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Project: 690667

BC Ministry of Environment and Climate Change Strategy
PO Box 9347 Stn Prov Govt
Victoria, BC V8W 9M1

ATTENTION: Robyn Roome, Executive Director

REFERENCE: **Results of Sediment and Surface Water Investigation**
Evaluation of Waterways – Nicola and Coldwater Rivers
(Downstream and Upstream from Merritt)

Following the catastrophic flooding that occurred in November 2021, SNC-Lavalin Inc. (SNC-Lavalin), on behalf of the BC Ministry of Environment and Climate Change Strategy (ENV), conducted a waterway evaluation program to assess water and sediment quality in the Nicola River between Merritt and Spences Bridge, BC, and the Coldwater River between Merritt and Juliet Drive Junction, BC. The Program was developed to provide continued support for BC's Flood Disaster Recovery Program.

The Program described below was developed to target the specific concerns as outlined. It was not developed to be a comprehensive study on the condition of the watershed.

1 Background

In November 2021, "atmospheric river" events occurred across southwestern BC causing widespread flooding and damage in some communities. A Preliminary Conceptual Site Model[1] (PCSM) was developed by SNC-Lavalin for three identified Study Areas: Sumas Prairie, Merritt, and Princeton. The PCSMs identified priority contaminants, media, receptors, and pathways, defined as those with the highest potential risks to human health and the environment. A Preliminary Regional Risk Assessment[2] (PRRA) was completed in June 2022 to evaluate the impacts of flood-induced contamination on human health and the environment. The results of the PRRA indicated that no unacceptable risks to human or ecological receptors were present.

Nevertheless, communities in several geographic areas expressed concern regarding risks to health and the environment, as potential contaminants of concern (PCOCs; chemical and microbiological) were identified by previous studies in waterways following flood events. In particular, the media of concern were surface water and river sediment. The Program for the Nicola and Coldwater rivers presented herein was developed to address potential concerns about the Nicola River from Merritt to Spences Bridge, and the Coldwater River from Merritt to Juliet Drive Junction, north of Coldwater River Provincial Park, BC.

[1] *Preliminary Conceptual Site Models of Potential Contamination Related to the 2021 Atmospheric River Event in BC, Hope, Sumas Prairie, Princeton and Merritt*, SNC-Lavalin Inc., dated March 30, 2022.
[2] *Preliminary Regional Risk Assessment for Contamination Related to the 2021 Atmospheric River Flood Event, Merritt Study Area,* SNC-Lavalin Inc., dated June 29, 2022.

1.1 Objectives and Planning

SNC-Lavalin and ENV worked collaboratively to define a list of criteria and sources to be used in the identification of sampling sites for the Program.

The purpose of the Program was to assess sediment and surface water for PCOCs associated with the November 2021 flood event. Similar to the PCSM, a single GIS platform was built using ESRI™ ArcGIS® technology, to select and assess potential sampling locations. Data were compiled from a variety of publicly available sources and map layers into a project spatial common data environment. Information was primarily obtained from Data BC's Geographic Warehouse using the BC Data Catalogue[3] and the Government of Canada's Open Government Portal[4] in order to identify the relevant geographic datasets from different groups of categories, including but not limited to the following:

- BC Flood response Debris Assessment Points as provided by GeoBC;
- Aquatic and terrestrial ecology information obtained from the following sources:
  - Known BC Fish Observations and Distributions available at: Known BC Fish Observations and Distributions
  - Fish Information Summary Systems available at: FISS
  - BC Historical Fish Distributions data catalogue available at: BC Historical Fish Distributions
  - The BC Habitat Wizard available at: BC Habitat Wizard
  - The Pacific Salmon Foundation Salmon Watersheds Program available at: Salmon Watersheds
  - The Government of Canada's Critical Habitat of Species at Risk database available at: Critical Habitat of Species at Risk
  - The BC Approved Fisheries Sensitive Watersheds database available at: BC Approved Sensitive Watersheds Database
  - The Fisheries Inventory Data Queries available at: FIDQ
  - The BC Ecological Report Catalogue available at: EcoCat
  - Provincial fish ranges obtained from: Provincial Fish Ranges
  - The BC Conservation Data Centre database for species and ecosystems at risk available at: BC CDC
  - The Department of Fisheries and Oceans Canada database of recreational fisheries available at: DFO Recreational Fisheries

[3] BC Data Catalogue: https://catalogue.data.gov.bc.ca/datasets
[4] Open Government Portal: https://open.canada.ca/en

- Water Management information obtained from the following sources:
  - Freshwater Atlas available at: BC Freshwater Atlas
  - Licensed Springs available at: Licensed Springs
  - BC Water Quality Stations available at: Water Quality Stations Layer
  - Drinking Water Sources (Surface Water) available at: BC Points of Diversion
  - Sensitive Streams and Protected Rivers available at: Water Resource Management Locations - Sensitive Streams and Protected Rivers
  - Public Water Rights Licences available at: Water Rights Licences
- Base Map Data information obtained from the following sources:
  - BC Indian Reserves and Band Names available at: Indian Reserves and Band Names
  - Digital Road Atlas available at: Digital Road Atlas
  - ParcelMap BC available at: ParcelMap BC Parcel Fabric - Datasets - Data Catalogue
  - Topographic contours available at: TRIM Contour Lines

Many of these layers are also included in iMapBC[5], which was accessed and utilized for analytical and visual purposes. After compiling the available data, a number of sampling locations were proposed along the Nicola and Coldwater rivers and submitted to ENV for review and comment. Criteria used by SNC-Lavalin for identifying potential sampling locations included:

- Areas of previously documented sediment and/or debris deposition following the November 2021 flood events;
- Areas along the Nicola and Coldwater rivers within the Program area that appear to be used for recreational activities (e.g., at or adjacent to campgrounds, parklands, etc.);
- Areas with documented information on noted community concerns related to ecological, recreational and human health including use of fishing grounds, use of water resources (e.g., as a potable water intakes or for agricultural use) and areas used for cultural or traditional use purposes;
- Areas that may be important for sensitive life stages of salmon (e.g., spawning, rearing grounds), and/or other *Species at Risk Act*[6] (SARA) listed species;
- Areas proximate to Indigenous and other communities; and
- Areas with identified stations in provincial/federal Environmental Monitoring System (EMS) and the Canada-BC Water Quality Monitoring Program, such that baseline (pre-flood) data were available within the watercourses.

After review, ENV made suggestions and refinements to the proposed sampling locations. Final sampling locations were selected based on potentially sensitive areas related to human health, aquatic ecological health, and other identified community concerns; the total number of sediment and surface water sample sites is provided in Table A.

[5] Government of British Columbia. 2018. iMapBC Public Mapping Application. Available at: iMAPBC [Accessed January 2023].
[6] *Species at Risk Act* (SARA), S.C. 2002, c. 29, last amended on February 3, 2022. Government of Canada.

Priority PCOCs identified in sediment and surface water include microbiological parameters (total and fecal coliforms, *Escherichia coli [E. coli]*), and metals. Following the completion of the PCSM and PRRA, priority PCOCs were identified as those that have the highest potential to cause risk to human health and the environment, have numerous and wide scale sources, and/or are persistent in the environment. Other PCOCs and parameters were not considered "priority" as they are limited by available sources or are not persistent in the environment. Nevertheless, for completeness and to ensure that all PCOCs were evaluated, analysis for the other PCOCs and select physical parameters was conducted as a conservative measure.

Sediment and/or surface water samples were collected from a total of 23 locations. The table below indicates the number of samples submitted for various PCOCs. Parameters chosen for analysis at each location were based on the priority PCOCs identified by SNC-Lavalin in the PCSM and review of activities/sources present in the surrounding area.

Table A: Analytical Plan for Sediment and Surface Water Testing

Priority Contaminants	Sediment Total No. of Locations Sampled (No. of Duplicates)	Surface Water Total No. of Locations Sampled (No. of Duplicates)
Total metals	22 (2)	13 (2)
Dissolved metals	n/a	13 (2)
Microbiological parameters (Escherichia coli [*E. coli*], total coliforms, fecal coliforms)[a]	10 (2)	12 (2)
Other Contaminants and Physical Parameters		
Extractable Petroleum Hydrocarbons (EPH)	13 (2)	13 (2)
Polycyclic aromatic hydrocarbons (PAH)	8 (2)	8 (2)
Volatile Organic Compounds (VOC)	3 (1)	2 (1)
Polychlorinated Biphenyls (PCB)	3 (2)	n/a
Chlorinated Phenols	2 (2)	3 (2)
Pesticides (acid herbicides, organochlorine pesticides, and organophosphorous pesticides)	7 (2)	5 (2)
Total organic carbon (TOC)	23 (2)	13 (2)
Dissolved organic carbon (DOC), total dissolved solids (TDS), total suspended solids (TSS)	n/a	14 (2)
Inorganics (nitrate, nitrite, ammonium, phosphate, phosphorus, sulfate)	n/a	5 (2)
Grain size	23 (2)	n/a

n/a – analysis is not applicable to the sample medium.

a It should be noted that microbiological indicator parameters (fecal coliforms, total coliforms and *E. coli*) are used by regulatory agencies as indicators of the potential for microbiological contamination; however, they are also ubiquitous in the environment at variable concentrations (Health Canada, 2020)[7].

[7] Health Canada. 2020. Guidelines for Canadian Drinking Water. Guideline Technical Document, Total Coliforms. June 2020.

2 Regulatory Context

Sediment and surface water analytical results were compared to the following guidelines and standards:

- *Canadian Environmental Quality Guidelines* (CEQG), Canadian Council of Ministers of the Environment (CCME), Winnipeg, MB, including updates to 2022;
- *Guidelines for Canadian Drinking Water Quality* (GCDWQ), Health Canada, 2022;
- *Guidelines for Canadian Recreational Water Quality: Third Edition* (GCRWQ), Health Canada, 2012, which also includes;
  - *Guidelines for Canadian Recreational Water Quality: Physical, Aesthetic and Chemical Characteristics*, Health Canada, 2022;
- *Contaminated Sites Regulation* (CSR), B.C. Reg. 375/96, includes amendments up to B.C. Reg. 179/2021, Ministry of Environment and Climate Change Strategy, July 7, 2021; and
- *British Columbia Approved Water Quality Guidelines, includes Working Water Quality Guidelines for BC* (BCWQG). British Columbia Ministry of Environment and Climate Change Strategy, updated December 2021.

2.1 Sediment

The CEQG Probable Effects Level (PEL) was the primary comparison criteria for river sediment samples. The CEQG PELs represent sediment concentrations above which adverse effects are expected to occur. Analytical results were also compared to the CEQG Interim Sediment Quality Guidelines (ISQG). The CEQG ISQG values are considered conservative as adverse effects are rarely expected at the ISQG concentrations.

Lastly, Schedule 3.4 of the CSR outlines numerical sediment standards and includes two potential freshwater sediment standard classes. The first (default) class is for “sensitive sediment use” which includes aquatic sites that provide habitat for sensitive biological components (e.g., phytoplankton, zooplankton, benthos, macrophytes and fish), as well as watercourses that contribute to the preservation of this habitat. The second class is “typical sediment use,” which is defined as “not a sensitive sediment use.” For the purposes of this investigation, the CSR sensitive freshwater sediment standards (SEDQSS) were used for comparative purposes.

In addition to the above, CSR residential direct contact soil standards derived to be protective of human health are recommended by ENV (2021)[8] for application to sediment, given the lack of sediment standards protective of human health.

2.2 Surface Water

The Nicola and Coldwater rivers are important fish-bearing freshwater systems. The CEQG and BCWQG for freshwater aquatic life apply to surface water for protection of freshwater aquatic life. The GCDWQ, GCRWQ, and the BCWQG for wildlife, irrigation, and livestock watering were also applied due to the nature of land use in the area.

[8] BC ENV. 2021b. Protocol 1: Detailed Risk Assessment. Version 3.0. May 13, 2021.

Surface water samples were compared to long-term chronic and short-term acute BCWQG and CEQG. Long-term chronic guidelines (based on average exposures) are the most stringent and are intended to protect the most sensitive species during indefinite exposures. Short-term acute guidelines (based on maximum exposures) protect the most sensitive species against severe effects within a defined window of time. As per the BCWQG, dissolved copper guidelines were derived using the Biotic Ligand Model and are included in the analytical tables (Attachment 3).

The GCDWQ for some parameters include an aesthetic objective based on taste and odour considerations and/or an operational guidance value based on treatment system considerations. The aesthetic objectives and operational guidance values have not been applied in this study. However, the maximum acceptable concentrations, which are protective of human health (i.e., are health-based) have been applied, if available.

The GCRWQ consider human health risks for both primary contact activities (i.e., swimming, waterskiing) and secondary contact activities (i.e., boating, fishing), where applicable. The GCRWQ referenced in this report are protective of primary contact activities.

3 Methodology

SNC-Lavalin prepared execution plans for the Program, which included the identification of the proposed sampling locations as per Section 1.1 above. On October 16, 2022, PricewaterhouseCoopers LLP, on behalf of ENV, provided a copy of the execution plan to several First Nations including the Lower Nicola Indian Band, Shackan Indian Band, Nooaitch Indian Band, Cook's Ferry Indian Band, and the Coldwater Indian Band. The First Nations were invited to review and provide input on the execution plans. At the request of the Coldwater Indian Band, the execution plan was also provided to the Scw'exmx Tribal Council. We understand that Shackan Indian Band provided the plan to their consultant, Urban Systems Ltd. Through communications with the First Nations, two additional sampling locations were identified on the Nicola River, and added to the field program (CC1-2 and CC1-3 in Table B below). No other comments were received.

Between October 18 and 21, 2022, sediment and surface water samples were collected for analytical testing from 13 identified locations on the Nicola River (HH1 / EH1 / CC1 locations) and 10 locations on the Coldwater River (HH2 / EH2 / CC2 locations) as summarized in Table B and Table C below and shown on the attached drawings (Attachment 1). Note that one proposed location on Coldwater IR #1 (location HH2-3 in Table C below) was not sampled, as permission to access areas through Reserve lands was not provided before the close of the field program.

Table B: Sampling Locations – Nicola River (Merritt to Spences Bridge)

Sample Location ID	Sample Types[1,2]	Sample IDs	Comments / Rationale	Analyses[3]	Drawing Reference
Human Health (HH) assessment					
HH1-1	SED	SED22-HH1-1 / SED22-A	Located within Nicola Mameet IR 1, outside of Merritt, just upstream of Shulus.	Total metals, TOC, Microbiological parameters, EPH, PAH, VOCs, Pesticides, PCB, Chlorinated phenols, Grain size	690667-WC1-107
	SW	SW22-HH1-1-221020 / SW22-A-221020		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH, PAH, VOCs, Inorganics, Pesticides, Chlorinated phenols	
HH1-2	SED	SED22-HH1-2	Near town of Canford and residential properties, adjacent to Sunshine Valley Rd. bridge. A number of water licences are listed in the area.	Total metals, TOC, Microbiological parameters, EPH, Grain size	690667-WC1-106
	SW	SW22-HH1-2-221020		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH	
HH1-3	SED	SED22-HH1-3	Located just upstream of the N'Kwala Recreation site, within Nooaitch IR 10. Located in an area with multiple debris observations.	Total metals, TOC, Microbiological parameters, Grain size	690667-WC1-105
	SW	SW22-HH1-3-221021		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters	
HH1-4	SED	SED22-HH1-4	Near small development within Shackan IR 11. Adjacent to debris observation location (including a vehicle). Upstream of EMS location (BC ENV ID E273528).	Total metals, TOC, Microbiological parameters, EPH, PAH, Pesticides, Grain size	690667-WC1-104
	SW	SW22-HH1-4-221020		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH, PAH, Inorganics, Pesticides	
HH1-5	SED	SED22-HH1-5	Adjacent to Kumcheen IR 1, and last location before entering the Thompson River at Spences Bridge. Also adjacent to EMS location (BC EMS ID: E216848).	Total metals, TOC, Microbiological parameters, Grain size	690667-WC1-102
	SW	SW22-HH1-5-221021		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters	

Table B (Cont'd): Sampling Locations – Nicola River (Merritt to Spences Bridge)

Sample Location ID	Sample Types[1,2]	Sample IDs	Comments / Rationale	Analyses[3]	Drawing Reference
Community Concern (CC) assessment					
CC1-1	SED	SED22-CC1-1	Adjacent to Kumcheen IR 1, to address documented community concern. Large deposition of debris and sediment was identified where the Nicola River meets the Thompson River. Area was identified for traditional use (particularly fishing) for Cook's Ferry and Nicomen Indian Bands.	Total metals, TOC, Microbiological parameters, EPH, PAH, Pesticides, Grain size	690667-WC1-102
	SW	SW22-CC1-1-221021		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH, PAH, Inorganics, Pesticides	
CC1-2	SED	SED22-CC1-2	New location of concern identified within Nicola Mameet IR 1, at location of observed sheen on surface waters.	TOC, EPH, PAH, Grain size	690667-WC1-107
	SW	SW22-CC1-2-221020		TOC, DOC, TDS, TSS, EPH, PAH	
CC1-3	SED	SED22-CC1-3	New location of concern identified in the Clapperton area, where sheen was observed on surface water, and equipment (mini dozer) and a few drums were identified approximately 70 m from the water course.	Total metals, TOC, EPH, PAH, VOCs, Grain size	690667-WC1-103
	SW	SW22-CC1-3-221021		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, EPH, PAH, VOCs	
Ecological Health (EH) assessment					
EH1-1	SED	SED22-EH1-1	Outlet of a Sensitive Fisheries Watershed (Coldwater River) and utilized for spawning for Chinook, Coho. Near several EMS locations.	Total metals, TOC, EPH, PAH, Pesticides, Grain size	690667-WC1-108
	SW	SW22-EH1-1-221019		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH, PAH, Inorganics	
EH1-2	SED	SED22-EH1-2	Outlet of a Fisheries Sensitive Watershed (Spius Creek), Chinook, Coho, Pink, Steelhead holding and spawning location.	Total metals, TOC, EPH, PCB, Grain size	690667-WC1-106
	SW	SW22-EH1-2-221021		EPH	
EH1-3	SED	SED22-EH1-3	Historical spawning location for Coho and Chinook. Located within Nooaitch IR 10.	Total metals, TOC, Grain size	690667-WC1-105

Table B (Cont'd): Sampling Locations – Nicola River (Merritt to Spences Bridge)

Sample Location ID	Sample Types[1,2]	Sample IDs	Comments / Rationale	Analyses[3]	Drawing Reference
EH1-4	SED	SED22-EH1-4	Holding pool for Coho and Chinook migrating into Skuhun Creek. Near multiple debris observation locations. Located within Shackan IR 11.	Total metals, TOC, Grain size	690667-WC1-104
EH1-5	SED	SED22-EH1-5	Major spawning area for all species of Pacific Salmon, Steelhead, and Kokanee.	Total metals, TOC, EPH, Grain size	690667-WC1-102
	SW	SW22-EH1-5-22121		EPH	

SW = Surface Water SED = Sediment

1 Field measurements of pH, conductivity, temperature, and dissolved oxygen were collected in surface water at all locations.
2 Surface water samples were not collected at all EH locations as the PCSM/PRRA identified sediment to be the main concern as contaminants would tend to accumulate in sediments and therefore be a driver of risks vs. surface water.
3 Acronyms are defined in Table A.

Table C: Sampling Locations – Coldwater River (Merritt to Juliet Drive Junction)

Sample Location ID	Sample Types[1,2]	Sample IDs	Comments / Rationale	Analyses[3]	Drawing Reference
Human Health (HH) assessment					
HH2-1	SED	SED22-HH2-1 / SED22-B	Located in Merritt, adjacent to RV park, near identified debris observation locations. Adjacent to EMS location (BC ENV ID: E206272).	Total metals, TOC, Microbiological parameters, EPH, PAH, Pesticides, PCB, Chlorinated phenols, Grain size	690667-WC2-102
	SW	SW22-HH2-1-221018 / SW22-B-221018		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH, PAH, Inorganics, Pesticides, Chlorinated phenols	
HH2-2	SED	SED22-HH2-2	Adjacent to music festival location. Near multiple debris observation locations.	Total metals, TOC, Microbiological parameters, EPH, PAH, VOCs, Grain size	690667-WC2-102
	SW	SW22-HH2-2-221018		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH, PAH, Chlorinated phenols	
HH2-3 (not accessible)	n/a	n/a	Access permission was not granted in time for sampling event. Within Coldwater IR 1, Near multiple debris observation locations. Approximately 400 m from Kettle Valley Rail Trail. Near EMS location (BC ENV ID: E324071).	n/a	690667-WC2-103
HH2-4	SED	SED22-HH2-4	Location adjacent to Paul's Basin IR 2, and near the Kettle Valley Rail Trail. Adjacent to multiple debris depositions.	Total metals, TOC, Microbiological parameters, EPH, Grain size	690667-WC2-104
	SW	SW22-HH2-4-221018		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters, EPH	

Table C (Cont'd): Sampling Locations – Coldwater River (Merritt to Juliet Drive Junction)

Sample Location ID	Sample Types[1,2]	Sample IDs	Comments / Rationale	Analyses[3]	Drawing Reference
HH2-5	SED	SED22-HH2-5	At Juliet Junction, before Coldwater River enters the provincial park. Located downstream from and adjacent to debris observation locations.	Total metals, TOC, Microbiological parameters, Grain size	690667-WC2-108
	SW	SW22-HH2-5-221019		Total metals, Dissolved metals, TDS, TSS, Microbiological parameters	
Community Concern (CC) assessment					
CC2-1	SED	SED22-CC2-1	Placed to address a community concern – the Coldwater Indian Band identified significant sedimentation at this confluence. Concerns about turbidity and fish migration.	Total metals, TOC, Grain size	690667-WC2-106
	SW	SW22-CC2-1-221019		Total metals, Dissolved metals, TOC, DOC, TDS, TSS, Microbiological parameters	
Ecological Health (EH) assessment					
EH2-1	SED	SED22-EH2-1	Historically utilized by several species of Pacific Salmon. Overlaps critical habitat for 2 SARA species. Near multiple debris observation locations.	Total metals, TOC, Grain size	690667-WC2-102
EH2-2	SED	SED22-EH2-2	Historical major salmonid spawning location.	Total metals, TOC, Pesticides, Grain size	690667-WC2-107
EH2-3	SED	SED22-EH2-3	Holding, spawning, and rearing location for Coho, Chinook, and Steelhead. Near debris observation locations, and between EMS locations (BC ENV IDs E316050 and E316030). Adjacent to Paul's Basin IR 2.	Total metals, TOC, EPH, Grain size	690667-WC2-104
	SW	SW22-EH2-3-221018		EPH	

Table C (Cont'd): Sampling Locations – Coldwater River (Merritt to Juliet Drive Junction)

Sample Location ID	Sample Types[1,2]	Sample IDs	Comments / Rationale	Analyses[3]	Drawing Reference
EH2-4	SED	SED22-EH2-4	Holding and spawning location for Coho and Steelhead/Rainbow Trout. Near debris observation locations at Kingsvale, near EMS location (BC ENV ID E206127).	Total metals, TOC, Pesticides, Grain size	690667-WC2-105
	SW	SW22-EH2-4-221019		Pesticides	
EH2-5	SED	SED22-EH2-5	Historical spawning location for Coho, Chinook, and Rainbow Trout/Steelhead.	Total metals, TOC, Grain size	690667-WC2-108

SW = Surface Water SED = Sediment

1 Field measurements of pH, conductivity, temperature, and dissolved oxygen were collected in surface water at all locations.
2 Surface water samples were not collected at all EH locations as the PCSM/PRRA identified sediment to be the main concern as contaminants would tend to accumulate in sediments and therefore be a driver of risks vs. surface water.
3 Acronyms are defined in Table A.

