamma)	NV	-	-	-	-	-	-
Chlordane (total)	0.05	-	-	-	-	-	-
o,p DDD	NV	-	-	-	-	-	-
p,p-DDD	NV	-	-	-	-	-	-
DDD (total)	4.6	-	-	-	-	-	-
o,p DDE	NV	-	-	-	-	-	-
p,p-DDE	NV	-	-	-	-	-	-
DDE (total)	0.52	-	-	-	-	-	-
op-DDT	NV	-	-	-	-	-	-
pp-DDT	NV	-	-	-	-	-	-
DDT (total)	1.4	-	-	-	-	-	-
Dieldrin	0.088	-	-	-	-	-	-
Endosulphan I	NV	-	-	-	-	-	-
Endosulphan II	NV	-	-	-	-	-	-
Total Endosulphan	0.04	-	-	-	-	-	-
Endrin	0.04	-	-	-	-	-	-
Heptachlor	0.072	-	-	-	-	-	-
Heptachlor Epoxide	0.05	-	-	-	-	-	-
Lindane	0.01	-	-	-	-	-	-
Methoxychlor	0.19	-	-	-	-	-	-
Total PCB	0.78	0.01	<0.010	<0.010	89	106	<0.010
Hexachlorobenzene	0.66	-	-	-	-	-	-
Hexachlorobutadiene	0.01	-	-	-	-	-	-
Hexachloroethane	0.13	-	-	-	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

1. Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
2. This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
3. This summary is to be use in conjunction with, not as a replacement of the Laboratory Certificate of Analysis which contains all QA/QC information
4. New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
5. Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
6. Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.

Bureau Veritas Guideline Comparison Tables

PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

SEMIVOLATILE ORGANICS

MATRIX: SOIL

Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable performance. ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmty		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
Acenaphthene	15	0.03	<0.03	<0.03	<0.03	69	72	<0.03
Acenaphthylene	0.093	0.05	<0.05	<0.05	<0.05	67	70	<0.05
Anthracene	0.16	0.03	<0.03	<0.03	<0.03	82	81	<0.03
Benzo(a)anthracene	1	0.05	<0.05	<0.05	<0.05	99	96	<0.05
Benzo(a)pyrene	0.7	0.05	<0.05	<0.05	<0.05	97	109	<0.05
Benzo(b/j)fluoranthene	7	0.1	<0.1	<0.1	<0.1	88	110	<0.1
Benzo(ghi)perylene	13	0.1	<0.1	<0.1	<0.1	100	116	<0.1
Benzo(k)fluoranthene	7	0.03	<0.03	<0.03	<0.03	94	115	<0.03
Chrysene	14	0.05	<0.05	<0.05	<0.05	90	91	<0.05
Dibenzo(a,h)anthracene	0.7	0.05	<0.05	<0.05	<0.05	101	118	<0.05
Fluoranthene	70	0.05	<0.05	<0.05	<0.05	110	109	<0.05
Fluorene	6.8	0.03	<0.03	<0.03	<0.03	78	83	<0.03
Indeno(1,2,3-cd)pyrene	0.76	0.08	<0.08	<0.08	<0.08	97	113	<0.08
1-Methylnaphthalene (SEE FOOTNOTE 6)	8.7	0.03	<0.03	<0.03	<0.03	71	71	<0.03
2-Methylnaphthalene (SEE FOOTNOTE 6)	8.7	0.03	<0.03	<0.03	<0.03	68	69	<0.03
Naphthalene	1.8	0.03	<0.03	<0.03	<0.03	61	64	<0.03
Phenanthrene	12	0.05	<0.05	<0.05	<0.05	84	84	<0.05
Pyrene	70	0.05	<0.05	<0.05	<0.05	100	98	<0.05
Biphenyl	21	0.05	<0.05	<0.05	<0.05	66	67	<0.05
Bis(2-chloroethyl)ether	0.5	0.2	<0.2	<0.2	<0.2	66	61	<0.2
Bis(2-chloroisopropyl)ether	11	0.1	<0.1	<0.1	<0.1	68	64	<0.1
Bis(2-ethylehexyl)phthalate	28	1	<1	<1	<1	80	64	<1
p-Chloroaniline	0.5	0.2	<0.2	<0.2	<0.2	53	51	<0.2
3,3'Dichlorobenzidine	1	0.5	<0.5	<0.5	<0.5	81	11	<0.5
Diethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	88	99	<0.2
Dimethyl phthalate	0.5	0.2	<0.2	<0.2	<0.2	72	84	<0.2
2,4-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	75	84	<0.1
1,2,4-Trichlorobenzene	1.3	0.05	<0.05	<0.05	<0.05	62	70	<0.05
2,6-Dinitrotoluene	NV	0.1	<0.1	<0.1	<0.1	67	82	<0.1
2,4- & 2,6-Dinitrotoluene	1.2	0.14	<0.14	-	<0.14	-	-	-
Methylnaphthalene, 2-(1-)	8.7	0.042	<0.042	-	<0.042	-	-	-