Where provincial data repository EMS IDs were not already established, new EMS IDs were created by ENV prior to sampling, using approximate coordinates of the proposed locations. Sample locations were surveyed by SNC-Lavalin staff using a handheld submeter GIS receiver to determine the spatial coordinates of sampling locations. These coordinates were provided to ENV to update the newly created locations on EMS as needed.

All work was completed in general accordance with applicable federal and/or provincial guidance including the BC Field Sampling Manual[9]; BC Environmental Laboratory Manual[10]; and the CCME Protocols Manual for Water Quality Sampling in Canada[11], as well as SNC-Lavalin's preferred operating procedures. Specifically:

- Sediment and surface water samples were collected near the shoreline, rather than mid-channel, to target areas of sediment and debris deposition from the flood. Care was taken to collect sediment samples in areas of river deposition rather than material utilized in road repairs, which were ongoing on Highway 8 (i.e., along the Nicola River) at the time of the work.
- Although typically not a concern in a large water system with dispersed sampling locations, as per best management practices, and subject to access permissions and availability of personnel, sampling was generally conducted from downstream to upstream to minimize sediment transport into samples.
- Where possible, surface water samples were collected in low energy parts of the river where the suspended solids were anticipated to be low since higher content of suspended solids can positively bias the concentrations of total metals and PAHs in the samples. Total metals and PAH concentrations related to the suspended sediments in surface water samples are less representative of the bioavailable fraction. Given that both sediment and surface water samples were collected from most locations, sediment samples were representative of these contaminants adsorbed to sediment.
- Field monitoring instruments were calibrated according to equipment manuals prior to monitoring. All equipment (electronic probes/meters) was decontaminated using a phosphate free detergent solution prior to each measurement to minimize the potential for cross-contamination.
- Measurements of pH, conductivity, dissolved oxygen, and temperature were collected at each location using a handheld water quality meter (YSI).
- Surface water samples were collected directly from the river using a pole sampler (Wheaton), either by submerging the laboratory-supplied container directly into the water or by collecting the water in a larger container and transferring to the laboratory-supplied containers. Samples were collected from approximately 0.1 m below the water surface to avoid floating debris. Dissolved metal samples were field filtered using a syringe and 0.45 µm membrane during sample collection.

[9] BC ENV, 2013. BC Field Sampling Manual. Part E: Water and Wastewater Sampling / Ambient Freshwater and Effluent Sampling. https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-field-sampling-manual

[10] Austin, Joyce. (editor). 2020. *British Columbia Environmental Laboratory Manual.* Analysis, Reporting and Knowledge Services, Knowledge Management Branch, B.C. Ministry of Environment and Climate Change Strategy, Victoria, BC. https://www2.gov.bc.ca/gov/content/environment/research-monitoring-reporting/monitoring/laboratory-standards-quality-assurance/bc-environmental-laboratory-manual

[11] Canadian Council of Ministers of the Environment (CCME), 2011. *Protocols Manual for Water Quality Sampling in Canada*. https://ccme.ca/en/res/protocolsdocument_e_-final1.0.pdf

- Where both surface water and sediment samples were collected at the same sampling location, the surface water samples were collected first to avoid disturbing sediments and causing turbidity.
- Sediment samples were collected by hand (i.e., trowel), within approximately 0.2 m of ground surface and on the river bed, just above the water line. Sediment sample characteristics were logged for general grain size, colour, texture, moisture content and apparent anthropogenic impacts (if observed).
- All samples were immediately placed in laboratory-supplied containers with the appropriate preservatives (where applicable) and transferred to an ice-chilled cooler.
- The target rate for the collection of blind field duplicate samples was 10% (i.e., 1 duplicate for every 10 samples collected). Duplicate samples were collected to ensure that one duplicate was collected from each of the two different reaches. Duplicate samples were collected from the same layer(s) and material within the sampling location and confirmed in the field to be consistent in observable criteria (e.g., lithology, colour, grain size, moisture). However, as natural materials are not isotropic, some heterogeneity is anticipated.
- All samples were stored in ice-chilled coolers and were transported to the laboratory for analysis under chain-of-custody control.

Samples were transported daily to CARO Analytical Services (CARO) in Kelowna, BC, for laboratory analysis, as some analytes have a very short (24 hour) hold time. Parameters chosen for analysis at each sampling location were based on potential sources of PCOCs, land use in the surrounding area, and debris observations.

Flood recovery and clean-up efforts in the Merritt area were ongoing at the time of this sampling program. BNC Industrial Contracting Services Ltd. (BNC) of Vernon BC, were managing and coordinating some of these programs in Merritt on behalf of the Province. BNC assisted SNC-Lavalin with obtaining access to sample locations, planning, and scheduling the field program. The majority of sample locations were accessed by vehicle / on foot; however, three sample locations (HH1-1, HH1-2, CC1-2) within Lower Nicola Indian Band (LNIB) Nicola Mameet IR #1 were accessed using a helicopter contracted by BNC. A Land Access Request was submitted to LNIB, for permission to access sampling locations on the Nicola River through Reserve lands. Signed approval was not received in time for the October sampling program; however, the LNIB provided verbal authorization to allow the helicopter to land on sandbars within the river. Due to road conditions and construction on Highway 8, the helicopter was also used on the final day of sampling (to access location CC1-3) to expedite the completion of the sampling, and thereby provide time to get the samples to the laboratory within the holding time specified for microbiological analyses.

Cultural monitoring support for SNC-Lavalin's field program was coordinated by BNC and the Coastal Restoration Society, in conjunction with other ongoing projects in the Merritt area. A Cultural Monitor was present on site with SNC-Lavalin staff throughout completion of all sampling activities.

4 Results

4.1 Physical Conditions

Conditions during sampling (October 18 - 21, 2022) were generally sunny and 10°C to 15°C during the first two days, becoming cloudy with rain and cool temperatures (5°C to 10°C) by the end of the week. Real-time hydrometric data were obtained for the nearest Environment Canada[12], hydrometric station established at Merritt (08LG010 – Coldwater River at Merritt), near the confluence of the Coldwater and Nicola rivers. Data recorded during the November 2021 flood event and the October 2022 sampling event are summarized below.

Table D: River Conditions During November 2021 Flood Event and October 2022 Sampling Event

River (Hydrometric Station)	Variable	November 2021 Flood	October 2022 Sampling
Coldwater River at Merritt	Water Level (m assumed datum)[a]	3.5	0.81
(08LG010)	Discharge Rate (m^3/s)	324	0.53

[a] assumed datum is an arbitrary local coordinate system. To convert to Canadian geodetic vertical datum, add 587.049 m.

As indicated in the table above, the water level was approximately 2.7 m lower in October 2022 than during peak flood conditions in November 2021, and river discharge rates were approximately three orders of magnitude lower in October 2022. River levels and discharge rates measured at 08LG010 in October 2022 were within the range of median values measured in the same time period in previous years.

Photographs of sampling locations are provided in Attachment 2 and field monitoring results are recorded in the monitoring report contained in Attachment 4.

4.2 Analytical

Detailed analytical results for sediment and surface water samples are presented on the attached Tables 1 to 18 (Attachment 3). Copies of the laboratory reports are provided in Attachment 5. All analytical results will be uploaded to the provincial data repository EMS.

4.2.1 Sediment

Sediment samples were collected from each of the 23 sampling locations and submitted for the analyses summarized in Table A. Concentrations of all PCOCs were less than the applied federal and provincial standards/guidelines including for metals, EPH, PAH, VOCs, pesticides, chlorinated phenols, and PCB. There are no existing standards/guidelines for microbiological parameters or EPH in sediment; however, they were detected at select locations.

4.2.1.1 Metals and Inorganics

Analytical results for sediment indicate that concentrations of metals and inorganic parameters were all less than the CEQG ISQG and PEL guidelines, as well as the CSR SEDQSS standards.

[12] Environment and Climate Change Canada, 2022. Real-Time Hydrometric Data Graph for Coldwater River at Merritt BC (08LG010). Accessed at: https://wateroffice.ec.gc.ca/report/real_time_e.html?stn=08LG010

4.2.1.2 Microbiological Parameters

There are no federal or provincial standards/guidelines for the analyzed microbiological parameters in sediment. Concentrations of these parameters are summarized as follows:

Nicola River

- Total coliforms: concentrations were detected at 4 of the 6 locations analyzed, ranging from 4.5 most probable number per gram (MPN/g) (HH1-1; no detectable concentration in the duplicate sample), to 5,700 MPN/g (HH1-5). Concentrations were below the laboratory method detection limit (MDL) in 2 locations (HH1-2 and HH1-3).
- Fecal coliforms: concentrations were detected at 3 of the 6 locations, ranging from 4.5 MPN/g (HH1-1; no detectable concentration in the duplicate sample), to 90 MPN/g (HH1-5). Concentrations were below the laboratory method detection limit (MDL) at the remaining 3 locations (HH1-2, HH1-3, and CC1-1).
- *E. coli*: concentrations were detected at 3 of the 6 locations analyzed, ranging from 4.5 MPN/g (HH1-1; no detectable concentration in the duplicate sample), to 90 MPN/g (HH1-5). Concentrations were below the laboratory MDL at the remaining 3 locations (HH1-2, HH1-3, and CC1-1).

The maximum concentrations of the microbiological parameters were measured at HH1-5, which is located downstream of the residential area on Kumcheen IR 1, adjacent to the Hwy 8 bridge and the Chief Tetlinitsa Amphitheatre.

Coldwater River

- Total coliforms: concentrations were detected at 2 of the 4 locations analyzed; 29 MPN/g (HH2-1; no detectable concentration in the duplicate sample), and 16 MPN/g (HH2-2). Concentrations were below the laboratory MDL in the two other locations (HH2-4, HH2-5).
- Fecal coliforms: concentrations were below the laboratory MDL at all 4 locations analyzed.
- *E. coli*: concentrations were below the laboratory MDL at all 4 locations analyzed.

The maximum concentrations of the microbiological parameters were measured at HH2-1, which is located within the City of Merritt, upstream of the Claybanks Park Bridge.

4.2.1.3 Hydrocarbon Parameters

Concentrations of the hydrocarbon parameters analysed for in sediment were all less than laboratory MDL, with the exception of benzene (0.032 µg/g), and EPH (C_{19}-C_{32}) / HEPH at location CC1-3 (66 µg/g) which slightly exceeded the MDL. The MDLs for benzene and EPH (C_{19}-C_{32}) / HEPH are 0.03 µg/g and 50 µg/g, respectively. There are no federal or provincial standards/guidelines for these parameters in sediment; however, the measured concentrations were below the lowest CSR soil standards of 0.035 µg/g for benzene, and 1,000 µg/g for EPH (C_{19}-C_{32}) / HEPH.

Further, while benzene and EPH (C_{19}-C_{32}) / HEPH were detected above the laboratory MDLs, which are the lowest concentrations that the laboratory can detect using the analytical method, they are well below the laboratory practical quantification limits, which are 5x's the MDL and are defined as the level at which the laboratory has confidence in what they are detecting and measuring, and that the detection is not a laboratory anomaly.

As noted in Table B, location CC1-3 was added to the sampling program based on community concern regarding observed sheen on surface water and the presence of equipment (mini dozer) and drums in the vicinity. Based on an environmental monitoring site report completed by Coastal Restoration Society in May 2022 during debris removal activities, field testing on the observed sheen indicated that it was likely naturally occurring and not associated with hydrocarbons. Further, given that the mini dozer and drums were located approximately 70 m from the river, it is considered unlikely that they are the source of the detected benzene and EPH (C_{19}-C_{32}) / HEPH.

4.2.2 Surface Water

Surface water samples were collected from 11 locations on the Nicola River, and 7 sampling locations on the Coldwater River, and submitted for the analyses summarized in Table A. Concentrations of all PCOCs, except turbidity, select metals, and *E. coli*, were less than the applied federal and provincial guidelines.

Pesticides were analyzed to assess the potential impacts from flood-induced agricultural runoff in the Merritt area. Concentrations of all pesticide parameters were less than laboratory MDL; however, it is noted that the laboratory MDLs for some select parameters were greater than the applied guidelines.

The samples with metals and/or *E. coli* concentrations greater than the respective applied guidelines are summarized in Table E below and discussed in the sections following; it is noted that samples without exceedances (i.e., CC2-1 and HH2-5) are not included in the table.

In addition, a discussion of the physical parameters measured at each sample location, including turbidity, follows the discussion of the metals and the microbiological parameter results.

Table E: Summary of Surface Water Exceedances and Guideline Exceeded

Sample Location ID	Total Aluminum (mg/L)	*E. coli* (MPN/100 mL)
Nicola River		
HH1-1 / Duplicate 22-A	0.0692 / 0.0716	**26 / 23**
HH1-2	0.0231	**14**
HH1-3	0.0476	**22**
HH1-4	**0.265**	**5**
HH1-5	**0.203**	**11**
CC1-1	**0.191**	**16**
CC1-3	**0.196**	-
EH1-1	0.0827	**28**

Table E (Cont'd): Summary of Surface Water Exceedances and Guideline Exceeded

Sample Location ID	Total Aluminum (mg/L)	*E. coli* (MPN/100 mL)
Coldwater River		
HH2-1 / Duplicate 22-B	0.0133 / 0.0150	**8 / 8**
HH2-2	0.0114	**9**
HH2-4	0.0100	**1**
Applied Guidelines		
BCWQG chronic long-term AW	n/a	n/a
BCWQG acute short-term AW	n/a	n/a
CEQG AW	0.1 (pH>=6.5)[b]	n/a
GCDWQ	2.9	< 1[c]

[a] Guideline varies with hardness concentrations.

[b] Long-term guideline, does not directly apply to a single sampling event but has been applied as no short-term guideline exists.

[c] Guideline is intended to detect breach in treatment/distribution systems or contamination of groundwater.

Italic – Concentration exceeds BCWQG AW.
Underline – Concentration exceeds CEQG AW.
Outline – Concentration exceeds GCDWQ.

Further to the summary presented in Table E, Table F summarizes the exceeding parameter, number of sample locations where exceedances occurred, and the various guidelines applied.

Table F: Summary of Exceedances (Parameter and No. of Sample Locations)

Parameter	No. of Locations Sampled	No. of Locations Exceeding Applied Guideline						
		BCWQG AW	BCWQG IW	BCWQG LW	BCWQG WL	CEQG AW	GCDWQ	GCRQ
Total Aluminum	13	n/a	0	0	0	4	0	n/a
E. coli	12	n/a	0	0	n/a	n/a	10	0

n/a – guideline does not exist
AW – aquatic life; IW – irrigation water; LW – livestock water; WW – wildlife

4.2.2.1 Metals and Inorganics

As indicated in Table F, total aluminum exceeded the federal aquatic life guideline at four sample locations tested.

Concentrations of all other metals and inorganic parameters analyzed were less than the applied guidelines, in all samples.

4.2.2.2 Microbiological Parameters

As noted in Table F, concentrations of *E. coli* in select surface water samples were greater than the federal drinking water guidelines. Total coliforms and fecal coliforms were detected in all samples analyzed, as summarized below; however, there are only BC irrigation and livestock watering guidelines for fecal coliforms which were not exceeded. The following is a summary of microbiological parameters measured in the surface water samples:

Nicola River

- Total coliforms: concentrations were detected at all 7 locations analyzed, ranging from 345 MPN/100 mL (HH1-5) to 921 MPN/100 mL (EH1-1).
- Fecal coliforms: concentrations were detected in all samples analyzed, ranging from 8 MPN/100 mL (HH1-4), to 49 MPN/100 mL (EH1-1).
- *E. coli*: concentrations were also detected at all 7 locations analyzed, ranging from 5 MPN/100 mL (HH1-4), to 28 MPN/100 mL (EH1-1). All detectable concentrations exceeded the GCDWQ but were less than the GCRWQ single sample maximum concentration guideline and the BCWQG for irrigation and livestock watering.

The maximum concentrations of the microbiological parameters were measured at EH1-1, which is located at the west end of Merritt, downstream of the confluence of the Nicola and Coldwater rivers, and near the City's sewage treatment plant.

Coldwater River

- Total coliforms: concentrations were detected at all 5 locations analyzed, ranging from 225 MPN/100 mL (HH2-5) to 727 MPN/100 mL (duplicate sample at HH2-1).
- Fecal coliforms: concentrations were detected in all samples analyzed except HH2-5, ranging from 1 MPN/100 mL (HH2-4), to 9 MPN/100 mL (HH2-2).
- *E. coli*: concentrations were detected in samples from locations HH2-1 (8MPN/100 mL) and HH2-2 (9 MPN/100 mL). Concentrations were less than the laboratory MDL at locations HH2-5 and CC2-1. All detectable concentrations exceeded the GCDWQ but were less than the GCRWQ single sample maximum concentration guideline and the BCWQG for irrigation and livestock watering.

The maximum concentrations of the microbiological parameters were measured at HH2-1, located within Merritt at Claybanks Park Bridge; and HH2-2, which is located upstream of Merritt near the music festival grounds.

4.2.2.3 Hydrocarbon Parameters

Concentrations of the hydrocarbon parameters analyzed in surface water were all less than laboratory MDL. This includes locations CC1-2 and CC1-3, where sheen had previously been observed, and detectable concentrations were identified in sediment samples.

4.2.2.4 Physical Parameters

Field measurements of parameters including pH, conductivity, temperature, and dissolved oxygen were collected at each of the sampling locations. A copy of the field measurements is provided in the monitoring report contained in Attachment 4 with statistics summarized and compared to federal and provincial guidelines for aquatic life (Table G and Table H).

When turbidity results from the laboratory were compared to the federal drinking water guideline of 1 NTU, exceedances were found in five surface water samples.

Other physical parameters were measured in the laboratory and the results are provided in Tables 10 and 11 (Attachment 3). The results of select parameters are provided in Table G and Table H below for the Nicola River and the Coldwater River. It is noted that the dissolved oxygen and pH values were within the guidelines for aquatic life.

Table G: Summary of Physical Parameters Measured at 2022 Surface Water Locations – Nicola River

Parameter	Maximum	Minimum	Average	Median	BCWQG / CEQG AW
Field					
pH	8.85	7.98	8.47	8.48	6.5 – 9.0
Conductivity (µS/cm)	337.5	284.7	313.5	315.4	n/a
Temperature (ºC)	9.8	8.1	8.7	8.6	n/a
Dissolved oxygen (mg/L)	14.4	10.1	12.2	12.4	>= 8
Laboratory					
pH	8.28	7.9	8.1	8.06	6.5 – 9.0
Turbidity (NTU)	3.96	0.65	1.82	1.1	n/a
Total Dissolved Solids (TDS mg/L)	237	170	211	217	n/a
Total Suspended Solids (TSS mg/L)	11	< 2	5.3	3.2	n/a

Table H: Summary of Physical Parameters Measured at 2022 Surface Water Locations – Coldwater River

Parameter	Maximum	Minimum	Average	Median	BCWQG / CEQG AW
Field					
pH	8.57	7.68	8.16	8.21	6.5 – 9.0
Conductivity (µS/cm)	302.7	122.1	220.9	234.3	n/a
Temperature (ºC)	10.5	4.8	7.5	7.2	n/a
Dissolved oxygen (mg/L)	14.1	9.7	12.2	12.5	>= 8

Table H (Cont'd): Summary of Physical Parameters Measured at 2022 Surface Water Locations – Coldwater River

Parameter	Maximum	Minimum	Average	Median	BCWQG / CEQG AW
Laboratory					
pH	8.2	7.62	7.96	8.06	6.5 – 9.0
Turbidity (NTU)	0.19 (only 1 location tested)				n/a
Total Dissolved Solids (TDS mg/L)	168	67	137	144	n/a
Total Suspended Solids (TSS mg/L)	< 2	< 2	< 2	< 2	n/a

4.3 Quality Assurance/Quality Control (QA/QC)

To assess the QA/QC of organic and inorganic analytical results for the blind duplicate sets, SNC-Lavalin calculated the practical quantitation limit (defined as five times the laboratory MDL) and, if appropriate, the relative percent difference (defined as the absolute value of the difference between a sample set divided by the average of the two results). If sample concentrations are less than the practical quantitation limit, relative percent differences are not considered meaningful due to a relative increase in analytical variability at or near detection limits. Therefore, relative percent differences in such scenarios were not calculated.