Criteria exceedences will turn BOLD with Yellow Background.

BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

NOTES:

NV = No value

- Criteria refers to Ministry of Environment "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
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- Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
- WARNING: The methylnaphthalene standards are applicable to both 1-Methylnaphthalene and 2-Methylnaphthalene, with the provision that if both are detected the sum of the two must not exceed the standard.
- Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

CLIENT: WSP Canada Inc.
PROJECT #: CA0010794.5758 TASK 102, BUREAU VERITAS JOB: C452791

PHENOLIC COMPOUNDS

MATRIX: SOIL Select Guideline from list above for comparison.

Note: Window zoom values other than 75% may cause unstable pei ** See Note #5 at bottom of sheet for more information about Guideline Flagging.

Sample ID	Guideline	REPORTING	BH23-13-SS3	BH23-13-SS3 DUP 1	BH23-13-SS6	Matrix Spike	SPIKED BLANK	Method Blank
Laboratory ID / Guideline ID	406/19 Table 3.1: Non-Potable	LIMIT	YLA384	YLA384 DUP 1	YLA387	99995	99998	99999
Bureau Veritas Job #	Ind/Comm/Cmt		C452791	C452791	C452791	C452791	C452791	C452791
Units	ug/g	ug/g	ug/g	ug/g	ug/g	%	%	ug/g
Sampling Date	Coarse Grained		20-February-2024	20-February-2024	20-February-2024			
2-Chlorophenol	2.3	0.08	<0.08	<0.08	<0.08	68	72	<0.08
2,4-Dichlorophenol	3.4	0.1	<0.1	<0.1	<0.1	68	65	<0.1
2,4-Dimethylphenol	45	0.2	<0.2	<0.2	<0.2	60	65	<0.2
2,4-Dinitrophenol	6.7	0.5	<0.5	<0.5	<0.5	50	45	<0.5
Pentachlorophenol	0.34	0.1	<0.1	<0.1	<0.1	45	70	<0.1
Phenol	5.3	0.09	<0.09	<0.09	<0.09	65	59	<0.09
2,4,5-Trichlorophenol	3.1	0.08	<0.08	<0.08	<0.08	79	74	<0.08
2,4,6-Trichlorophenol	0.43	0.1	<0.1	<0.1	<0.1	69	71	<0.1

Criteria exceedences will turn BOLD with Yellow Background.
BOLD with Blue Background indicates non-detected but RDL > Guideline criteria (due to dilution etc)

- NOTES:
- NV = No value
- Criteria refers to Ministry of Environment "Soil, Ground Water and and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" March 9, 2004, amended as of July 1, 2011
 - This table represents a summary of the data presented in the Laboratory Certificate of Analysis for convenience purposes only
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 - New parameters indicated in the July 1, 2011 amendment, will appear at the bottom of each criteria page.
 - Guideline flagging accuracy only guaranteed when result units correspond with guideline units on spreadsheet.
 - Criteria for 406/19 refers to "Ontario Regulation 406/19: On-Site and Excess Soil Management" December 4, 2019

Appendix B

Hauling Record Templates



Hauling Record

ECS/ City Project No. _____

Source Site (Project Area)			
Address		City, Province	Postal Code
Source Site Location:			
Contact Name: (Contractor)		Telephone:	
Company Name: (Contractor)		Email:	
Load Details			
Date Loaded: (DD/MM/YY)		Quality of Material: (if known)	Salt-impacted excess soil: <input type="checkbox"/> Yes <input type="checkbox"/> No
Time Loaded:			
Specify originating location within Project Area for load:			
Quantity: (specify m ³ or tonnes)			
Contact Name: (i.e. QP Consultant for soil quality info.)		Telephone:	
		Email:	
Contingency Measures: If the excess soil cannot be deposited at the intended receiver site, the excess soil must be: <input type="checkbox"/> Returned to Source Site <input type="checkbox"/> Placed at the following Alternate Site: _____ <div>Address, City, Province, Postal Code</div>			
I hereby certify that the above information is accurate and the material has been properly described, classified and packaged, and is in proper condition for transportation to the applicable regulation.			
Authorizer's Name: (Contractor)		Signature:	
Transporter			
Transport Company:		License Plate No.	
Driver's Name:		Driver's Signature:	
Receiver Site			
Company Name:	Receiver Site Address	City, Province	Postal Code
Date Deposited: (DD/MM/YY)		Time Deposited:	
I hereby certify that the above listed material has been accepted at the above-noted receiver site location on the specified date and time, and that the materials are representative of the materials outlined above.			
Receiving Site Authorizer's Name:		Telephone:	
Email:		Signature:	

<Insert your company logo here>

Excess Soil Multiple Pickup Hauling Record

P/O Ticket _____

REGISTERED GENERATOR: Location 1		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code
GENERATING SITE			
Street Address		City	Quantity
Location 1			
Soil Information			
Profile/ID #:		Other Notes:	
Quantity Loaded:			
Contact Name: (For soil quality info)		Tel:	Email:
REGISTERED GENERATOR: Location 2		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code
GENERATING SITE			
Street Address		City	Quantity
Location 2			
Soil Information			
Profile/ID #:		Other Notes:	
Quantity Loaded:			
REGISTERED GENERATOR: Location 3		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code

Highlighted sections denote required information to meet Section 18 (Information to be Provided) of Ontario Regulation 406/19: On-Site and Excess Soil Management

GENERATING SITE			
<i>Street Address</i>		<i>City</i>	<i>Quantity</i>
Location 3			
Soil Information			
Profile/ID #:		Other Notes:	
Quantity Loaded:			
Contact Name: <i>(For soil quality info)</i>		Tel:	Email:
REGISTERED GENERATOR: Location 4		P/O Ticket #:	
Contact Name:		Tel:	
Signature:		Email:	
Generating Company	Address	City, Province	Postal Code
GENERATING SITE			
<i>Street Address</i>		<i>City</i>	<i>Quantity</i>
Location 4			
Soil Information			
Profile/ID #:		Other Notes:	
Quantity Loaded:			
Contact Name: <i>(For soil quality info)</i>		Tel:	Email:
TRANSPORTER			
Transport Company	Address	City	Postal Code
Driver Name:		Tel:	
License Plate #:		Email:	
RECEIVER			
Receiving Company	Address	City	Postal Code
Date	Time	Lat.:	
Unloaded:	Unloaded:	Long.:	
I hereby certify that the above listed material has been accepted and that the materials are representative of the materials outlined in the above.			
Authorizer Name:		Tel:	
Signature:		Email:	

Highlighted sections denote required information to meet Section 18 (Information to be Provided) of Ontario Regulation 406/19: On-Site and Excess Soil Management

Appendix C

Soil Tonnage Tracking Sheet Template

SOIL TONNAGE TRACKING SHEET

Project Name:

Receiving Site Location:

Source Site Location:

Material Type:

	Date	Truck Number	License Plate Number	Ticket Number	Time in	Time out	Tonnage
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							

Appendix D

Site-Specific Fill Importation Form Template

The following application is for importation of excess soil for beneficial reuse at the Dufferin Waste Transfer Station. The application is to be completed based on direction provided in the attached "Soil Management Plan, Dufferin Transfer Station, 35 Vanley Crescent, North York, Ontario".