To assess QA/QC for microbiological results for blind duplicate sets, the data are considered acceptable if the difference between the log value of each result should be within +/- 2.

All relative percent differences were less than SNC-Lavalin's acceptance criteria of 50% for organic and inorganic parameters and were within the acceptance criteria for microbiological parameters.

Sediment and surface water samples were submitted to the laboratory within a maximum of 25 hours of sample collection, in order to allow enough time for analysis of parameters within their required hold times. However, due to a laboratory error, select samples exceeded the hold time for microbiological parameters by a few hours. According to Health Canada's guideline technical document for total coliforms[13], studies on the effects of hold times on coliform counts are limited and contradictory but have indicated that results may be biased low or have no significant change if hold times are exceeded. As such, this creates some uncertainty on the reported results for the following samples:

- Sediment samples at 2 locations HH1-2, and HH1-4 on the Nicola River; and 3 locations HH2-1/SED22-B, HH2-2, and HH2-4 on the Coldwater River; and
- Surface water samples at 2 locations HH2-1/SW22-B, and HH2-4, on the Coldwater River.

However, since the samples were kept below <10 ° C after collection until they reached the laboratory and that they marginally exceeded the recommended hold time, it is our opinion that there would be limited negative bias in the reported results.

[13] Health Canada (2020). *Guidelines for Canadian Drinking Water Quality: Guideline Technical Document – Total coliforms.* Water and Air Quality Bureau, Healthy Environments and Consumer Safety Branch, Health Canada, Ottawa, Ontario.

4.4 Historical Results

A brief desktop search of municipal, regional district (Thompson Nicola Regional District), provincial; and federal websites was carried out to obtain pre-existing sediment or surface water quality data for the Nicola and Coldwater rivers. Several EMS stations were identified along the reaches of both rivers; however, only a few locations had post-2000 analytical data and fewer had data collected in the same season as the Program (October/November). Some EMS stations only had historical (pre-2000) analytical data, no analytical data, or data for only one sampling event or select PCOCs. As such, the available data were limited to surface water, as indicated in the table below.

There is one long-term federal-provincial monitoring station which is also included in the BC EMS program, located on the Nicola River at the mouth (BC08LG0001 / E216848, near Spences Bridge)[14] (referred to herein as EMS Nicola River) where surface water samples have been collected since 1992. SNC-Lavalin sample locations HH1-5 and CC1-1 are in the same vicinity as EMS Nicola River and are the most downstream locations sampled in October 2022.

There were no long-term monitoring stations identified on the Coldwater River. In addition, no historical sediment quality data were available for review for either river.

As summarized in Table I, other EMS locations were available; however, the data were only limited to select parameters and were not available following the November 2021 atmospheric river.

Table I: Summary of EMS Locations with October/November Analytical Data for Parameters of Interest

EMS Station ID / SNC-Lavalin 2022 Location	Location Name	Location	Parameters of Interest Available	Relevant Sampling Period / Dates
Nicola River				
E216848 / BC08LG0001	Nicola River at the Mouth (Spences Bridge) **(EMS Nicola)**	Long-term federal-provincial monitoring station. Sampled at the first bridge on the Nicola River near its confluence with the Thompson River	select metals, turbidity, pH, hardness, microbiological parameters	October 2000 – November 2022 (total metals data collected Aug. 2006 onward)

[14] Canada-B.C. Water Quality Monitoring Program, 2022. Station data for Nicola River at the mouth, near Spences Bridge, BC (BC08LG0001/E216848) – accessed at: Fresh Water Quality Monitoring and Surveillance - Environment and Climate Change Canada (BC08LG0001)

Table I (Cont'd): Summary of EMS Locations with October/November Analytical Data for Parameters of Interest

EMS Station ID / SNC-Lavalin 2022 Location	Location Name	Location	Parameters of Interest Available	Relevant Sampling Period / Dates
Coldwater River				
E206127 / EH2-4	Coldwater River at Kingsvale	Main Coldwater River where the road bridge crosses the river, sample immediately upstream of bridge	select metals, turbidity, pH, hardness	November 2016
E206272 / HH2-1	Coldwater River at Claybanks Park Bridge	Coldwater River immediately downstream of Collett Bridge in Claybanks Park, at Merritt	turbidity	November 2020
E245980 / HH2-4	Coldwater River at Patchett	Sampled off the road that follows the river, 15 km south of the junction of Hwy 5 and Hwy 8	turbidity	October 2001

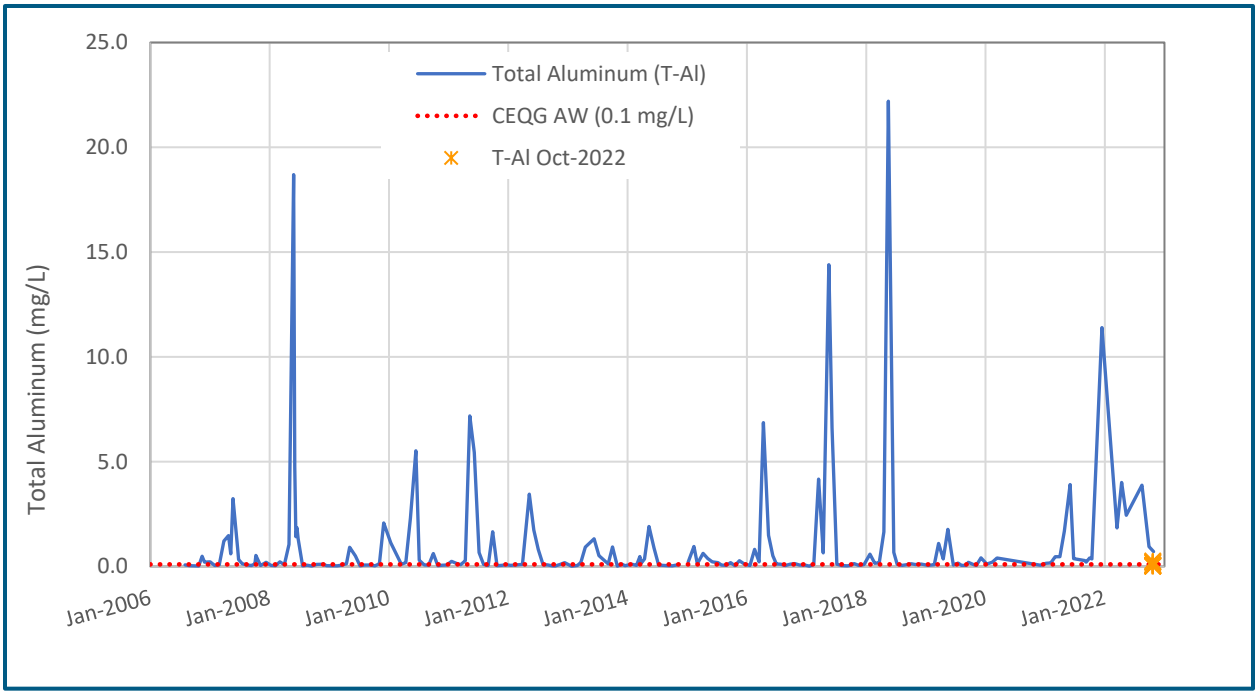
Except for EMS Nicola River (EMS E216848), total metals data were limited to one additional other EMS station located on the Coldwater River for one event, and historical microbiological data were only available for EMS Nicola River. As such, only historical data from EMS Nicola River were used for comparison purposes.

The historical surface water data after 2000, and during October/November obtained from EMS Nicola River included in Table J were used to provide historical baseline (pre-flood) data for comparison to data collected along both waterways during this evaluation program.

As noted, a robust data set was only available for EMS Nicola River, which is near the most downstream locations (HH1-5 and CC1-1) sampled in October 2022. There is the potential that higher concentrations were present at upstream locations during the flood (closer to sources). Despite this, comparison of the October 2022 data from all locations, including those upstream and nearer to potential sources, is considered appropriate for the evaluation of potential long-term and widespread flood-related impacts. Given that the station is downstream of many of the potential sources of contamination identified following the November 2021 flood event, it is considered likely that any widespread impacts from the flood would be captured.

The surface water data collected for total aluminum at EMS Nicola River since 2006 are provided in Figure 1 below to demonstrate the variability observed seasonally. Total aluminum was measured at concentrations greater than the federal surface water quality guidelines for aquatic life (also indicated in the figure below) during the October 2022 sampling program.

Figure 1: Total aluminum concentrations measured in surface water samples from the Nicola River (near Spences Bridge) since 2006 compared to October 2022 results and CEQG AW



The graph shows that the metals concentrations fluctuate seasonally with peaks during spring freshet and lows in late summer to late winter. Mean concentrations have not changed significantly over time. The total aluminum concentrations measured during the October 2022 sampling event were well within these historical concentrations.

4.5 Comparison to Historical Results

Data collected from all sample locations in October 2022 were compared to the historical surface water data collected from 2000 to 2021 at the EMS Nicola River during the same season (the months of October and November). The comparison of the historical data to the October 2022 data for the parameters that exceeded the applicable guidelines is presented in the table below.

Table J: Statistical Summary of Mean Surface Water Concentrations

Parameter	Pre-Flood	Post-Flood	Post-Flood [a]	
	October / November 2000 – 2020 (EMS)	October / November 2022 (EMS)	October 2022 (SNC) Nicola River	October 2022 (SNC) Coldwater River
Turbidity (NTU)	3.1 ± 7.1	8.7 ± 2.9	1.8 ± 1.2	0.2[b]
Hardness, Dissolved (mg/L)	89.6 ± 31.7	159.5 ± 4.9	148.3 ± 11.0	105.2 ± 39.2
Aluminum, Total (mg/L)	0.0808 ± 0.0601	Not tested	0.1349 ± 0.0890	0.0111 ± 0.0018
pH	8.0 ± 0.2	8.4 ± 0	8.5 ± 0.2	8.2 ± 0.4
Fecal Coliforms (CFU/100 mL)	21.0 ± 46.5	8.3 ± 7.1	22.5 ± 13.6	5.0 ± 4.1
E. coli (CFU/100 mL)	19.3 ± 41.8	8.5 ± 4.9	17.2 ± 8.1	6.0 ± 4.4

Notes:
[a] SNC-Lavalin data for October 2022 from all upstream sample locations on Nicola and Coldwater rivers
[b] only one measurement recorded

The data in Table J indicate that PCOC concentrations in samples measured in October 2022 were within the range of the concentrations that were historically measured during the same season at EMS Nicola River. While the mean concentrations for total aluminum measured in the October 2022 waterway evaluation were higher than the historical means in the Nicola River, consideration of the variability in the measured concentrations (as indicated by the standard deviations) indicates that the concentrations are within historical range and are considered likely to be associated with natural variability.

5 Discussion

The Nicola and Coldwater rivers are important freshwater systems. As indicated in ENV's 2022 report[15], ENV is responsible for protecting water quality for human health and aquatic life, and as such, the analytical data collected during the Program were compared to guidelines derived to be protective of these receptors. We have assumed that water from the Coldwater River and Nicola River is not used as a source of potable water without prior treatment.

The following section provides further discussion of the results of the October 2022 sampling, including the potential for the measured concentrations to adversely impact human health or the environment.

5.1 October 2022 Results

As summarized in Table J, the concentrations of the PCOCs analyzed in the surface water in both the Coldwater and Nicola rivers were within the range of the concentrations historically measured in the Nicola River at the mouth, near Spences Bridge. As noted, the data collected in October and November from 2000 to 2021 are considered representative of pre-flood (baseline) conditions. Given that the mean concentrations are within the range of variability observed pre-flood, it is unlikely that there will be long-term effects on water quality in the Coldwater and Nicola rivers as a result of the November 2021 flood. However, further studies would be required to confirm this statement.

[15] Minton, D., K. Gabelhouse, T. Gray, L. Johnson, J. Porter, and R. Shead. 2022. Water Quality Assessment of the Fraser River Following the November 2021 Floods. Environmental Quality Series, WSS2022. Prov. BC, Victoria BC

No pre-flood data were available for sediment. Further discussion of the metals and microbiological parameters measured in surface water and sediment during the October 2022 sampling program, and the EPH measured in sediment at one sampling location, is provided below.

Metals

As noted, while concentrations of the metals in surface water were within historical ranges, concentrations of total aluminum exceeded guidelines for aquatic life at select locations. Total aluminum exceedances were measured at four sample locations where turbidity values, TSS, and titanium concentrations were also elevated. Concentrations of dissolved aluminum were not detected in these samples, suggesting that the total aluminium is related to total suspended solids (i.e., naturally occurring suspended sediment). In addition, as the dissolved aluminum concentrations, which are generally more bioavailable, are less than the applicable surface water guidelines, there is considered to be a low potential for adverse effects to aquatic life.

No metals were measured in sediment at concentrations exceeding the applicable guidelines and standards.

Microbiological Parameters

Microbiological indicator parameters (fecal coliforms, total coliforms and *E. coli*) are used by regulatory agencies as indicators of the potential for microbiological contamination; however, they are also ubiquitous in the environment at variable concentrations. Because the presence of coliforms can indicate the potential for other microorganisms, best practices for preventing illness, including good hand hygiene, should be followed after all outdoor activities around the Nicola or Coldwater rivers.

Fecal coliform and *E. coli* were measured at 11 of the 12 surface water locations sampled along both stretches of the rivers. As noted, these microbiological parameters are ubiquitous and thus, their presence in surface water and sediment is not atypical. They could be related to non-anthropogenic sources such as decaying matter and animal feces, or human activities, such as agriculture or wastewater treatment. The BC Ministry of Agriculture and Food (2022)[16] indicates that over time (120 days) the extra load of potential bacteria that may result from flooding would be reduced in healthy soils exposed to ultraviolet rays from the sun. Given the time that has elapsed since the flood event, it is unlikely that potential bacteria from the flood remain in surface soils in the Study Area.

The highest concentrations of fecal coliform and *E. coli* measured in the Nicola River were at:

- EH1-1, downstream of the confluence of the two rivers and the City's wastewater treatment plant;
- HH1-1, upstream of Shulus, where bear feces and naturally decomposed fish remains were observed in the vicinity; and
- HH1-3, upstream of N'Kwala recreation site, 25 m away from an outhouse.

The highest concentrations of fecal coliform and *E. coli* measured in the Coldwater River were at:

- HH2-1, within Merritt near to the Claybanks RV park and sani-dump facility; and
- HH2-2, upstream of Merritt, near the music festival grounds and recreational sites.

[16] BC Ministry of Agriculture, Food and Fisheries. 2022. BC Good Agricultural Practices Guidelines: Risk Assessment for Natural Flood Disaster Events. March 2022. Available at: https://www2.gov.bc.ca/assets/gov/farming-natural-resources-and-industry/agriculture-and-seafood/business-and-market-development/emergency-preparedness/flood-2021/food_safety_risk_assessment_for_flood_events.pdf.

Evidence of the recent presence of animals (bear feces, animal prints and fish remains) were noted at a number of sample locations and may be the main source of microbiological parameters at these locations. Residential properties, outhouses, recreational areas, and RV parks with sani-dump facilities were identified as other potential sources in the area.

Hydrocarbons

Benzene and EPH (C_{19}-C_{32}) / HEPH were detected in one sediment sample (CC1-3) from the Nicola River. The sampling location was added to the sampling program based on community concern regarding sheen observed on surface water and the presence of equipment (mini dozer) and drums in the vicinity. Based on an environmental monitoring site report completed by Coastal Restoration Society in May 2022 during debris removal activities, field testing on the observed sheen indicated that it was likely naturally occurring and not associated with hydrocarbons. Further, given that the mini dozer and drums were located approximately 70 m from the river, it is considered unlikely that they are the source of the detected benzene and EPH (C_{19}-C_{32}) / HEPH.

As discussed in Section 4.2.1.3, the concentrations of benzene and EPH (C_{19}-C_{32}) / HEPH measured in sediment were far below the laboratory practical quantification limits, which reduces confidence in whether the parameters are true detections, or if they are associated with a laboratory anomaly. Benzene is highly soluble and tends to quickly partition from sediment to water, and thus, would not be expected to remain in sediment. Given that no existing potential sources of benzene contamination were observed at the time of sampling, and based on the low concentration detected, it is considered probable that the detected benzene is a laboratory anomaly.

The measured EPH concentration in CC1-3 was low (66 µg/g). As it has been determined that EPH is unlikely to be associated with the mini dozer and drums observed 70 m away from the river, there is a high potential that the measured concentration is associated with naturally occurring organics or is a laboratory anomaly. The EPH analysis targets hydrocarbons in the carbon range of those found in fuel, but can also capture naturally occurring organics, such as humic acids. Given the Coastal Restoration Society observation of sheen associated with naturally occurring organics, this is likely to be the case.

Further to the above, in the absence of sediment standards protective of human health, the ENV Protocol 1[17] (2021) recommends that soil standards be used to evaluate the potential for human health concerns. The measured concentration of EPH at CC1-3 (66 µg/g) is well below the lowest soil guidelines and standards protective of human health (CSR soil standard of 1,000 µg/g), and thus, the EPH measured in sediment at this location is not a concern. Further, while no Canadian sediment guidelines exist for EPH, given the low measured concentration and that PAH concentrations in the sample were not detected, no adverse impacts to aquatic life are anticipated.

5.2 Summary of Conclusions

The PCOCs analyzed for in surface water and sediment samples collected from the Nicola and Coldwater rivers were predominantly less than the applicable federal and provincial guidelines and standards. The exceptions are noted below, along with conclusions regarding the potential for the contaminants to impact human health and the environment.

[17] Protocol 1; Protocol for Contaminated Sites – *Detailed Risk Assessment*, BC Ministry of Environment and Climate Change Strategy, Version 3, May 13, 2021.

The concentrations of the PCOCs analyzed in the surface water in both the Coldwater and Nicola rivers were within the range of the concentrations historically measured in the Nicola River at the mouth, near Spences Bridge. As noted, the data collected during October / November over the period of 2000 to 2021 are considered representative of pre-flood (baseline) conditions. Given that the mean concentrations are within the range of variability observed pre-flood, it is unlikely that the November 2021 floods will create long-term effects on water quality in the Coldwater and Nicola rivers. However, further studies would be required to confirm this statement.

While concentrations of total aluminum exceeded the aquatic life guidelines at select locations, the total aluminum was associated with elevated turbidity values, suggesting that the total aluminium is related to total suspended solids. In addition, as the dissolved aluminum concentrations, which are generally accepted as being more representative of the bioavailable fraction, are less than the applicable surface water guidelines, there is a low potential for adverse effects to aquatic life.

Benzene and EPH were measured at low concentrations in a single sediment sample. It is considered likely that the detected concentrations are laboratory anomalies and/or are related to naturally occurring organics observed in the area that the sample was collected. Additionally, the measured concentrations are below the lowest soil guidelines and standards protective of human and ecological health, and thus, are not a concern. Further, PAHs, which are considered the more toxic constituents represented by EPH were not detected, and thus, no adverse impacts to aquatic life are anticipated.

Finally, while microbiological indicator parameters were measured in the sediment and surface water samples, they are ubiquitous in the environment and are likely associated with various sources in the area, including natural sources, campgrounds, agriculture, and wastewater treatment. As the presence of coliforms can indicate the potential for other microorganisms, best practices for preventing illness, including good hand hygiene, should always be followed after all outdoor activities along the Nicola and Coldwater rivers.

5.3 Recommendations

Despite the conclusion that the November 2021 floods likely do not impact sediment and water quality long-term, the available baseline data for the Nicola and Coldwater River systems are limited. On this basis, the following recommendations are provided:

- To confirm this study's findings and to further investigate potential flooding impacts, it is recommended that a longer term study be carried out.
- To reduce uncertainty and improve the overall data set in these rivers, it is recommended that the EMS sampling program be expanded to other select existing stations, with surface water and sediment sampling conducted quarterly or seasonally during expected maximum and minimum flow conditions.
- The BC ENV waste discharge authorization website indicates that “some authorizations require monitoring results to be uploaded into the EMS”. If analytical data are required under any waste discharge authorization or permit, data should be uploaded to the EMS thereby providing other points of reference for data interpretation.
- In consideration of Indigenous values and in the spirit of reconciliation, a collaborative approach between relevant stakeholders and Indigenous Nations is recommended to address issues in the Nicola and Coldwater rivers.

6 Notice to Reader

This report has been prepared and the work referred to in this report have been undertaken by SNC-Lavalin Inc. (SNC-Lavalin) for the exclusive use of BC Ministry of the Environment and Climate Change Strategy (ENV), who has been party to the development of the scope of work and understands its limitations. The methodology, findings, conclusions and recommendations in this report are based solely upon the scope of work and subject to the time and budgetary considerations described in the proposal and/or contract pursuant to which this report was issued. Any use, reliance on, or decisions made by a third party based on this report is the sole responsibility of such third party. SNC-Lavalin accepts no liability or responsibility for any damages that may be suffered or incurred by any third party as a result of the use of, reliance on, or any decision made based on this report.

The findings, conclusions and recommendations in this report (i) have been developed in a manner consistent with the level of skill normally exercised by professionals currently practicing under similar conditions in the area, and (ii) reflect SNC-Lavalin's best judgment based on information available at the time of preparation of this report. No other warranties, either expressed or implied, are made as to the professional services provided under the terms of our original contract and included in this report. The findings and conclusions contained in this report are valid only as of the date of this report and may be based, in part, upon information provided by others. If any of the information is inaccurate, new information is discovered, site conditions change or standards are amended, modifications to this report may be necessary. The results of this assessment should in no way be construed as a warranty that the subject site is free from any and all environmental impact.

This report must be read as a whole, as sections taken out of context may be misleading. If discrepancies occur between the preliminary (draft) and final version of this report, it is the final version that takes precedence. Nothing in this report is intended to constitute or provide a legal opinion.

We trust this provides you with the information you currently require. If you have any questions, please contact the undersigned at your earliest convenience.

SNC-Lavalin Inc.
Permit No. 1002642
2023-03-31
PROFESSIONAL
PROVINCE OF
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BRITISH COLUMBIA
GEO SCIENTIST

Tania Lazorko, BSc, EP
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Senior Project Hydrogeologist

Environment Practice
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Tara Siemens-Kennedy, MET, PChem, CSAP
Senior Risk Assessor and Toxicologist/National Risk Assessment Practice Lead

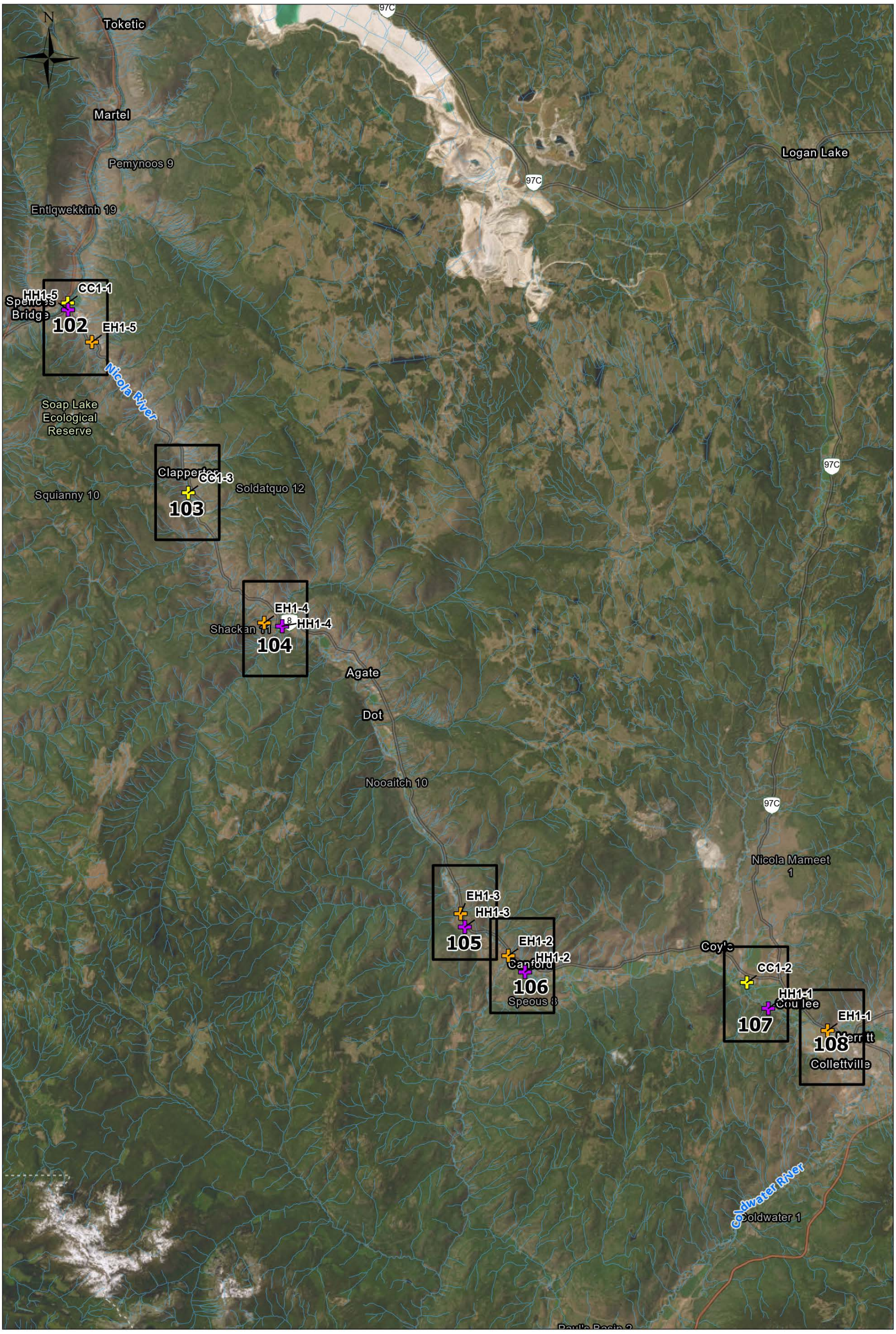
Environment Practice
Engineering Services, Canada

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Attachment 1

Drawings

- 690667-WC1-101 – Nicola River Sampling Locations
- 690667-WC1-102 – Nicola River Sampling Locations
- 690667-WC1-103 – Nicola River Sampling Locations
- 690667-WC1-104 – Nicola River Sampling Locations
- 690667-WC1-105 – Nicola River Sampling Locations
- 690667-WC1-106 – Nicola River Sampling Locations
- 690667-WC1-107 – Nicola River Sampling Locations
- 690667-WC1-108 – Nicola River Sampling Locations
- 690667-WC2-101 – Coldwater River Sampling Locations
- 690667-WC2-102 – Coldwater River Sampling Locations
- 690667-WC2-103 – Coldwater River Sampling Locations
- 690667-WC2-104 – Coldwater River Sampling Locations
- 690667-WC2-105 – Coldwater River Sampling Locations
- 690667-WC2-106 – Coldwater River Sampling Locations
- 690667-WC2-107 – Coldwater River Sampling Locations
- 690667-WC2-108 – Coldwater River Sampling Locations



Legend

Sampling Location
- Community Concern
- Ecological
- Potential Human Health
- Streams
- Indian Reserves
- Mapsheets

Notes:
1. Original in colour.
2. Numerical scale reflects full-size print. Print scaling will distort this scale; however, scale bar will remain accurate.
3. Intended for illustration purposes. Accuracy has not been verified for construction or navigation.

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Revisions:
0 - SS - 2022-08-08- DRAFT - TL
1- SS - 2022-09-15- DRAFT - TL
2- SS - 2022-10-06- DRAFT - TL

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PROJECT LOCATION:
Nicola River from Spences Bridge to Merritt

CLIENT NAME:
Ministry of Environment

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Nicola River Sampling Locations

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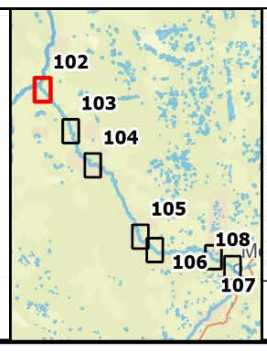
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Legend

Sampling Location
- Community Concern
- Ecological
- Potential Human Health
- Streams
- Indian Reserves



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World Imagery: Maxar

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2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Nicola River from
Spences Bridge to Merritt

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Nicola River Sampling Locations

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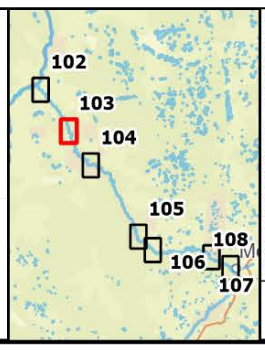
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Legend

Sampling Location

- Community Concern
- Streams
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0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
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Nicola River Sampling Locations

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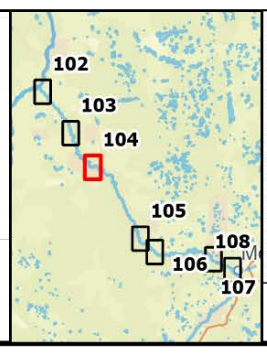
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Legend

Sampling Location
- Ecological
- Potential Human Health
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0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
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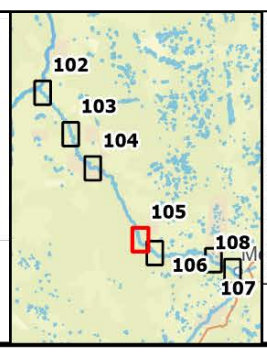
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0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Nicola River from
Spences Bridge to Merritt

CLIENT NAME:
Ministry of Environment

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Nicola River Sampling Locations

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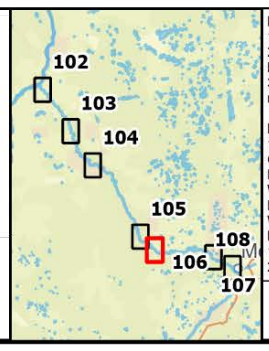
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Sampling Location
- Ecological
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0 0.2 0.4 0.8 1.2 km

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Nicola River from
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Nicola River Sampling Locations

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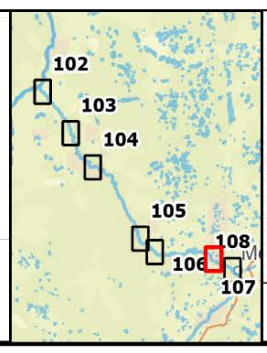
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0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Nicola River from Spences Bridge to Merritt

CLIENT NAME:
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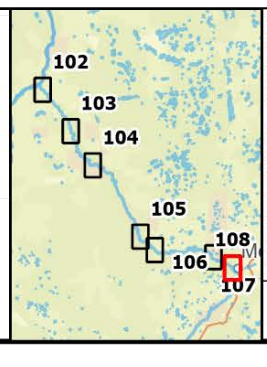
Nicola River Sampling Locations

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Legend

Sampling Location
- Ecological
- Streams
- Indian Reserves

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0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Nicola River from
Spences Bridge to Merritt

CLIENT NAME:
Ministry of Environment

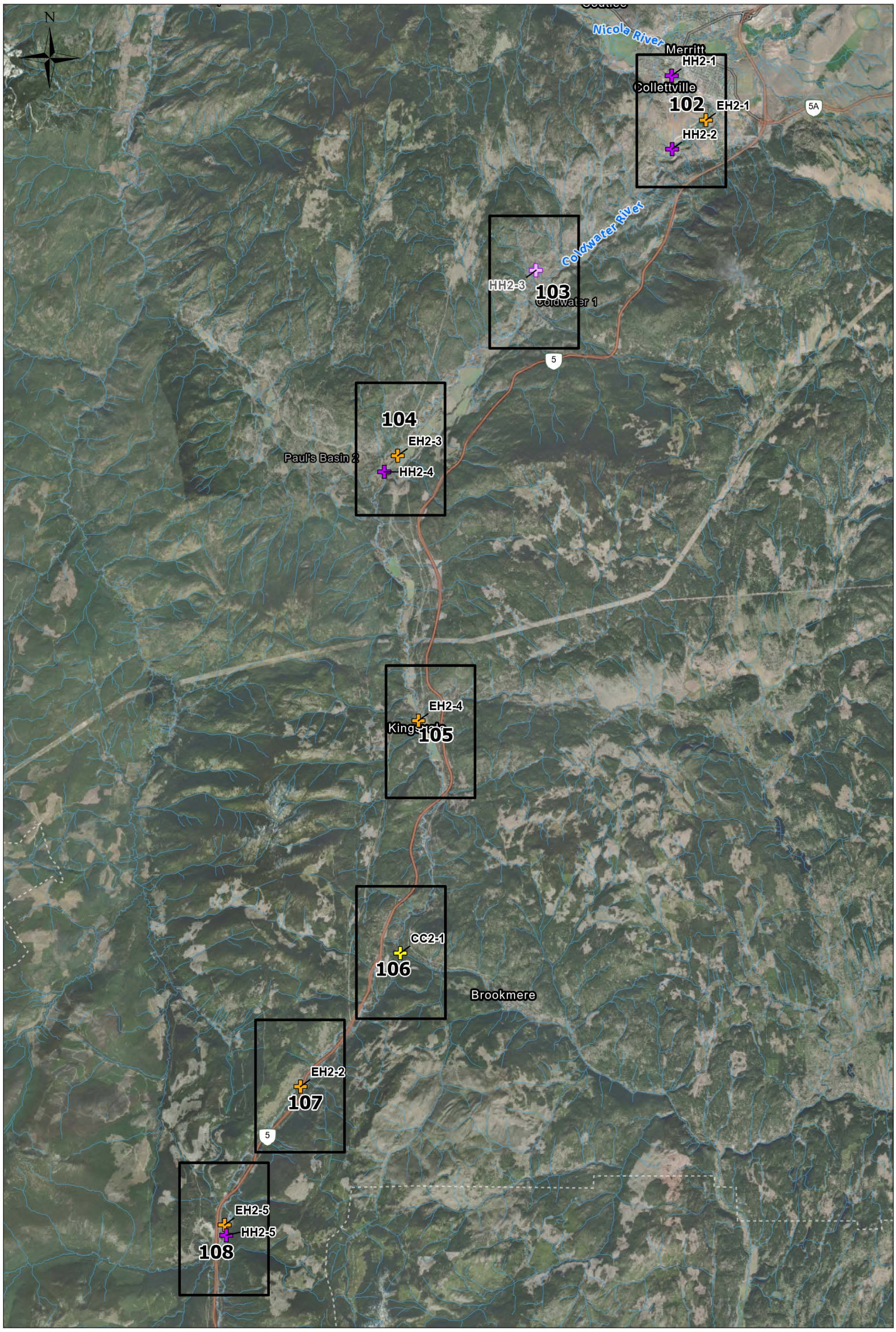
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Nicola River Sampling Locations

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Legend

Sampling Location
- Community Concern
- Ecological
- Potential Human Health

Proposed Location, Not Sampled
- Human Health
- Streams
- Indian Reserves
- Mapsheets

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1 - SS - 2022-09-15- DRAFT - TL
2 - SS - 2022-10-06- DRAFT - TL

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PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

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Coldwater River Sampling Locations

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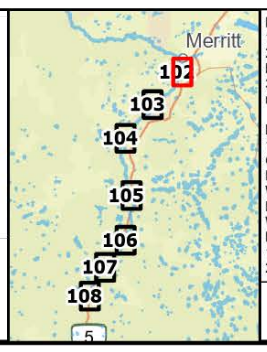
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Sampling Location
- Ecological
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PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

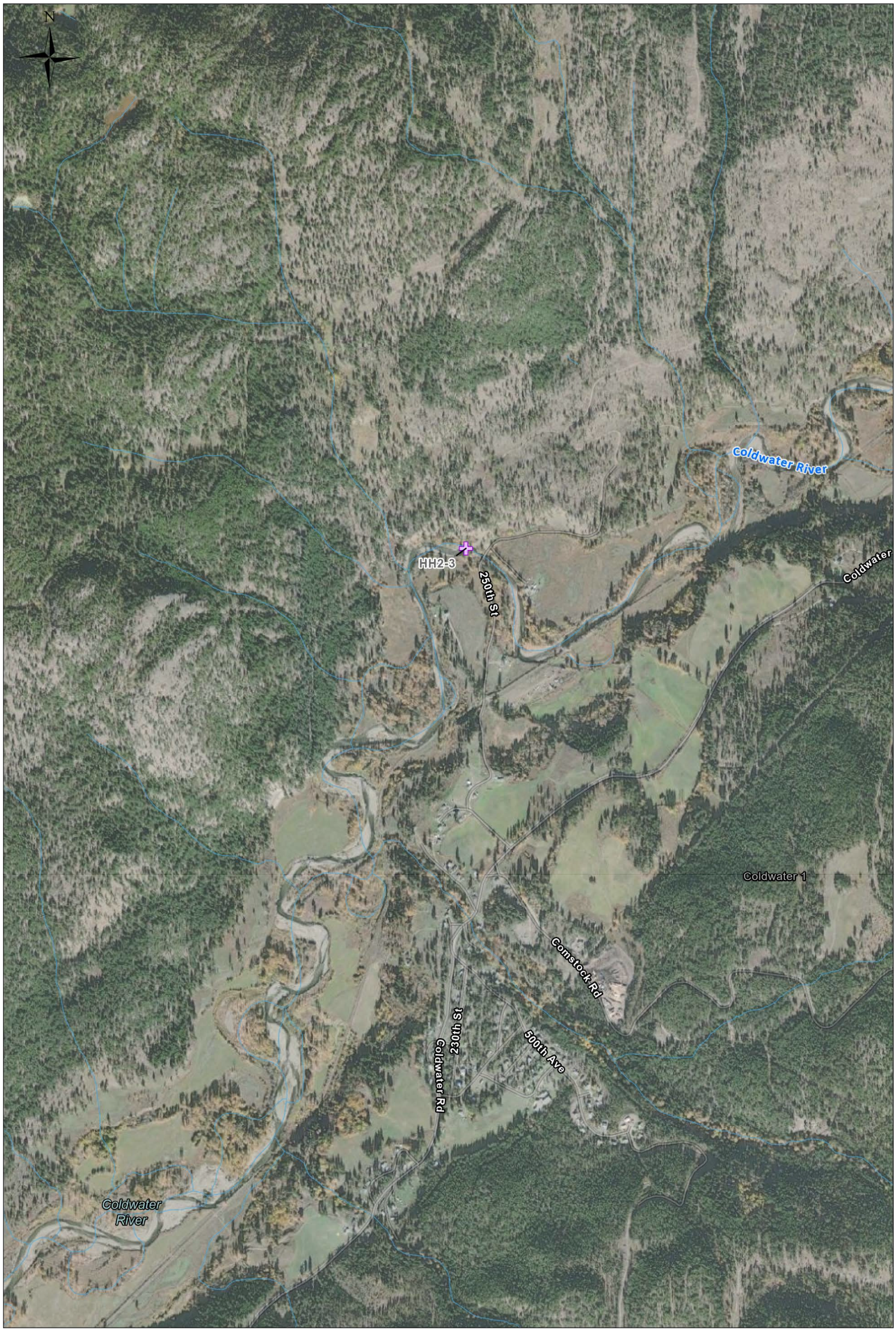
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Coldwater River Sampling Locations

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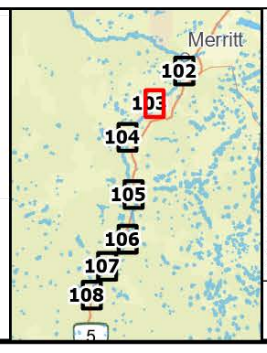
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Proposed Location, Not Sampled

Human Health

Streams

Indian Reserves



Notes:
1. Original in colour.
2. Numerical scale reflects full-size print. Print scaling will distort this scale; however, scale bar will remain accurate.
3. Intended for illustration purposes. Accuracy has not been verified for construction or navigation.

References:
1. Hybrid Reference Layer: Esri Canada, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, US Census Bureau, USDA, NRCan, Parks Canada
World Street Map: Esri Canada, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NRCan, Parks Canada
World Imagery: Maxar

Revisions:
1 - SS - 2022-09-19- DRAFT - TL
2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Coldwater River Sampling Locations

CHK'D: TL	DATE: 2023-01-31 SCALE: 1:20,000	Ref Num: REV: 2
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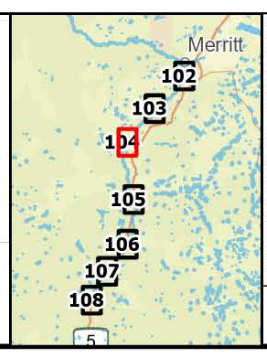
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Legend

Sampling Location
- Ecological
- Potential Human Health
- Streams
- Indian Reserves



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Revisions:
1 - SS - 2022-09-19- DRAFT - TL
2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Coldwater River Sampling Locations

CHK'D: TL | DATE: 2023-01-31 | SCALE: 1:20,000 | Ref Num: | REV: 2
BY: SS | COORD SYS: WGS 1984 Web Mercator | **690667-WC2-104**

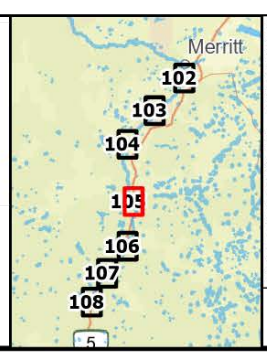
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Legend

Sampling Location
- Ecological
- Streams
- Indian Reserves



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Revisions:
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2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Coldwater River Sampling Locations

CHK'D: TL	DATE: 2023-01-31	SCALE: 1:20,000	Ref Num:	REV: 2
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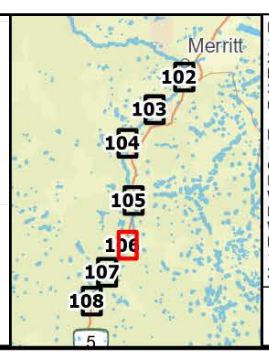
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Project Path: P:\Current Projects\Ministry of Environment\690667\40_Execution\45_GIS_Dwgs\Exports



Legend

Sampling Location
- Community Concern
- Streams
- Indian Reserves



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Revisions:
1 - SS - 2022-09-19- DRAFT - TL
2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Coldwater River Sampling Locations

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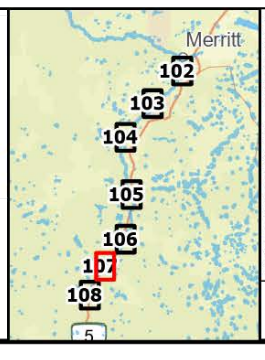
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Project Path: P:\Current Projects\Ministry of Environment\690667\40_Execution\45_GIS_Dwgs\Exports



Legend

Sampling Location
- Ecological
- Streams
- Indian Reserves



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World Imagery: Maxar

Revisions:
1 - SS - 2022-09-19- DRAFT - TL
2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Coldwater River from
Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Coldwater River Sampling Locations

CHK'D: TL	DATE: 2023-01-31 SCALE: 1:20,000	Ref Num: REV: 2
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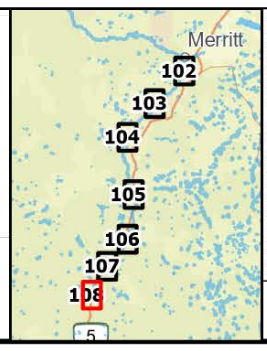
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Legend

Sampling Location

- Ecological
- Potential Human Health
- Streams
- Indian Reserves



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Revisions:
1 - SS - 2022-09-19- DRAFT - TL
2 - SS - 2022-10-06- DRAFT - TL

0 0.2 0.4 0.8 1.2 km

PROJECT LOCATION:
Coldwater River from Merritt to Juliet Drive Junction, BC

CLIENT NAME:
Ministry of Environment

SNC·LAVALIN

Coldwater River Sampling Locations

CHK'D: TL	DATE: 2023-01-31	SCALE: 1:20,000	Ref Num:	REV: 2
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Attachment 2

Site Photographs



Photograph 1: Sediment sample collection at location EH1-1, Nicola River, west of Merritt, BC.