Section A – Source Site Details	
Address:	
Source Site Project Leader:	Source Site QP:
Address:	Address:
E-mail address:	E-mail address:

Section B – Material Description
Physical description of material proposed for shipment:
Anticipated volume for shipment (cubic metres):
Delivery schedule:
Excess Soil Quality Standards applied to Source Site:

Section C – Acceptance Checklist (to be completed by QP-C)				
Source Site ID number:	Y	N	Unclear	N/A
Copies of reports provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phase I ESA / APU conducted within past 18 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Phase II ESA / SCR conducted within past 18 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comprehensive Soil Chemical Analysis conducted within past 18 months	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Update provided justifying analysis greater than 18 months old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Chemical Analysis includes figures showing sampling locations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Registered on the Excess Soil Registry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment of Past Uses conducted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampling and Analysis Plan conducted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soil Characterization Report conducted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Excess Soil Destination Assessment Report prepared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tracking System in place	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sampling methods appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample locations appropriate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample frequency acceptable for volume of import	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Samples analyzed for appropriate parameters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accredited laboratory used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Laboratory leachate results meet appropriate leachate screening levels	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall quality of reports acceptable	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Source Site deemed acceptable for importation of fill	<input type="checkbox"/>	<input type="checkbox"/>		

List of reports reviewed by QP-C in support of application:

(attach additional pages if required)

Acceptable material meets:

☐ Table 1, RPIICC SCS

☐ Table 3.1 ICC (Coarse) ESQS/LSL

Section D – Qualified Person Declaration (To be completed by QP-PL)

QP-PL Name:

Company name:

Address:

Telephone number:

E-mail address:

I declare that I am a "Qualified Person" as defined by Ontario Regulation 153/04. It is my opinion that the above Source Site and described material is in compliance with the requirements described in the Soil Management Plan for the Commissioners Waste Transfer Station Reuse Site.

Imported soil suitable for use where the following soil type is required

☐ Table 1, RPIICC SCS

☐ Table 3.1 ICC (Coarse) ESQS/LSL

Additional Comments:

Signature

Date (dd/mm/yyyy)

Name (print)

Appendix E

Limitations

Limitations

1. The work performed in the preparation of this report and the conclusions presented are subject to the following:
 - a. The Standard Terms and Conditions based on WSP's submission dated May 8, 2023 in accordance with the City and WSP's Blanket Contract for the RFP SW-C06-003-23.
 - b. The Scope of Services;
 - c. Time and Budgetary limitations as described in our Contract; and
 - d. The Limitations stated herein.
2. No other warranties or representations, either expressed or implied, are made as to the professional services provided under the terms of our Contract, or the conclusions presented.
3. The conclusions presented in this report were based, in part, on visual observations of the Site and attendant structures. Our conclusions cannot and are not extended to include those portions of the Site or structures, which are not reasonably available, in WSP's opinion, for direct observation.
4. The environmental conditions at the Site were assessed, within the limitations set out above, having due regard for applicable environmental regulations as of the date of the inspection. A review of compliance by past owners or occupants of the Site with any applicable local, provincial, or federal bylaws, orders-in-council, legislative enactments and regulations was not performed.
5. The Site history research included obtaining information from third parties and employees or agents of the owner. No attempt has been made to verify the accuracy of any information provided, unless specifically noted in our report.
6. Where testing was performed, it was carried out in accordance with the terms of our contract providing for testing. Other substances, or different quantities of substances testing for, may be present on-site and may be revealed by different or other testing not provided for in our contract.
7. Because of the limitations referred to above, different environmental conditions from those stated in our report may exist. Should such different conditions be encountered, WSP must be notified in order that it may determine if modifications to the conclusions in the report are necessary.
8. The utilization of WSP's services during the implementation of any remedial measures will allow WSP to observe compliance with the conclusions and recommendations contained in the report. WSP's involvement will also allow for changes to be made as necessary to suit field conditions as they are encountered.
9. This report is for the sole use of the party to whom it is addressed unless expressly stated otherwise in the report or contract. Any use which any third party makes of the report, in whole or the part, or any reliance thereon or decisions made based on any information or conclusions in the report is the sole responsibility of such third party. WSP accepts no responsibility whatsoever for damages or loss of any nature or kind suffered by any such third party as a result of actions taken or not taken or decisions made in reliance on the report or anything set out therein.
10. This report is not to be given over to any third party for any purpose whatsoever without the written permission of WSP.
11. Provided that the report is still reliable, and less than 12 months old, WSP will issue a third-party reliance letter to parties that the client identifies in writing, upon payment of the then current fee for such letters. All third parties relying on WSP's report, by such reliance agree to be bound by our proposal and WSP's standard reliance letter. WSP's standard reliance letter indicates that in no event shall WSP be liable for any damages, howsoever arising, relating to third-party reliance on WSP's report. No reliance by any party is permitted without such agreement.