Photograph 2: Nicola River, view upstream from location EH1-1 towards the confluence of the Nicola and Coldwater Rivers.



Photograph 3: Woody debris on the riverbank at location HH1-1, Nicola River, Nicola Mameet IR 1.



Photograph 4: Nicola River, view facing downstream from sample location HH1-1.



Photograph 5: Sample location CC1-2, Nicola River, Nicola Mameet IR 1.



Photograph 6: Helicopter used to access locations on Nicola Mameet IR 1, landing on sandbars, Nicola River.



Photograph 7: Sampling location HH1-2, adjacent (downstream) to the bridge over the Nicola River at Sunshine Valley Rd., near Canford, BC.



Photograph 8: View facing upstream from location EH1-2, Nicola River, downstream of Spius Creek.



Photograph 9: View upstream from location HH1-3, Nooaitch IR 10, Nicola River.



Photograph 10: Sample location EH1-3, Nooaitch IR 10; view facing upstream along the Nicola River.



Photograph 11: Location HH1-4, area of previous debris observation including a vehicle, Shackan IR 11.



Photograph 12: View facing upstream from sample location EH1-4, Shackan IR 11, along the Nicola River near Skuhun Creek.



Photograph 13: Location CC1-3, south of Clapperton.



Photograph 14: Sample location EH1-5, Nicola River, upstream of Spences Bridge.



Photograph 15: Sample location HH1-5, downstream of Highway 8 bridge at Spences Bridge.



Photograph 16: Sample location CC1-1, confluence of the Nicola and Thompson Rivers at Spences Bridge.



Photograph 17: Sample location HH2-1, adjacent to RV park, Merritt, BC; view facing downstream along the Coldwater River.



Photograph 18: Sample location EH2-1, Coldwater River upstream of Merritt; view facing upstream.



Photograph 19: Sample location HH2-2, adjacent to the music festival grounds; view facing upstream along the Coldwater River.



Photograph 20: Sample location EH2-3, view downstream along the Coldwater River.



Photograph 21: Sample location HH2-4, adjacent to Paul's Basin IR 2; view facing downstream.



Photograph 22: Sample location EH2-4, adjacent the Gillis Rd. bridge at Kingsvale.



Photograph 23: Sample location CC2-1, confluence of Brook Creek and the Coldwater River.



Photograph 24: Sample location EH2-2, near bridge along Highway 5.



Photograph 25: Sample location EH2-5; view facing downstream along the Coldwater River.



Photograph 26: Location HH2-5, Coldwater River at Juliet Drive Junction, farthest upstream sample location.

Attachment 3

Tables

1. Summary of Analytical Results in Sediment – Total Metals
2. Summary of Analytical Results in Sediment – Microbiological Tests
3. Summary of Analytical Results in Sediment – Hydrocarbons
4. Summary of Analytical Results in Sediment – Polycyclic Aromatic Hydrocarbons
5. Summary of Analytical Results in Sediment – Volatile Organic Compounds
6. Summary of Analytical Results in Sediment – Pesticides
7. Summary of Analytical Results in Sediment – PCB
8. Summary of Analytical Results in Sediment – Chlorinated Phenols
9. Summary of Analytical Results in Sediment – Grain Size

10A. Summary of Analytical Results for Surface Water – Total Metals
10B. Summary of Analytical Results for Surface Water – Total Metals
11A. Summary of Analytical Results for Surface Water – Dissolved Metals
11B. Summary of Analytical Results for Surface Water – Dissolved Metals
12A. Summary of Analytical Results for Surface Water – Microbiological Tests
12B. Summary of Analytical Results for Surface Water – Microbiological Tests
13A. Summary of Analytical Results for Surface Water – Hydrocarbons
13B. Summary of Analytical Results for Surface Water – Hydrocarbons
14A. Summary of Analytical Results for Surface Water – Polycyclic Aromatic Hydrocarbons
14B. Summary of Analytical Results for Surface Water – Polycyclic Aromatic Hydrocarbons
15A. Summary of Analytical Results for Surface Water – Volatile Organic Compounds
15B. Summary of Analytical Results for Surface Water – Volatile Organic Compounds
16A. Summary of Analytical Results for Surface Water – Dissolved Inorganics
16B. Summary of Analytical Results for Surface Water – Dissolved Inorganics
17A. Summary of Analytical Results for Surface Water – Pesticides
17B. Summary of Analytical Results for Surface Water – Pesticides
18A. Summary of Analytical Results for Surface Water – Chlorinated Phenols
18B. Summary of Analytical Results for Surface Water – Chlorinated Phenols

TABLE 1: Summary of Analytical Results for Sediment - Total Metals

Sample Location			CC1-1	CC1-3	CC2-1	EH1-1	EH1-2	EH1-3	EH1-4	EH1-5	EH2-1	EH2-2	EH2-3	EH2-4	EH2-5	Federal Guideline		BC Standard
Sample ID			SED22-CC1-1	SED22-CC1-3	SED22-CC2-1	SED22-EH1-1	SED22-EH1-2	SED22-EH1-3	SED22-EH1-4	SED22-EH1-5	SED22-EH2-1	SED22-EH2-2	SED22-EH2-3	SED22-EH2-4	SED22-EH2-5	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 21	2022 10 21	2022 10 19	2022 10 19	2022 10 21	2022 10 21	2022 10 20	2022 10 21	2022 10 18	2022 10 19	2022 10 18	2022 10 19	2022 10 19	Interim Sediment Quality	Probable Effect Level	Sediment
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.05 - 0.1	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	(ISQG)[a]	(PEL)[a]	(FW) Sensitive[b]
Parameter	**Units**	**RDL**	**Analytical Results**															
Physical Parameters																		
pH	pH	0.10	8.64	7.67	7.66	7.93	7.87	7.8	8.21	8.12	8.06	6.94	7.93	7.52	7.38	n/a	n/a	n/a
Solid Content	%	1.0	79.7	92.6	-	87.7	88.8	-	-	70	-	85	92.5	84.6	83.5	n/a	n/a	n/a
Total Organic Carbon	%	0.050	0.234	2.07	0.377	0.052	< 0.050	0.103	0.574	0.972	0.06	0.194	0.145	0.176	0.18	n/a	n/a	n/a
Total Organic Carbon	µg/g	500	2,340	20,700	3,770	520	< 500	1,030	5,740	9,720	600	1,940	1,450	1,760	1,800	n/a	n/a	n/a
Total Metals																		
Aluminum	µg/g	40	11,800	18,900	9,310	9,900	8,510	10,400	12,200	15,500	8,840	8,890	7,270	6,890	5,530	n/a	n/a	n/a
Antimony	µg/g	0.10	0.21	0.17	0.17	0.16	< 0.10	0.2	0.15	0.24	0.14	0.12	< 0.10	0.13	< 0.10	n/a	n/a	n/a
Arsenic	µg/g	0.30	3.44	2.28	3.2	3.54	1.38	3.44	2.14	3.24	2.32	1.81	2.32	2.05	1.04	5.9	17	11
Barium	µg/g	1.0	48.7	115	86.2	32.5	43.4	51.6	66.3	114	98.6	74.1	76.8	53.6	53.2	n/a	n/a	n/a
Beryllium	µg/g	0.10	0.26	0.45	0.22	0.19	0.15	0.23	0.24	0.33	0.2	0.17	0.19	0.17	0.11	n/a	n/a	n/a
Boron	µg/g	2.0	2.5	5.9	< 2.0	< 2.0	< 2.0	< 3.0	2.3	3.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	n/a	n/a	n/a
Cadmium	µg/g	0.040	0.096	0.156	0.064	0.045	< 0.040	0.07	0.07	0.123	0.052	0.052	0.042	0.044	0.044	0.6	3.5	2.2
Chromium	µg/g	1.0	25.8	34.4	13.6	16.3	14.3	26.3	19.4	24.8	11.2	11.3	9.2	5.7	7.4	37.3	90	56
Cobalt	µg/g	0.10	8.76	13.3	6.99	10.4	6.12	9.29	8.79	10.4	6.59	6.35	5.09	4.85	4.36	n/a	n/a	n/a
Copper	µg/g	0.40	20.9	32.5	17.6	16.7	13.7	23.1	22.5	35	14.7	19.9	12.8	12.1	12	35.7	197	120
Iron	µg/g	20	23,100	26,700	21,400	23,300	15,200	29,500	23,100	23,700	18,700	19,100	14,700	15,000	11,800	n/a	n/a	n/a
Lead	µg/g	0.20	2.26	4.41	3.5	1.91	1.25	2.43	2.57	3.65	2.25	2.21	2.1	1.91	1.48	35	91.3	57
Lithium	µg/g	0.10	7.38	6.56	6.77	6.68	4.22	6.04	7.76	7.98	5.8	7.23	5.17	4.88	4.4	n/a	n/a	n/a
Manganese	µg/g	0.40	417	624	413	417	249	403	414	590	377	354	307	324	273	n/a	n/a	n/a
Mercury	µg/g	0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	0.17	0.486	0.3
Molybdenum	µg/g	0.10	0.44	0.48	0.41	0.25	0.17	0.37	0.45	0.68	0.3	0.35	0.31	0.39	0.31	n/a	n/a	n/a
Nickel	µg/g	0.60	20.3	38.5	8.73	13.2	9.78	14.7	13.9	21.6	9.12	7.79	6.83	4.83	5.36	n/a	n/a	n/a
Selenium	µg/g	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	n/a	n/a	n/a
Silver	µg/g	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	n/a	n/a	n/a
Strontium	µg/g	0.20	60.5	163	41.6	26.2	36.9	45.7	60.5	101	63.5	32.1	55.5	26.9	21.4	n/a	n/a	n/a
Thallium	µg/g	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	n/a	n/a	n/a
Tungsten	µg/g	0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	n/a	n/a	n/a
Tin	µg/g	0.20	0.31	0.53	0.44	0.41	< 0.20	0.28	0.34	0.4	0.25	0.31	0.27	0.22	< 0.20	n/a	n/a	n/a
Uranium	µg/g	0.050	0.338	0.632	0.286	0.277	0.249	0.441	0.366	0.533	0.299	0.317	0.278	0.261	0.179	n/a	n/a	n/a
Vanadium	µg/g	1.0	62.1	71.8	55.5	61.6	43.5	93.3	65.8	63	44.8	46.1	35.3	33.1	27.2	n/a	n/a	n/a
Zinc	µg/g	2.0	43.8	53.6	39.5	37.6	24.8	38.7	37.2	48	37.2	38.9	29	32.9	27.8	123	315	200

Associated CARO file(s): 22J2565, 22J2670, 22J2737, 22J2912, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Guideline to protect freshwater aquatic life.
[b] Pathways Included: Sensitive Site.

TABLE 1: Summary of Analytical Results for Sediment - Total Metals

Sample Location			HH1-1			HH1-2	HH1-3	HH1-4	HH1-5	HH2-1			HH2-2	HH2-4	HH2-5	Federal Guideline		BC Standard
Sample ID			SED22-HH1-1	SED22-A	QA/QC	SED22-HH1-2	SED22-HH1-3	SED22-HH1-4	SED22-HH1-5	SED22-HH2-1	SED22-B	QA/QC	SED22-HH2-2	SED22-HH2-4	SED22-HH2-5	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 21	2022 10 20	2022 10 21	2022 10 18	Duplicate	RPD %	2022 10 18	2022 10 18	2022 10 19	Interim Sediment Quality	Probable Effect Level	Sediment
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2		0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.15	0.1 - 0.15		0.05 - 0.1	0.1 - 0.2	0.1 - 0.2	(ISQG)[a]	(PEL)[a]	(FW) Sensitive[b]
Parameter	**Units**	**RDL**	**Analytical Results**															
Physical Parameters																		
pH	pH	0.10	7.8	7.44	5	7.63	7.2	7.46	8.1	7.63	7.87	3	7.8	5.98	5.66	n/a	n/a	n/a
Solid Content	%	1.0	80	79.7	0	83.2	89.3	82.4	80.8	78.7	80.8	3	93	86.6	81.6	n/a	n/a	n/a
Total Organic Carbon	%	0.050	0.198	0.145	*	< 0.050	0.604	0.429	0.54	< 0.050	< 0.050	*	< 0.050	< 0.050	0.075	n/a	n/a	n/a
Total Organic Carbon	µg/g	500	1,980	1,450	31	< 500	6,040	4,290	5,400	< 500	< 500	*	< 500	< 500	750	n/a	n/a	n/a
Total Metals																		
Aluminum	µg/g	40	9,220	9,210	0	8,450	17,300	12,900	8,020	7,690	7,200	7	6,880	8,030	6,430	n/a	n/a	n/a
Antimony	µg/g	0.10	0.18	0.16	*	0.15	0.2	0.18	0.14	0.14	0.11	*	0.11	0.12	0.11	n/a	n/a	n/a
Arsenic	µg/g	0.30	2.52	2.55	1	2.44	3.39	2.31	2.49	2.62	2.19	18	2.66	2.86	1.63	5.9	17	11
Barium	µg/g	1.0	68.7	69.6	1	47.4	108	70.3	45.7	90	66.7	30	78.4	55	66.1	n/a	n/a	n/a
Beryllium	µg/g	0.10	0.21	0.21	*	0.18	0.32	0.27	0.18	0.19	0.17	*	0.17	0.19	0.13	n/a	n/a	n/a
Boron	µg/g	2.0	< 2.0	< 2.0	*	< 3.0	< 3.0	3.6	2.3	< 2.0	< 2.0	*	< 2.0	2.2	< 2.0	n/a	n/a	n/a
Cadmium	µg/g	0.040	0.061	0.065	*	0.053	0.084	0.069	< 0.040	0.089	< 0.040	*	0.045	0.056	0.053	0.6	3.5	2.2
Chromium	µg/g	1.0	15.3	14.6	5	12.6	31	19.9	11.6	9	8.2	9	11.2	10.7	9.2	37.3	90	56
Cobalt	µg/g	0.10	7.03	7.08	1	6.83	11.6	8.75	6.44	6.24	5.57	11	5.67	6.54	5.42	n/a	n/a	n/a
Copper	µg/g	0.40	15.8	16.1	2	16.1	31.6	26	14.6	15.8	11.7	30	12.7	16	15.1	35.7	197	120
Iron	µg/g	20	21,100	21,000	0	18,700	28,100	23,600	18,300	17,200	16,600	4	17,100	18,400	16,800	n/a	n/a	n/a
Lead	µg/g	0.20	2.49	2.54	2	2	2.9	2.69	1.78	2.52	1.91	28	1.92	3.17	2.09	35	91.3	57
Lithium	µg/g	0.10	5.89	5.9	0	5.9	7.95	8.27	5.7	5.16	5.23	1	5.01	6.59	4.92	n/a	n/a	n/a
Manganese	µg/g	0.40	364	372	2	372	519	412	305	303	305	1	334	393	284	n/a	n/a	n/a
Mercury	µg/g	0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	< 0.040	0.17	0.486	0.3
Molybdenum	µg/g	0.10	0.33	0.31	*	0.28	0.44	0.47	0.26	0.35	0.24	*	0.27	0.41	0.59	n/a	n/a	n/a
Nickel	µg/g	0.60	10.7	10.9	2	9.49	20.7	14.4	8.51	8.3	6.94	18	8.06	8.67	6.12	n/a	n/a	n/a
Selenium	µg/g	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	< 0.20	n/a	n/a	n/a
Silver	µg/g	0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	< 0.10	n/a	n/a	n/a
Strontium	µg/g	0.20	45.9	45.1	2	28.7	80.7	64.9	30.7	56.5	34.7	48	48.4	25.1	26.5	n/a	n/a	n/a
Thallium	µg/g	0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	< 0.10	n/a	n/a	n/a
Tungsten	µg/g	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	< 0.20	n/a	n/a	n/a
Tin	µg/g	0.20	0.41	0.42	*	0.21	0.38	0.31	< 0.20	0.22	0.22	*	0.24	0.25	< 0.20	n/a	n/a	n/a
Uranium	µg/g	0.050	0.313	0.315	1	0.291	0.546	0.409	0.252	0.261	0.251	4	0.216	0.322	0.351	n/a	n/a	n/a
Vanadium	µg/g	1.0	56.9	58	2	48	82.7	69.5	46.2	39	37	5	40.6	44.7	40.8	n/a	n/a	n/a
Zinc	µg/g	2.0	37.6	36.7	2	31.9	46.4	38.2	30.2	33.4	33.3	0	33.5	37.4	27.7	123	315	200

Associated CARO file(s): 22J2565, 22J2670, 22J2737, 22J2912, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Guideline to protect freshwater aquatic life.
[b] Pathways Included: Sensitive Site.

TABLE 2: Summary of Analytical Results for Sediment - Microbiological Tests

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Microbiological Tests		
				Fecal MPN/g	E. Coli MPN/g	Total MPN/g
Reported Detection Limit				3.0	3.0	3.0
CC1-1	SED22-CC1-1	2022 10 21	0.1 - 0.2	< 3.8	< 3.8	11
HH1-1	SED22-HH1-1	2022 10 20	0.1 - 0.2	4.5	4.5	4.5
	SED22-A	Duplicate	0.1 - 0.2	< 3.8	< 3.8	< 3.8
	QA/QC RPD%			*	*	*
HH1-2	SED22-HH1-2	2022 10 20	0.1 - 0.2	< 3.0	< 3.0	< 3.0
HH1-3	SED22-HH1-3	2022 10 21	0.1 - 0.2	< 3.0	< 3.0	< 3.0
HH1-4	SED22-HH1-4	2022 10 20	0.1 - 0.2	28	28	28
HH1-5	SED22-HH1-5	2022 10 21	0.1 - 0.2	90	90	5,700
HH2-1	SED22-HH2-1	2022 10 18	0.1 - 0.15	< 3.8	< 3.8	29
	SED22-B	Duplicate	0.1 - 0.15	< 3.0	< 3.0	< 3.0
	QA/QC RPD%			*	*	*
HH2-2	SED22-HH2-2	2022 10 18	0.05 - 0.1	< 3.0	< 3.0	16
HH2-4	SED22-HH2-4	2022 10 18	0.1 - 0.2	< 3.0	< 3.0	< 3.0
HH2-5	SED22-HH2-5	2022 10 19	0.1 - 0.2	< 3.0	< 3.0	< 3.0
Federal and BC Standards						
CCME CEQG Interim Sediment Quality (ISQG)[a]				n/a	n/a	n/a
CCME CEQG Probable Effect Level (PEL)[a]				n/a	n/a	n/a
CSR Freshwater Sediment Sensitive (FW)[b]				n/a	n/a	n/a

Associated CARO file(s): 22J2565, 22J2670, 22J2737, 22J2912, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment Sensitive (FW) standard

[a] Guideline to protect freshwater aquatic life.
[b] Pathways Included: Sensitive Site.

TABLE 3: Summary of Analytical Results for Sediment - Hydrocarbons

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Monocyclic Aromatic Hydrocarbons					Gross Parameters					MTBE
				Benzene µg/g	Ethylbenzen µg/g	Toluene µg/g	Xylenes µg/g	Styrene µg/g	VPH (C6-C10) µg/g	EPH (C10-C19) µg/g	LEPH (C10-C19) µg/g	EPH (C19-C32) µg/g	HEPH (C19-C32) µg/g	Methyl Tert-butyl µg/g
Reported Detection Limit				0.030	0.050	0.200	0.100	0.050	20	50	50	50	50	0.040
CC1-1	SED22-CC1-1	2022 10 21	0.1 - 0.2	-	-	-	-	-	-	< 50	< 50	< 50	< 50	-
CC1-2	SED22-CC1-2	2022 10 20	0.1 - 0.2	-	-	-	-	-	-	< 50	< 50	< 50	< 50	-
CC1-3	SED22-CC1-3	2022 10 21	0.1 - 0.2	0.032	< 0.050	< 0.200	< 0.100	< 0.050	< 44	< 50	< 50	66	66	< 0.040
EH1-1	SED22-EH1-1	2022 10 19	0.1 - 0.2	-	-	-	-	-	-	< 50	< 50	< 50	< 50	-
EH1-2	SED22-EH1-2	2022 10 21	0.1 - 0.2	-	-	-	-	-	-	< 50	-	< 50	-	-
EH1-5	SED22-EH1-5	2022 10 21	0.1 - 0.2	-	-	-	-	-	-	< 50	-	< 50	-	-
EH2-3	SED22-EH2-3	2022 10 18	0.1 - 0.2	-	-	-	-	-	-	< 50	-	< 50	-	-
HH1-1	SED22-HH1-1	2022 10 20	0.1 - 0.2	< 0.030	< 0.050	< 0.200	< 0.100	< 0.050	< 20	< 50	< 50	< 50	< 50	< 0.040
	SED22-A	Duplicate	0.1 - 0.2	< 0.030	< 0.050	< 0.200	< 0.100	< 0.050	< 20	< 50	< 50	< 50	< 50	< 0.040
	QA/QC RPD%			*	*	*	*	*	*	*	*	*	*	*
HH1-2	SED22-HH1-2	2022 10 20	0.1 - 0.2	-	-	-	-	-	-	< 50	-	< 50	-	-
HH1-4	SED22-HH1-4	2022 10 20	0.1 - 0.2	-	-	-	-	-	-	< 50	< 50	< 50	< 50	-
HH2-1	SED22-HH2-1	2022 10 18	0.1 -	-	-	-	-	-	-	< 50	< 50	< 50	< 50	-
	SED22-B	Duplicate	0.1 -	-	-	-	-	-	-	< 50	< 50	< 50	< 50	-
	QA/QC RPD%			-	-	-	-	-	-	*	*	*	*	-
HH2-2	SED22-HH2-2	2022 10 18	0.05 -	< 0.030	< 0.050	< 0.200	< 0.100	< 0.050	< 20	< 50	< 50	< 50	< 50	< 0.040
HH2-4	SED22-HH2-4	2022 10 18	0.1 - 0.2	-	-	-	-	-	-	< 50	-	< 50	-	-
Federal and BC Standards														
CCME CEQG Interim Sediment Quality (ISQG)[a]				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CCME CEQG Probable Effect Level (PEL)[a]				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
CSR Freshwater Sediment Sensitive (FW)[b]				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Associated Caro file(s): 22J2565, 22J2670, 22J2737, 22J2912, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment Sensitive (FW) standard

[a] Guideline to protect freshwater aquatic life.
[b] Pathways Included: Sensitive Site.

TABLE 4: Summary of Analytical Results for Sediment - Polycyclic Aromatic Hydrocarbons

Sample Location			CC1-1	CC1-2	CC1-3	EH1-1	HH1-1			HH1-4	HH2-1			HH2-2	Federal Guideline		BC Standard
Sample ID			SED22-CC1-1	SED22-CC1-2	SED22-CC1-3	SED22-EH1-1	SED22-HH1-1	SED22-A	QA/QC	SED22-HH1-4	SED22-HH2-1	SED22-B	QA/QC	SED22-HH2-2	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	2022 10 21	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %	2022 10 18	Interim Sediment Quality	Probable Effect Level	Sediment (FW)
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2		0.1 - 0.2	0.1 - 0.15	0.1 - 0.15		0.1 - 0.2	(ISQG)[b]	(PEL)[b]	Sensitive[c]
Parameter	**Units**	**RDL**	**Analytical Results**														
Polycyclic Aromatic Hydrocarbons																	
Naphthalene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0346	0.391	0.24
Methylnaphthalene, 1-	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Methylnaphthalene, 2-	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0202	0.201	0.12
Acenaphthylene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.00587	0.128	0.08
Acenaphthene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.00671	0.0889	0.055
Fluorene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0212	0.144	0.089
Phenanthrene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0419	0.515	0.32
Anthracene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0469	0.245	0.15
Fluoranthene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	0.111	2.355	1.5
Pyrene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	0.053	0.875	0.54
Benz(a)anthracene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0317	0.385	0.24
Chrysene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	0.0571	0.862	0.53
Benzo(b)fluoranthene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Benzo(b+j)fluoranthene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Benzo(k)fluoranthene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Benzo(a)pyrene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.0319	0.782	0.48
Indeno(1,2,3-cd)pyrene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dibenz(a,h)anthracene	µg/g	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	< 0.050[a]	0.00622	0.135	0.084
Benzo(g,h,i)perylene	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Quinoline	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Chloronaphthalene, 2-	µg/g	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a

Associated Caro file(s): 22J2565, 22J2737, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life.
[c] Pathways Included: Sensitive Site.

TABLE 5: Summary of Analytical Results for Sediment - Volatile Organic Compounds

Sample Location			CC1-3	HH1-1			HH2-2	Federal Guideline		BC Standard
Sample ID			SED22-CC1-3	SED22-HH1-1	SED22-A	QA/QC	SED22-HH2-2	CCME CEQG Interim Sediment Quality (ISQG)[a]	CCME CEQG Probable Effect Level (PEL)[a]	CSR Freshwater Sediment (FW) Sensitive[b]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	Duplicate	RPD %	2022 10 18			
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2	0.1 - 0.2		0.05 - 0.1			
Parameter	**Units**	**RDL**	**Analytical Results**							
Volatile Organic Compounds										
Bromodichloromethane [BDCM]	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Bromoform	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Carbon Tetrachloride	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Chlorobenzene	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Chloroform	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dibromochloromethane [DBCM]	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Dibromoethane, 1,2-	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Dichlorobenzene, 1,2-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichlorobenzene, 1,3-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichlorobenzene, 1,4-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloroethane, 1,1-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloroethane, 1,2-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloroethylene, 1,1-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloroethylene, 1,2-cis-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloroethylene, 1,2-trans-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloromethane	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Dichloropropane, 1,2-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dichloropropene, 1,3- (cis+trans)	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Dibromomethane	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Tetrachloroethane, 1,1,2,2-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Tetrachloroethylene	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Trichloroethane, 1,1,1-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Trichloroethane, 1,1,2-	µg/g	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a
Trichloroethylene	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	n/a	n/a	n/a
Trichlorofluoromethane	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a
Vinyl Chloride	µg/g	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a

Associated Caro file(s): 22J2565, 22J2737, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Guideline to protect freshwater aquatic life.
[b] Pathways Included: Sensitive Site.

TABLE 6: Summary of Analytical Results for Sediment - Pesticides

Sample Location			CC1-1	EH1-1	EH2-2	EH2-4	HH1-1			HH1-4	HH2-1			Federal Guideline		BC Standard
Sample ID			SED22-CC1-1	SED22-EH1-1	SED22-EH2-2	SED22-EH2-4	SED22-HH1-1	SED22-A	QA/QC	SED22-HH1-4	SED22-HH2-1	SED22-B	QA/QC	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 21	2022 10 19	2022 10 19	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %	Interim Sediment Quality	Probable Effect Level	Sediment (FW)
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2		0.1 - 0.2	0.1 - 0.15	0.1 - 0.15		(ISQG)[b]	(PEL)[b]	Sensitive[c]
Parameter	**Units**	**RDL**	**Analytical Results**													
Organochlorine Pesticides																
Alachlor	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Aldrin	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Captan	µg/g	0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	*	< 0.0200	< 0.0200	< 0.0200	*	n/a	n/a	n/a
Chlordane (cis+trans)	µg/g	0.0050	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	0.0045	0.00887	0.0055
Chlorothalonil	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
DDT + Metabolites	µg/g	0.0100	< 0.0100[a]	< 0.0100[a]	< 0.0100[a]	< 0.0100[a]	< 0.0100[a]	< 0.0100[a]	*	< 0.0100[a]	< 0.0100[a]	< 0.0100[a]	*	0.00119	0.00477	n/a
Dieldrin	µg/g	0.0050	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	0.00285	0.00667	0.0041
Endosulfan (I+II)	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Endosulfan Sulphate	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Endrin	µg/g	0.0050	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	0.00267	0.0624	0.039
Endrin Aldehyde	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Endrin Ketone	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Heptachlor	µg/g	0.0050	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	n/a	n/a	0.0017
Heptachlor Epoxide	µg/g	0.0050	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	0.0006	0.00274	0.0017
Hexachlorocyclohexane, alpha-	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Hexachlorocyclohexane, beta-	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Hexachlorocyclohexane, delta-	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Hexachlorocyclohexane, gamma-	µg/g	0.0050	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	< 0.0050[a]	< 0.0050[a]	< 0.0050[a]	*	0.00094	0.00138	0.00086
Methoxychlor	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Organophosphorus Pesticides																
Azinphos-Methyl	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Bromacil	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Chlorpyrifos	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Diazinon	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Dichlorvos	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Dimethoate	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Disulfoton	µg/g	0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	*	< 0.0200	< 0.0200	< 0.0200	*	n/a	n/a	n/a
Malathion	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Parathion	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Parathion Methyl	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Phorate	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Ronnel	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Sulfotep	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Temephos	µg/g	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	< 0.0500	*	n/a	n/a	n/a
Terbufos	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a

Associated Caro file(s): 22J2565, 22J2670, 22J2737, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life.
[c] Pathways Included: Sensitive Site.

TABLE 6: Summary of Analytical Results for Sediment - Pesticides

Sample Location			CC1-1	EH1-1	EH2-2	EH2-4	HH1-1			HH1-4	HH2-1			Federal Guideline		BC Standard
Sample ID			SED22-CC1-1	SED22-EH1-1	SED22-EH2-2	SED22-EH2-4	SED22-HH1-1	SED22-A	QA/QC	SED22-HH1-4	SED22-HH2-1	SED22-B	QA/QC	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 21	2022 10 19	2022 10 19	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %	Interim Sediment Quality	Probable Effect Level	Sediment (FW)
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2	0.1 - 0.2		0.1 - 0.2	0.1 - 0.15	0.1 - 0.15		(ISQG)[b]	(PEL)[c]	Sensitive[d]
Parameter	**Units**	**RDL**	**Analytical Results**													
Herbicides																
Bromoxynil	µg/g	0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	*	< 0.0200	< 0.0200	< 0.0200	*	n/a	n/a	n/a
Cyanazine	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Diuron	µg/g	0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	*	< 0.0200	< 0.0200	< 0.0200	*	n/a	n/a	n/a
Linuron	µg/g	0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	< 0.0400	*	< 0.0400	< 0.0400	< 0.0400	*	n/a	n/a	n/a
Metolachlor	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Metribuzin	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Prometon	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Prometryn	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Simazine	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Tebuthiuron	µg/g	0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	< 0.0200	*	< 0.0200	< 0.0200	< 0.0200	*	n/a	n/a	n/a
Triallate	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Trifluralin	µg/g	0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	< 0.0100	*	< 0.0100	< 0.0100	< 0.0100	*	n/a	n/a	n/a
Butachlor	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Fungicides																
Pentachloronitrobenzene [PCNB]	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Miscellaneous Pesticides																
Diclofop-methyl	µg/g	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a
Pyrethroids																
Deltamethrin	µg/g	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	< 0.0500	*	n/a	n/a	n/a
Permethrin (cis+trans)	µg/g	0.0050	< 0.0177	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	*	n/a	n/a	n/a

Associated Caro file(s): 22J2565, 22J2670, 22J2737, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life.
[c] Pathways Included: Sensitive Site.

TABLE 7: Summary of Analytical Results for Sediment - PCBs

Sample Location			EH1-2	HH1-1			HH2-1			Federal Guideline		BC Standard
Sample ID			SED22-EH1-2	SED22-HH1-1	SED22-A	QA/QC	SED22-HH2-1	SED22-B	QA/QC	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	Duplicate	RPD %	2022 10 18	Duplicate	RPD %	Interim Sediment Quality	Probable Effect Level	Sediment (FW)
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2	0.1 - 0.2		0.1 - 0.15	0.1 - 0.15		(ISQG)[b]	(PEL)[b]	Sensitive[c]
Parameter	**Units**	**RDL**	**Analytical Results**									
PCBs												
Aroclor 1016	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1221	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1232	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1242	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1248	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1254	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	0.06	0.34	n/a
Aroclor 1260	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1262	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Aroclor 1268	µg/g	0.040	< 0.040	< 0.040	< 0.040	*	< 0.040	< 0.040	*	n/a	n/a	n/a
Polychlorinated Biphenyls, Total [PCBs]	µg/g	0.120	< 0.120[a]	< 0.120[a]	< 0.120[a]	*	< 0.120[a]	< 0.120[a]	*	0.0341	0.277	0.17

Associated Caro file(s): 22J2565, 22J2737, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life.
[c] Pathways Included: Sensitive Site.

TABLE 8: Summary of Analytical Results for Sediment - Chlorinated Phenols

Sample Location			HH1-1			HH2-1			Federal Guideline		BC Standard
Sample ID			SED22-HH1-1	SED22-A	QA/QC	SED22-HH2-1	SED22-B	QA/QC	CCME CEQG	CCME CEQG	CSR Freshwater
Sample Date (yyyy mm dd)			2022 10 20	Duplicate	RPD %	2022 10 18	Duplicate	RPD %	Interim Sediment	Probable Effect	Sediment (FW)
Depth Interval (m)			0.1 - 0.2	0.1 - 0.2		0.1 - 0.2	0.1 - 0.2		Quality	Level	Sensitive[b]
Parameter	**Units**	**RDL**	**Analytical Results**						(ISQG)[a]	(PEL)[a]	
Chlorinated Phenols											
Chlorophenol, 2-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Chlorophenol, 3-&4-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Dichlorophenol, 2,3-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Dichlorophenol, 2,4-&2,5-	µg/g	0.030	< 0.030	< 0.030	*	< 0.030	< 0.030	*	n/a	n/a	n/a
Dichlorophenol, 2,6-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Dichlorophenol, 3,4-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Dichlorophenol, 3,5-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Methylphenol, 4-chloro-3-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Trichlorophenol, 2,3,4-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Trichlorophenol, 2,3,5-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Trichlorophenol, 2,3,6-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Trichlorophenol, 2,4,5-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Trichlorophenol, 2,4,6-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Trichlorophenol, 3,4,5-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Tetrachlorophenol, 2,3,4,6-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Tetrachlorophenol, 2,3,4,5 & 2,3,5,6-	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	n/a
Pentachlorophenol [PCP]	µg/g	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	*	n/a	n/a	0.4

Associated Caro file(s): 22J2565, 22J2737.

All terms defined within the body of SNC-Lavalin's report.

< Denotes concentration less than indicated detection limit.

- Denotes analysis not conducted.

n/a Denotes no applicable standard/guideline.

QA/QC RPD Denotes quality assurance/quality control relative percent difference

* RPDs are not calculated where one or more concentrations are less than five times RDL.

RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment (FW) Sensitive standard

[a] Guideline to protect freshwater aquatic life.

[b] Pathways Included: Sensitive Site.

TABLE 9: Summary of Analytical Results for Sediment - Grain Size

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Depth Interval (m)	Grain Size >200 mesh %
Reported Detection Limit				0.1
CC1-1	SED22-CC1-1	2022 10 21	0.1 - 0.2	93.9
CC1-2	SED22-CC1-2	2022 10 20	0.1 - 0.2	92.4
CC1-3	SED22-CC1-3	2022 10 21	0.1 - 0.2	9.3
CC2-1	SED22-CC2-1	2022 10 19	0.1 - 0.2	93.1
EH1-1	SED22-EH1-1	2022 10 19	0.1 - 0.2	95.9
EH1-2	SED22-EH1-2	2022 10 21	0.1 - 0.2	96.3
EH1-3	SED22-EH1-3	2022 10 21	0.1 - 0.2	87.0
EH1-4	SED22-EH1-4	2022 10 20	0.1 - 0.2	41.1
EH1-5	SED22-EH1-5	2022 10 21	0.1 - 0.2	2.0
EH2-1	SED22-EH2-1	2022 10 18	0.05 - 0.1	93.6
EH2-2	SED22-EH2-2	2022 10 19	0.1 - 0.2	96.6
EH2-3	SED22-EH2-3	2022 10 18	0.1 - 0.2	99.0
EH2-4	SED22-EH2-4	2022 10 19	0.1 - 0.2	98.6
EH2-5	SED22-EH2-5	2022 10 19	0.1 - 0.2	98.0
HH1-1	SED22-HH1-1	2022 10 20	0.1 - 0.2	87.5
	SED22-A	Duplicate	0.1 - 0.2	87.8
	QA/QC RPD%			0
HH1-2	SED22-HH1-2	2022 10 20	0.1 - 0.2	98.7
HH1-3	SED22-HH1-3	2022 10 21	0.1 - 0.2	38.8
HH1-4	SED22-HH1-4	2022 10 20	0.1 - 0.2	47.9
HH1-5	SED22-HH1-5	2022 10 21	0.1 - 0.2	8.9
HH2-1	SED22-HH2-1	2022 10 18	0.1 - 0.15	99.9
	SED22-B	Duplicate	0.1 - 0.15	98.6
	QA/QC RPD%			1
HH2-2	SED22-HH2-2	2022 10 18	0.05 - 0.1	99.0
HH2-4	SED22-HH2-4	2022 10 18	0.1 - 0.2	98.3
HH2-5	SED22-HH2-5	2022 10 19	0.1 - 0.2	87.3
Federal and BC Standards				
CCME CEQG Interim Sediment Quality (ISQG)[a]				n/a
CCME CEQG Probable Effect Level (PEL)[a]				n/a
CSR Freshwater Sediment Sensitive (FW)[b]				n/a

Associated Caro file(s): 22J2565, 22J2670, 22J2737, 22J2912, 22J2913.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than CCME CEQG Interim Sediment Quality (ISQG) Guideline
SHADED	Concentration greater than CCME CEQG Probable Effect Level (PEL) Guideline
SHADOW	Concentration greater than CSR Freshwater Sediment Sensitive (FW) standard

[a] Guideline to protect freshwater aquatic life.
[b] Pathways Included: Sensitive Site.

TABLE 10A: Summary of Analytical Results for Surface Water - Total Metals

Sample Location			CC1-1	CC1-3	CC2-1	EH1-1	HH1-1			HH1-2	HH1-3	BC Guideline					
Sample ID			SW22-CC1-1-221021	SW22-CC1-3-221021	SW22-CC2-1-221019	SW22-EH1-1-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-2-221020	SW22-HH1-3-221021	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG
Sample Date (yyyy mm dd)			2022 10 21	2022 10 21	2022 10 19	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 21	Wildlife Long-Term Average (WL)[a]	Wildlife Short-term Maximum (WL)[b]	Irrigation Water Long-Term Average (IW)[c]	Irrigation Water Short-term Maximum (IW)[d]	Livestock Water Long-Term Average (LW)[e]	Livestock Water Short-term Maximum (LW)[f]
Parameter	**Units**	**RDL**	**Analytical Results**														
Physical Parameters																	
pH (Field)	pH	0.10	8.47	8.42	8.50	8.51	8.05	8.05	*	8.48	8.85	n/a	n/a	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5
Total Hardness	mg/L	0.500	159	156	81.8	130	138	137	1	140	155	n/a	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	3.96	2.42	0.19	0.87	0.60	1.42	81	0.65	-	n/a	n/a	n/a	n/a	n/a	n/a
Total Dissolved Solids	mg/L	15	213	221	144	193	162	170	5	237	200	n/a	n/a	500[j]	n/a	1,000-3,000[n]	n/a
Total Suspended Solids	mg/L	2.0	11.0	10.2	< 2.0	2.2	< 2.0	2.0	*	< 2.0	3.2	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]
Total Metals																	
Aluminum	mg/L	0.0050	0.191	0.196	0.0098	0.0827	0.0692	0.0716	3	0.0231	0.0476	n/a	5	n/a	5	n/a	5
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Arsenic	mg/L	0.00050	0.00063	0.00071	< 0.00050	0.00110	0.00091	0.00092	*	0.00080	0.00073	n/a	0.025	n/a	0.1	n/a	0.025
Barium	mg/L	0.0050	0.0328	0.0332	0.0416	0.0301	0.0401	0.0407	1	0.0392	0.0370	n/a	n/a	n/a	n/a	n/a	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	n/a	n/a	0.1	n/a	0.1	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	5	n/a	0.5[j]	n/a	5	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	n/a	n/a	n/a	0.0051	n/a	0.08
Calcium	mg/L	0.20	43.5	42.1	28.3	34.2	39.0	35.9	8	43.4	41.2	n/a	n/a	n/a	n/a	n/a	n/a
Chromium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	n/a	n/a	0.0049 (Cr(+3))	n/a	0.05	n/a
Cobalt	mg/L	0.00010	0.00016	0.00018	< 0.00010	0.00010	0.00011	0.00010	*	< 0.00010	< 0.00010	n/a	n/a	0.05	n/a	1	n/a
Copper	mg/L	0.00040	0.00177	0.00185	< 0.00040	0.00160	0.00158	0.00157	*	0.00159	0.00145	n/a	3	n/a	0.2	n/a	0.3
Iron	mg/L	0.010	0.197	0.215	0.024	0.107	0.101	0.103	2	0.042	0.062	n/a	n/a	n/a	n/a	n/a	n/a
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	n/a	1	n/a	0.2[m]	n/a	0.1
Lithium	mg/L	0.00010	0.00118	0.00116	0.00032	0.00152	0.00134	0.00127	5	0.00131	0.00116	n/a	n/a	0.75[j]	n/a	n/a	n/a
Magnesium	mg/L	0.010	12.5	12.6	3.55	11.6	11.8	10.9	8	13.5	13.4	n/a	n/a	n/a	n/a	n/a	n/a
Manganese	mg/L	0.00020	0.0145	0.0156	0.0105	0.0385	0.0405	0.0402	1	0.0152	0.0141	n/a	n/a	0.2	n/a	n/a	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000040[o]	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	0.00002[h]	n/a	n/a	0.002	n/a	0.003
Molybdenum	mg/L	0.00010	0.00201	0.00200	0.0076	0.00173	0.00169	0.00157	7	0.00221	0.00202	0.034[i]	n/a	0.01[k]	0.05[m]	0.016[i]	n/a
Nickel	mg/L	0.00040	0.00075	0.00078	< 0.00040	0.00105	0.00100	0.00086	*	0.00064	0.00061	n/a	n/a	0.2	n/a	1	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	<0.000 50	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Potassium	mg/L	0.10	2.19	2.23	0.95	3.01	2.85	2.80	2	2.86	2.55	n/a	n/a	n/a	n/a	n/a	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	0.002	n/a	0.01	n/a	0.03	n/a
Silicon	mg/L	1.0	3.9	4.1	4.1	1.9	2.4	2.5	*	2.9	3.4	n/a	n/a	n/a	n/a	n/a	n/a
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	< 0.000050	n/a	n/a	n/a	n/a	n/a	n/a
Sodium	mg/L	0.10	12.8	12.7	5.71	10.4	11.2	10.9	3	13.6	12.9	n/a	n/a	n/a	n/a	n/a	n/a
Strontium	mg/L	0.0010	0.210	0.206	0.161	0.178	0.198	0.200	1	0.214	0.210	n/a	n/a	n/a	n/a	n/a	n/a
Sulfur	mg/L	3.0	8.0	7.6	< 3.0	7.8	8.5	9.0	*	9.5	8.8	n/a	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	n/a	n/a	n/a	n/a	n/a	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	< 0.000020	n/a	n/a	n/a	n/a	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	0.0083	0.0090	< 0.005	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	*	< 0.0002	< 0.0002	n/a	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000982	0.000992	0.00026	0.000602	0.000648	0.000604	7	0.000988	0.000914	n/a	n/a	0.01	n/a	0.2	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	n/a	n/a	0.1	n/a	0.1	n/a
Zinc	mg/L	0.0040	< 0.0040[a]	< 0.0040[a]	< 0.0040	< 0.0040[a]	< 0.0040[a]	< 0.0040[a]	*	< 0.0040[a]	< 0.0040[a]	n/a	n/a	5 (pH>=7.0)[l]	n/a	2	n/a
Zirconium	mg/L	0.00010	0.00022	0.00019	< 0.00010	0.00014	0.00011	0.00012	*	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline varies with background concentration. If background value available, please check guideline.
[h] Total Mercury guideline is based on the % of MethylMercury present. WQG = 0.0001 / (MeHg/total Hg), where MeHg is mass (or concentration) of methyl mercury and THg. Guideline shown assumes MeHg<0.5% of Total Hg.
[i] Guideline is livestock dependent.
[j] Guideline is crop dependent.
[k] Guideline is crop and soil dependent.
[l] Guideline is pH dependent.
[m] Guideline is soil dependent.
[n] Guideline is species dependent.
[o] Exceeded hold time for re-analysis with lower RDL.

TABLE 10A: Summary of Analytical Results for Surface Water - Total Metals

Sample Location			HH1-4	HH1-5	HH2-1			HH2-2	HH2-4	HH2-5	BC Guideline					
Sample ID			SW22-HH1-4-221020	SW22-HH1-5-221021	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	SW22-HH2-4-221018	SW22-HH2-5-221019	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG
Sample Date (yyyy mm dd)			2022 10 20	2022 10 21	2022 10 18	Duplicate	RPD %	2022 10 18	2022 10 18	2022 10 19	Wildlife Long-Term Average (WL)[a]	Wildlife Short-term Maximum (WL)[b]	Irrigation Water Long-Term Average (IW)[c]	Irrigation Water Short-term Maximum (IW)[d]	Livestock Water Long-Term Average (LW)[e]	Livestock Water Short-term Maximum (LW)[f]
Parameter	**Units**	**RDL**	**Analytical Results**													
Physical Parameters																
pH (Field)	pH	0.10	8.51	8.43	7.85	7.85	0	8.44	8.44	7.83	n/a	n/a	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5
Total Hardness	mg/L	0.500	151	158	144	141	2	140	111	50.7	n/a	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	1.08	2.75	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a
Total Dissolved Solids	mg/L	15	223	225	161	168	4	164	142	67	n/a	n/a	500[j]	n/a	1,000-3,000[n]	n/a
Total Suspended Solids	mg/L	2.0	9.6	7.8	< 2.0	< 2.0	*	< 2.0	< 2.0	< 2.0	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]
Total Metals																
Aluminum	mg/L	0.0050	0.265	0.203	0.0133	0.0150	*	0.0114	0.0100	0.0102	n/a	5	n/a	5	n/a	5
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Arsenic	mg/L	0.00050	0.00067	0.00069	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	0.025	n/a	0.1	n/a	0.025
Barium	mg/L	0.0050	0.0356	0.0323	0.0594	0.0573	4	0.0568	0.0483	0.0464	n/a	n/a	n/a	n/a	n/a	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	0.1	n/a	0.1	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	< 0.0500	5	n/a	0.5[j]	n/a	5	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	n/a	n/a	n/a	0.0051	n/a	0.08
Calcium	mg/L	0.20	41.3	42.7	44.8	44.9	0	45.3	35.3	17.3	n/a	n/a	n/a	n/a	n/a	n/a
Chromium	mg/L	0.00050	0.00059	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	0.0049 (Cr(+3))	n/a	0.05	n/a
Cobalt	mg/L	0.00010	0.00020	0.00016	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	0.05	n/a	1	n/a
Copper	mg/L	0.00040	0.00190	0.00187	0.00061	0.00060	*	0.00060	0.00049	< 0.00040	n/a	3	n/a	0.2	n/a	0.3
Iron	mg/L	0.010	0.268	0.200	0.059	0.060	2	0.019	0.036	0.037	n/a	n/a	n/a	n/a	n/a	n/a
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	1	n/a	0.2[m]	n/a	0.1
Lithium	mg/L	0.00010	0.00115	0.00120	0.00035	0.00038	*	0.00033	0.00023	0.00012	n/a	n/a	0.75[j]	n/a	n/a	n/a
Magnesium	mg/L	0.010	12.7	12.1	7.87	7.76	1	7.82	5.52	1.83	n/a	n/a	n/a	n/a	n/a	n/a
Manganese	mg/L	0.00020	0.0194	0.0148	0.0321	0.0317	1	0.00371	0.0157	0.0117	n/a	n/a	0.2	n/a	n/a	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	0.00002[h]	n/a	n/a	0.002	n/a	0.003
Molybdenum	mg/L	0.00010	0.00188	0.00209	0.00102	0.00100	2	0.00099	0.00083	0.00045	0.034[i]	n/a	0.01[k]	0.05[m]	0.016[i]	n/a
Nickel	mg/L	0.00040	0.00090	0.00071	< 0.00040	< 0.00040	*	< 0.00040	< 0.00040	< 0.00040	n/a	n/a	0.2	n/a	1	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Potassium	mg/L	0.10	2.34	2.16	1.21	1.17	3	1.15	1.03	0.78	n/a	n/a	n/a	n/a	n/a	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	0.002	n/a	0.01	n/a	0.03	n/a
Silicon	mg/L	1.0	3.9	3.9	4.4	4.5	*	4.4	4.1	3.8	n/a	n/a	n/a	n/a	n/a	n/a
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	< 0.000050	< 0.000050	n/a	n/a	n/a	n/a	n/a	n/a
Sodium	mg/L	0.10	12.3	12.4	8.63	8.50	2	8.51	7.11	4.17	n/a	n/a	n/a	n/a	n/a	n/a
Strontium	mg/L	0.0010	0.207	0.208	0.231	0.226	2	0.229	0.186	0.122	n/a	n/a	n/a	n/a	n/a	n/a
Sulfur	mg/L	3.0	8.0	8.0	4.2	4.2	*	4.0	< 3.0	< 3.0	n/a	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	n/a	n/a	n/a	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	< 0.000020	< 0.000020	n/a	n/a	n/a	n/a	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	0.0117	0.0095	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	*	< 0.0002	< 0.0002	< 0.0002	n/a	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000914	0.000995	0.000663	0.000644	3	0.000662	0.000457	0.000064	n/a	n/a	0.01	n/a	0.2	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	0.1	n/a	0.1	n/a
Zinc	mg/L	0.0040	< 0.0040[a]	< 0.0040[a]	< 0.0040[a]	< 0.0040[a]	*	< 0.0040[a]	< 0.0040[a]	< 0.0040[a]	n/a	n/a	5 (pH>=7.0)[l]	n/a	2	n/a
Zirconium	mg/L	0.00010	0.00015	0.00017	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline varies with background concentration. If background value available, please check guideline.
[h] Total Mercury guideline is based on the % of MethylMercury present. WQG = 0.0001 / (MeHg/total Hg), where MeHg is mass (or concentration) of methyl mercury and THg. Guideline shown assumes MeHg<0.5% of Total Hg.
[i] Guideline is livestock dependent.
[j] Guideline is crop dependent.
[k] Guideline is crop and soil dependent.
[l] Guideline is pH dependent.
[m] Guideline is soil dependent.
[n] Guideline is species dependent.
[o] Exceeded hold time for re-analysis with lower RDL.

TABLE 10B: Summary of Analytical Results for Surface Water - Total Metals

Sample Location			CC1-1	CC1-3	CC2-1	EH1-1	HH1-1			HH1-2	BC Guideline		Federal Guideline		
Sample ID			SW22-CC1-1-221021	SW22-CC1-3-221021	SW22-CC2-1-221019	SW22-EH1-1-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-2-221020	BCWQG Aquatic Life	BCWQG Aquatic Life	CCME CEQG Aquatic Life	Guidelines for Canadian Drinking Water Quality	Guidelines for Canadian Recreational Water Quality
Sample Date (yyyy mm dd)			2022 10 21	2022 10 21	2022 10 19	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	Long-Term Chronic (AW)[a]	Short-Term Acute (AW)[b]	(AW)[c]	(GCDWQ)[d] MAC	
Parameter	**Units**	**RDL**	**Analytical Results**												
Physical Parameters															
pH	pH	0.10	8.47	8.42	8.57	8.51	8.05	8.05	*	8.48	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	n/a	5.0 - 11.0
Total Hardness	mg/L	0.500	159	156	81.8	130	138	137	1	140	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	**3.96**	**2.42**	0.19	0.87	0.60	**1.42**	81	0.65	n/a	n/a	n/a	1	50
Total Dissolved Solids	mg/L	15	213	221	144	193	162	170	5	237	n/a	n/a	n/a	n/a	n/a
Total Suspended Solids	mg/L	2.0	11.0	10.2	< 2.0	2.2	< 2.0	2.0	*	< 2.0	n/a	n/a	n/a	n/a	n/a
Total Metals															
Aluminum	mg/L	0.0050	**0.191**	**0.196**	0.0098	0.0827	0.0692	0.0716	3	0.0231	n/a	n/a	0.1(pH>=6.5)[h]	2.9	n/a
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	0.009[f]	n/a	n/a	n/a	n/a
Arsenic	mg/L	0.00050	0.00063	0.00071	< 0.00050	0.00110	0.00091	0.00092	*	0.00080	n/a	0.005	0.005	n/a	n/a
Barium	mg/L	0.0050	0.0328	0.0332	0.0416	0.0301	0.0401	0.0407	1	0.0392	1	n/a	n/a	2.0	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	0.13	n/a	n/a	n/a	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	1	n/a	1.5	n/a	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	n/a	n/a	0.0001- 0.0002[i]	0.007	n/a
Calcium	mg/L	0.20	43.5	42.1	28.3	34.2	39.0	35.9	8	43.4	n/a	n/a	n/a	n/a	n/a
Chromium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	0.001 (Cr(+6))	n/a	0.001[g]	0.05	n/a
Cobalt	mg/L	0.00010	0.00016	0.00018	< 0.00010	0.00010	0.00011	0.00010	*	< 0.00010	0.004	0.11	n/a	n/a	n/a
Copper	mg/L	0.00040	0.00177	0.00185	< 0.00040	0.00160	0.00158	0.00157	*	0.00159	n/a	n/a	0.002 -0.004[g]	2	n/a
Iron	mg/L	0.010	0.197	0.215	0.024	0.107	0.101	0.103	2	0.042	n/a	1	0.3	n/a	n/a
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	0.005 - 0.009[g]	0.034 - 0.147[g]	0.001 - 0.006[g]	0.005	n/a
Lithium	mg/L	0.00010	0.00118	0.00116	0.00032	0.00152	0.00134	0.00127	5	0.00131	n/a	n/a	n/a	n/a	n/a
Magnesium	mg/L	0.010	12.5	12.6	3.55	11.6	11.8	10.9	8	13.5	n/a	n/a	n/a	n/a	n/a
Manganese	mg/L	0.00020	0.0145	0.0156	0.0105	0.0385	0.0405	0.0402	1	0.0152	0.828 - 1.305[g]	1.099 - 2.292[g]	n/a	0.12	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000040[j]	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	0.00002	n/a	0.000026	n/a	n/a
Molybdenum	mg/L	0.00010	0.00201	0.00200	0.00076	0.00173	0.00169	0.00157	7	0.00221	8	46	0.073	n/a	n/a
Nickel	mg/L	0.00040	0.00075	0.00078	< 0.00040	0.00105	0.00100	0.00086	*	0.00064	0.025 - 0.136[g]	n/a	0.025 - 0.136[g]	n/a	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a
Potassium	mg/L	0.10	2.19	2.23	0.95	3.01	2.85	2.80	2	2.86	n/a	n/a	n/a	n/a	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	0.002	n/a	0.001	n/a	n/a
Silicon	mg/L	1.0	3.9	4.1	4.1	1.9	2.4	2.5	*	2.9	n/a	n/a	n/a	n/a	n/a
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	0.00005 -0.0015[g]	0.0001 - 0.003[g]	0.00025	n/a	n/a
Sodium	mg/L	0.10	12.8	12.7	5.71	10.4	11.2	10.9	3	13.6	n/a	n/a	n/a	n/a	n/a
Strontium	mg/L	0.0010	0.210	0.206	0.161	0.178	0.198	0.200	1	0.214	n/a	n/a	n/a	n/a	n/a
Sulfur	mg/L	3.0	8.0	7.6	< 3	7.8	8.5	9.0	*	9.5	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	n/a	n/a	n/a	n/a	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	0.0008	n/a	0.0008	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	0.0083	0.0090	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	*	< 0.0002	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000982	0.000992	0.00026	0.000602	0.000648	0.000604	7	0.000988	0.0085	n/a	0.015	0.02	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	n/a	n/a	n/a	n/a
Zinc	mg/L	0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	0.0075 - 0.059[g]	0.033 - 0.085[g]	n/a	n/a	n/a
Zirconium	mg/L	0.00010	0.00022	0.00019	< 0.00010	0.00014	0.00011	0.00012	*	< 0.00010	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guideline to protect recreation water quality.
[f] Guideline is for Antimony (III).
[g] Guideline is hardness dependent.
[h] Guideline is pH dependent.
[i] Individual guideline exist for Cr +3 and Cr +6. Reported value represents more stringent guideline.
[j] Sample analyzed after hold time expired, detection limit exceeds regulatory standard.

TABLE 10B: Summary of Analytical Results for Surface Water - Total Metals

Sample Location			HH1-3	HH1-4	HH1-5	HH2-1			HH2-2	HH2-4	HH2-5	BC Guideline		Federal Guideline		
Sample ID			SW22-HH1-3-221021	SW22-HH1-4-221020	SW22-HH1-5-221021	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	SW22-HH2-4-221018	SW22-HH2-5-221019	BCWQG Aquatic Life	BCWQG Aquatic Life	CCME CEQG Aquatic Life	Guidelines for Canadian Drinking Water Quality	Guidelines for Canadian Recreational Water Quality
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	2022 10 21	2022 10 18	Duplicate	RPD %	2022 10 18	2022 10 18	2022 10 19	Long-Term Chronic (AW)[b]	Short-Term Acute (AW)[c]	(AW)[d]	(GCDWQ)[e] MAC	Water Quality[f]
Parameter	**Units**	**RDL**	**Analytical Results**													
Physical Parameters																
pH	pH	0.10	8.85	8.51	8.43	7.85	7.85	0	8.44	8.44	7.83	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	n/a	5.0 - 11.0
Total Hardness	mg/L	0.500	155	151	158	144	141	2	140	111	50.7	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	-	**1.08**	**2.75**	-	-	-	-	-	-	n/a	n/a	n/a	1	50
Total Dissolved Solids	mg/L	15	200	223	225	161	168	4	164	142	67	n/a	n/a	n/a	n/a	n/a
Total Suspended Solids	mg/L	2.0	3.2	9.6	7.8	< 2.0	< 2.0	*	< 2.0	< 2.0	< 2.0	n/a	n/a	n/a	n/a	n/a
Total Metals																
Aluminum	mg/L	0.0050	0.0476	**0.265**	**0.203**	0.0133	0.0150	*	0.0114	0.0100	0.0102	n/a	n/a	0.1(pH>=6.5)[h]	2.9	n/a
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	0.009[f]	n/a	n/a	n/a	n/a
Arsenic	mg/L	0.00050	0.00073	0.00067	0.00069	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	0.005	0.005	n/a	n/a
Barium	mg/L	0.0050	0.0370	0.0356	0.0323	0.0594	0.0573	4	0.0568	0.0483	0.0464	1	n/a	n/a	2.0	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	0.13	n/a	n/a	n/a	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	< 0.0500	1	n/a	1.5	n/a	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	n/a	n/a	0.0001- 0.0002[i]	0.007	n/a
Calcium	mg/L	0.20	41.2	41.3	42.7	44.8	44.9	0	45.3	35.3	17.3	n/a	n/a	n/a	n/a	n/a
Chromium	mg/L	0.00050	< 0.00050	0.00059	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	0.001 (Cr(+6))	n/a	0.001[g]	0.05	n/a
Cobalt	mg/L	0.00010	< 0.00010	0.00020	0.00016	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	0.004	0.11	n/a	n/a	n/a
Copper	mg/L	0.00040	0.00145	0.00190	0.00187	0.00061	0.00060	*	0.00060	0.00049	< 0.00040	n/a	n/a	0.002 -0.004[g]	2	n/a
Iron	mg/L	0.010	0.062	0.268	0.200	0.059	0.060	2	0.019	0.036	0.037	n/a	1	0.3	n/a	n/a
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	0.005 - 0.009[g]	0.034 - 0.147[g]	0.001 - 0.006[g]	0.005	n/a
Lithium	mg/L	0.00010	0.00116	0.00115	0.00120	0.00035	0.00038	*	0.00033	0.00023	0.00012	n/a	n/a	n/a	n/a	n/a
Magnesium	mg/L	0.010	13.4	12.7	12.1	7.87	7.76	1	7.82	5.52	1.83	n/a	n/a	n/a	n/a	n/a
Manganese	mg/L	0.00020	0.0141	0.0194	0.0148	0.0321	0.0317	1	0.00371	0.0157	0.0117	0.828 - 1.305[g]	1.099 - 2.292[g]	n/a	0.12	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	0.00002	n/a	0.000026	n/a	n/a
Molybdenum	mg/L	0.00010	0.00202	0.00188	0.00209	0.00102	0.00100	2	0.00099	0.00083	0.00045	8	46	0.073	n/a	n/a
Nickel	mg/L	0.00040	0.00061	0.00090	0.00071	< 0.00040	< 0.00040	*	< 0.00040	< 0.00040	< 0.00040	0.025 - 0.136[g]	n/a	0.025 - 0.136[g]	n/a	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Potassium	mg/L	0.10	2.55	2.34	2.16	1.21	1.17	3	1.15	1.03	0.78	n/a	n/a	n/a	n/a	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	0.002	n/a	0.001	n/a	n/a
Silicon	mg/L	1.0	3.4	3.9	3.9	4.4	4.5	*	4.4	4.1	3.8	n/a	n/a	n/a	n/a	n/a
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	< 0.000050	< 0.000050	0.00005 -0.0015[g]	0.0001 - 0.003[g]	0.00025	n/a	n/a
Sodium	mg/L	0.10	12.9	12.3	12.4	8.63	8.50	2	8.51	7.11	4.17	n/a	n/a	n/a	n/a	n/a
Strontium	mg/L	0.0010	0.210	0.207	0.208	0.231	0.226	2	0.229	0.186	0.122	n/a	n/a	n/a	n/a	n/a
Sulfur	mg/L	3.0	8.8	8.0	8.0	4.2	4.2	*	4.0	< 3.0	< 3.0	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	n/a	n/a	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	< 0.000020	< 0.000020	0.0008	n/a	0.0008	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	< 0.0050	0.0117	0.0095	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	*	< 0.0002	< 0.0002	< 0.0002	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000914	0.000914	0.000995	0.000663	0.000644	3	0.000662	0.000457	0.000064	0.0085	n/a	0.015	0.02	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a
Zinc	mg/L	0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	< 0.0040	< 0.0040	0.0075 - 0.059[g]	0.033 - 0.085[g]	n/a	n/a	n/a
Zirconium	mg/L	0.00010	< 0.00010	0.00015	0.00017	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guideline to protect recreation water quality.
[f] Guideline is for Antimony (III).
[g] Guideline is hardness dependent.
[h] Guideline is pH dependent.
[i] Individual guideline exist for Cr +3 and Cr +6. Reported value represents more stringent guideline.
[j] Sample analyzed after hold time expired, detection limit exceeds regulatory standard.

TABLE 11A: Summary of Analytical Results for Surface Water - Dissolved Metals

Sample Location			CC1-1	CC1-3	CC2-1	EH1-1	HH1-1			HH1-2	BC Guideline					
Sample ID			SW22-CC1-1-221021	SW22-CC1-3-221021	SW22-CC2-1-221019	SW22-EH1-1-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-2-221020	BCWQG Wildlife Long-Term Average (WL)[a]	BCWQG Wildlife Short-term Maximum (WL)[b]	BCWQG Irrigation Water Long-Term Average (IW)[c]	BCWQG Irrigation Water Short-term Maximum (IW)[d]	BCWQG Livestock Water Long-Term Average (LW)[e]	BCWQG Livestock Water Short-term Maximum (LW)[f]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 21	2022 10 19	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20						
Parameter	**Units**	**RDL**	**Analytical Results**													
Physical Parameters																
pH (Field)	pH	0.10	8.47	8.42	8.57	8.51	8.05	8.05	*	8.48	n/a	n/a	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5
Total Hardness	mg/L	0.500	159	156	81.8	130	138	137	1	140	n/a	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	3.96	2.42	0.19	0.87	0.60	1.42	81	0.65	n/a	n/a	n/a	n/a	n/a	n/a
Total Dissolved Solids	mg/L	15	213	221	144	193	162	170	5	237	n/a	n/a	500[h]	n/a	1,000 - 3,000[m]	n/a
Total Suspended Solids	mg/L	2.0	11.0	10.2	< 2.0	2.2	< 2.0	2.0	*	< 2.0	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]
Dissolved Metals																
Dissolved Aluminum	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	5	n/a	5	n/a	5
Dissolved Calcium	mg/L	0.20	43.2	42.6	26.3	31.9	35.1	34.9	1	35.3	n/a	n/a	n/a	n/a	1,000	n/a
Dissolved Iron	mg/L	0.010	< 0.010	< 0.010	0.011	0.023	0.023	0.023	*	0.015	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Magnesium	mg/L	0.010	12.5	11.9	3.89	12.1	12.2	12.2	0	12.5	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Manganese	mg/L	0.00020	0.00392	0.00464	0.00966	0.0329	0.0335	0.0337	1	0.0120	n/a	n/a	0.2	n/a	n/a	n/a
Dissolved Potassium	mg/L	0.10	2.18	2.15	0.91	2.85	2.67	2.69	1	2.62	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Sodium	mg/L	0.10	12.5	12.0	6.01	11.5	12.3	12.4	1	12.6	n/a	n/a	n/a	n/a	n/a	n/a
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Arsenic	mg/L	0.00050	0.00071	0.00070	< 0.00050	0.00103	0.00089	0.00089	*	0.00079	n/a	0.025	n/a	0.1	n/a	0.025
Barium	mg/L	0.0050	0.0329	0.0338	0.0475	0.0327	0.0430	0.0416	3	0.0425	n/a	n/a	n/a	n/a	n/a	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	0.1	n/a	0.1	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	5	n/a	0.5[h]	n/a	5	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	n/a	n/a	n/a	0.0051	n/a	0.08
Chromium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	n/a	n/a	0.0049 (Cr(+3))	n/a	0.05	n/a
Cobalt	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	0.05	n/a	1	n/a
Copper	mg/L	0.00040	0.00133	0.00123	< 0.00040	0.00140	0.00132	0.00137	*	0.00142	n/a	0.3	n/a	0.2	n/a	0.3
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	0.1	n/a	0.2[l]	n/a	0.1
Lithium	mg/L	0.00010	0.00114	0.00108	0.00033	0.00167	0.00144	0.00147	2	0.00145	n/a	n/a	0.75[h]	n/a	n/a	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000040[o]	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	0.00002[h]	n/a	n/a	0.002	n/a	0.003
Molybdenum	mg/L	0.00010	0.00200	0.00196	0.00076	0.00167	0.00156	0.00155	1	0.00202	0.034[i]	n/a	0.01[i]	0.05[l]	0.016[i]	n/a
Nickel	mg/L	0.00040	0.00043	0.00041	< 0.00040	0.00077	0.00067	0.00075	*	0.00060	n/a	n/a	0.2	n/a	1	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	0.002	n/a	n/a	0.01	n/a	0.03
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	n/a	n/a	n/a	n/a	n/a	n/a
Strontium	mg/L	0.0010	0.214	0.206	0.169	0.187	0.203	0.206	1	0.217	n/a	n/a	n/a	n/a	n/a	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	n/a	n/a	n/a	n/a	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	*	< 0.0010	n/a	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000951	0.000946	0.000248	0.000553	0.000578	0.000573	1	0.000887	n/a	n/a	0.01	n/a	0.2	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	n/a	0.1	n/a	0.1	n/a
Zinc	mg/L	0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	n/a	n/a	5 (pH>=7.0)[h]	n/a	2	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Silicon	mg/L	1.0	3.6	3.8	4.3	1.7	2.2	2.2	*	2.8	n/a	n/a	n/a	n/a	n/a	n/a
Sulphur	mg/L	3.0	7.8	7.7	< 3.0	7.8	8.2	8.2	*	8.8	n/a	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	n/a	n/a	n/a	n/a	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Zirconium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline varies with background concentration.
[h] Guideline is crop dependent.
[i] Guideline is livestock dependent.
[j] Guideline is crop and soil dependent.
[k] Guideline is pH dependent.
[l] Guideline is soil dependent.
[m] Guideline is species dependent.
[n] Guideline is for dissolved concentrations.
[o] Exceeded hold time for re-analysis with lower RDL.

TABLE 11A: Summary of Analytical Results for Surface Water - Dissolved Metals

Sample Location			HH1-3	HH1-4	HH1-5	HH2-1			HH2-2	HH2-4	HH2-5	BC Guideline					
Sample ID			SW22-HH1-3-221021	SW22-HH1-4-221020	SW22-HH1-5-221021	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	SW22-HH2-4-221018	SW22-HH2-5-221019	BCWQG Wildlife Long-Term Average (WL)[a]	BCWQG Wildlife Short-term Maximum (WL)[b]	BCWQG Irrigation Water Long-Term Average (IW)[c]	BCWQG Irrigation Water Short-term Maximum (IW)[d]	BCWQG Livestock Water Long-Term Average (LW)[e]	BCWQG Livestock Water Short-term Maximum (LW)[f]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	2022 10 21	2022 10 18	Duplicate	RPD %	2022 10 18	2022 10 18	2022 10 19						
Parameter	**Units**	**RDL**	**Analytical Results**														
Physical Parameters																	
pH (Field)	pH	0.10	8.85	8.51	8.43	7.85	7.85	0	8.44	8.44	7.83	n/a	n/a	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5	5.0 - 9.5
Total Hardness	mg/L	0.500	155	151	158	144	141	2	140	111	50.7	n/a	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	-	1.08	2.75	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a
Total Dissolved Solids	mg/L	15	200	223	225	161	168	4	164	142	67	n/a	n/a	500[h]	n/a	1,000 - 3,000[m]	n/a
Total Suspended Solids	mg/L	2.0	3.2	9.6	7.8	< 2.0	< 2.0	*	< 2.0	< 2.0	< 2.0	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]	n/a[g]
Dissolved Metals																	
Dissolved Aluminum	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	0.0052	n/a	5	n/a	5	n/a	5
Dissolved Calcium	mg/L	0.20	40.9	41.4	43.5	44.1	42.8	3	43.0	35.5	17.4	n/a	n/a	n/a	n/a	1,000	n/a
Dissolved Iron	mg/L	0.010	0.012	< 0.010	< 0.010	0.036	0.037	*	< 0.010	0.025	0.017	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Magnesium	mg/L	0.010	12.8	11.7	12.0	8.24	8.25	0	7.95	5.41	1.73	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Manganese	mg/L	0.00020	0.00614	0.00755	0.00394	0.0360	0.0359	0	0.00270	0.0121	0.0112	n/a	n/a	0.2	n/a	n/a	n/a
Dissolved Potassium	mg/L	0.10	2.55	2.28	2.15	1.20	1.21	1	1.13	1.05	0.78	n/a	n/a	n/a	n/a	n/a	n/a
Dissolved Sodium	mg/L	0.10	12.6	12.0	12.3	9.28	9.31	0	9.05	6.91	3.90	n/a	n/a	n/a	n/a	n/a	n/a
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Arsenic	mg/L	0.00050	0.00072	0.00061	0.00065	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	0.025	n/a	0.1	n/a	0.025
Barium	mg/L	0.0050	0.0374	0.0349	0.0338	0.0613	0.0615	0	0.0586	0.0505	0.0490	n/a	n/a	n/a	n/a	n/a	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	0.1	n/a	0.1	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	< 0.0500	5	n/a	0.5[h]	n/a	5	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	n/a	n/a	n/a	0.0051	n/a	0.08
Chromium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	0.0049 (Cr(+3))	n/a	0.05	n/a
Cobalt	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	0.05	n/a	1	n/a
Copper	mg/L	0.00040	0.00129	0.00118	0.00205	**0.00055**	**0.00055**	*	**0.00054**	0.00047	< 0.00040	n/a	0.3	n/a	0.2	n/a	0.3
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	0.1	n/a	0.2[l]	n/a	0.1
Lithium	mg/L	0.00010	0.00112	0.00107	0.00115	0.00036	0.00035	*	0.00031	0.00024	< 0.00010	n/a	n/a	0.75[h]	n/a	n/a	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	0.00002[h]	n/a	n/a	0.002	n/a	0.003
Molybdenum	mg/L	0.00010	0.00188	0.00182	0.00202	0.00099	0.00100	1	0.00096	0.00081	0.00043	0.034[i]	n/a	0.01[i]	0.05[l]	0.016[i]	n/a
Nickel	mg/L	0.00040	0.00047	0.00042	0.00054	< 0.00040	< 0.00040	*	< 0.00040	< 0.00040	< 0.00040	n/a	n/a	0.2	n/a	1	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	0.002	n/a	n/a	0.01	n/a	0.03
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	< 0.000050	< 0.000050	n/a	n/a	n/a	n/a	n/a	n/a
Strontium	mg/L	0.0010	0.210	0.210	0.210	0.227	0.230	1	0.221	0.192	0.125	n/a	n/a	n/a	n/a	n/a	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	< 0.000020	< 0.000020	n/a	n/a	n/a	n/a	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	*	< 0.0010	< 0.0010	< 0.0010	n/a	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000865	0.000866	0.000946	0.000640	0.000645	1	0.000636	0.000464	0.000055	n/a	n/a	0.01	n/a	0.2	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	0.1	n/a	0.1	n/a
Zinc	mg/L	0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	< 0.0040	< 0.0040	n/a	n/a	5 (pH>=7.0)[h]	n/a	2	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Silicon	mg/L	1.0	3.3	3.4	3.6	4.8	4.8	*	4.6	4.0	3.8	n/a	n/a	n/a	n/a	n/a	n/a
Sulphur	mg/L	3.0	8.5	7.9	8.1	4.3	4.3	*	4.2	< 3.0	< 3.0	n/a	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	n/a	n/a	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a
Zirconium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline varies with background concentration.
[h] Guideline is crop dependent.
[i] Guideline is livestock dependent.
[j] Guideline is crop and soil dependent.
[k] Guideline is pH dependent.
[l] Guideline is soil dependent.
[m] Guideline is species dependent.
[n] Guideline is for dissolved concentrations.
[o] Exceeded hold time for re-analysis with lower RDL.

TABLE 11B: Summary of Analytical Results for Surface Water - Dissolved Metals

Sample Location			CC1-1	CC1-3	CC2-1	EH1-1	HH1-1			HH1-2	BC Guideline		Federal Guideline		
Sample ID			SW22-CC1-1-221021	SW22-CC1-3-221021	SW22-CC2-1-221019	SW22-EH1-1-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-2-221020	BCWQG Aquatic Life Long-Term Chronic (AW)[b]	BCWQG Aquatic Life Short-Term Acute (AW)[c]	CCME CEQG Aquatic Life (AW)[d]	Guidelines for Canadian Drinking Water Quality (GCDWQ)[e] MAC	Guidelines for Canadian Recreational Water Quality[f]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 21	2022 10 19	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20					
Parameter	**Units**	**RDL**	**Analytical Results**												
Physical Parameters															
pH (Field)	pH	0.10	8.47	8.42	8.57	8.51	8.05	8.05	*	8.48	6.5 - 9.0	6.5 - 9.0	6.5-9.0	n/a	5.0 - 11.0
Total Hardness	mg/L	0.500	159	156	81.8	130	138	137	1	140	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	**3.96**	**2.42**	0.19	0.87	0.60	**1.42**	81	0.65	n/a	n/a	n/a	1	50
Total Dissolved Solids	mg/L	15	213	221	144	193	162	170	5	237	n/a	n/a	n/a	n/a	n/a
Total Suspended Solids	mg/L	2.0	11.0	10.2	< 2.0	2.2	< 2.0	2.0	*	< 2.0	n/a	n/a	n/a	n/a	n/a
Dissolved Metals															
Dissolved Aluminum	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	0.05 (pH>=6.5)[g]	0.1 (pH>=6.5)[g]	0.1 (pH>=6.5)[g]	2.9	n/a
Dissolved Calcium	mg/L	0.20	43.2	42.6	26.3	31.9	35.1	34.9	1	35.3	n/a	n/a	n/a	n/a	n/a
Dissolved Iron	mg/L	0.010	< 0.010	< 0.010	0.011	0.023	0.023	0.023	*	0.015	n/a	0.35	0.3	n/a	n/a
Dissolved Magnesium	mg/L	0.010	12.5	11.9	3.89	12.1	12.2	12.2	0	12.5	n/a	n/a	n/a	n/a	n/a
Dissolved Manganese	mg/L	0.00020	0.00392	0.00464	0.00966	0.0329	0.0335	0.0337	1	0.0120	n/a	n/a	0.39[j]	n/a	n/a
Dissolved Potassium	mg/L	0.10	2.18	2.15	0.91	2.85	2.67	2.69	1	2.62	n/a	n/a	n/a	n/a	n/a
Dissolved Sodium	mg/L	0.10	12.5	12.0	6.01	11.5	12.3	12.4	1	12.6	n/a	n/a	n/a	n/a	n/a
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	n/a	n/a	0.006	n/a
Arsenic	mg/L	0.00050	0.00071	0.00070	< 0.00050	0.00103	0.00089	0.00089	*	0.00079	0.005	n/a	0.005	0.01	n/a
Barium	mg/L	0.0050	0.0329	0.0338	0.0475	0.0327	0.0430	0.0416	3	0.0425	n/a	n/a	n/a	n/a	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	n/a	n/a	1.5	5	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	0.0001 - 0.0003[h]	0.0003 - 0.001[h]	n/a	n/a	n/a
Chromium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	n/a	n/a	0.001[k]	n/a	n/a
Cobalt	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a
Copper	mg/L	0.00040	0.00133	0.00123	< 0.00040[a]	0.00140	0.00132	0.00137	*	0.00142	0.0002[i]	0.0002[i]	0.002 - 0.004[h]	n/a	n/a
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	n/a	0.001 - 0.006[h]	n/a	n/a
Lithium	mg/L	0.00010	0.00114	0.00108	0.00033	0.00167	0.00144	0.00147	2	0.00145	n/a	n/a	n/a	n/a	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000040[l]	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	n/a	n/a	0.000026	0.001	n/a
Molybdenum	mg/L	0.00010	0.00200	0.00196	0.00076	0.00167	0.00156	0.00155	1	0.00202	n/a	n/a	0.073	n/a	n/a
Nickel	mg/L	0.00040	0.00043	0.00041	< 0.00040	0.00077	0.00067	0.00075	*	0.00060	n/a	n/a	0.025 - 0.136[h]	n/a	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	n/a	n/a	0.001	0.05	n/a
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	n/a	n/a	0.00025	n/a	n/a
Strontium	mg/L	0.0010	0.214	0.206	0.169	0.187	0.203	0.206	1	0.217	n/a	n/a	n/a	7.00	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	n/a	n/a	0.0008	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	*	< 0.0010	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000951	0.000946	0.000248	0.000553	0.000578	0.000573	1	0.000887	n/a	n/a	0.015	n/a	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	n/a	n/a	n/a	n/a	n/a
Zinc	mg/L	0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	n/a	n/a	0.017[i]	n/a	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a
Silicon	mg/L	1.0	3.6	3.8	4.3	1.7	2.2	2.2	*	2.8	n/a	n/a	n/a	n/a	n/a
Sulphur	mg/L	3.0	7.8	7.7	< 3.0	7.8	8.2	8.2	*	8.8	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	n/a	n/a	n/a	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a
Zirconium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Table 1 HC Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[c] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[d] Guideline to protect freshwater aquatic life.
[e] Maximum Acceptable Concentrations.
[f] Guidelines for Canadian Recreational Water Quality, (2012, as updated),
[g] Guideline is pH dependent.
[h] Guideline is hardness dependent.
[i] Guideline is temperature, pH, DOC and hardness dependent.
[j] Guideline is pH and hardness dependent. Guideline applies to dissolved concentrations.
[k] Individual guideline exist for Cr +3 and Cr +6. Reported value represents more stringent guideline.
[l] Sample analyzed after hold time expired, detection limit exceeds regulatory standard/guideline.

TABLE 11B: Summary of Analytical Results for Surface Water - Dissolved Metals

Sample Location			HH1-3	HH1-4	HH1-5	HH2-1			HH2-2	HH2-4	HH2-5	BC Guideline		Federal Guideline		
Sample ID			SW22-HH1-3-221021	SW22-HH1-4-221020	SW22-HH1-5-221021	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	SW22-HH2-4-221018	SW22-HH2-5-221019	BCWQG Aquatic Life Long-Term	BCWQG Aquatic Life Short-Term	CCME CEQG Aquatic Life	Guidelines for Canadian Drinking Water Quality	Guidelines for Canadian Recreational Water Quality
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	2022 10 21	2022 10 18	Duplicate	RPD %	2022 10 18	2022 10 18	2022 10 19	Chronic (AW)[b]	Acute (AW)[c]	(AW)[d]	(GCDWQ)[e] MAC	Water Quality[f]
Parameter	**Units**	**RDL**	**Analytical Results**													
Physical Parameters																
pH (Field)	pH	0.10	8.85	8.51	8.43	7.85	7.85	0	8.44	8.44	7.83	6.5 - 9.0	6.5 - 9.0	6.5-9.0	n/a	5.0 - 11.0
Total Hardness	mg/L	0.500	155	151	158	144	141	2	140	111	50.7	n/a	n/a	n/a	n/a	n/a
Turbidity	NTU	0.10	-	**1.08**	**2.75**	-	-	-	-	-	-	n/a	n/a	n/a	1	50
Total Dissolved Solids	mg/L	15	200	223	225	161	168	4	164	142	67	n/a	n/a	n/a	n/a	n/a
Total Suspended Solids	mg/L	2.0	3.2	9.6	7.8	< 2.0	< 2.0	*	< 2.0	< 2.0	< 2.0	n/a	n/a	n/a	n/a	n/a
Dissolved Metals																
Dissolved Aluminum	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	0.0052	0.05 (pH>=6.5)[g]	0.1 (pH>=6.5)[g]	0.1 (pH>=6.5)[g]	2.9	n/a
Dissolved Calcium	mg/L	0.20	40.9	41.4	43.5	44.1	42.8	3	43.0	35.5	17.4	n/a	n/a	n/a	n/a	n/a
Dissolved Iron	mg/L	0.010	0.012	< 0.010	< 0.010	0.036	0.037	*	< 0.010	0.025	0.017	n/a	0.35	0.3	n/a	n/a
Dissolved Magnesium	mg/L	0.010	12.8	11.7	12.0	8.24	8.25	0	7.95	5.41	1.73	n/a	n/a	n/a	n/a	n/a
Dissolved Manganese	mg/L	0.00020	0.00614	0.00755	0.00394	0.036	0.0359	0	0.00270	0.0121	0.0112	n/a	n/a	0.39[j]	n/a	n/a
Dissolved Potassium	mg/L	0.10	2.55	2.28	2.15	1.20	1.21	1	1.13	1.05	0.78	n/a	n/a	n/a	n/a	n/a
Dissolved Sodium	mg/L	0.10	12.6	12.0	12.3	9.28	9.31	0	9.05	6.91	3.90	n/a	n/a	n/a	n/a	n/a
Antimony	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	0.006	n/a
Arsenic	mg/L	0.00050	0.00072	0.00061	0.00065	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	0.005	n/a	0.005	0.01	n/a
Barium	mg/L	0.0050	0.0374	0.0349	0.0338	0.0613	0.0615	0	0.0586	0.0505	0.0490	n/a	n/a	n/a	n/a	n/a
Beryllium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a
Boron	mg/L	0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	< 0.0500	*	< 0.0500	< 0.0500	< 0.0500	n/a	n/a	1.5	5	n/a
Cadmium	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	0.0001 - 0.0003[h]	0.0003 - 0.001[h]	n/a	n/a	n/a
Chromium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	0.001[k]	n/a	n/a
Cobalt	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a
Copper	mg/L	0.00040	0.00129	0.00118	0.00205	0.00055	0.00055	*	0.00054	0.00047	< 0.00040[a]	0.0002[i]	0.0002[i]	0.002 - 0.004[h]	n/a	n/a
Lead	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	0.001 - 0.006[h]	n/a	n/a
Lithium	mg/L	0.00010	0.00112	0.00107	0.00115	0.00036	0.00035	*	0.00031	0.00024	< 0.00010	n/a	n/a	n/a	n/a	n/a
Mercury	mg/L	0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	< 0.000010	*	< 0.000010	< 0.000010	< 0.000010	n/a	n/a	0.000026	0.001	n/a
Molybdenum	mg/L	0.00010	0.00188	0.00182	0.00202	0.00099	0.00100	1	0.00096	0.00081	0.00043	n/a	n/a	0.073	n/a	n/a
Nickel	mg/L	0.00040	0.00047	0.00042	0.00054	< 0.00040	< 0.00040	*	< 0.00040	< 0.00040	< 0.00040	n/a	n/a	0.025 - 0.136[h]	n/a	n/a
Selenium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	0.001	0.05	n/a
Silver	mg/L	0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	< 0.000050	*	< 0.000050	< 0.000050	< 0.000050	n/a	n/a	0.00025	n/a	n/a
Strontium	mg/L	0.0010	0.210	0.210	0.210	0.227	0.230	1	0.221	0.192	0.125	n/a	n/a	n/a	7.00	n/a
Thallium	mg/L	0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	< 0.000020	*	< 0.000020	< 0.000020	< 0.000020	n/a	n/a	0.0008	n/a	n/a
Tin	mg/L	0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	< 0.00020	*	< 0.00020	< 0.00020	< 0.00020	n/a	n/a	n/a	n/a	n/a
Titanium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a
Tungsten	mg/L	0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	*	< 0.0010	< 0.0010	< 0.0010	n/a	n/a	n/a	n/a	n/a
Uranium	mg/L	0.000020	0.000865	0.000866	0.000946	0.000640	0.000645	1	0.000636	0.000464	0.000055	n/a	n/a	0.015	n/a	n/a
Vanadium	mg/L	0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	*	< 0.0050	< 0.0050	< 0.0050	n/a	n/a	n/a	n/a	n/a
Zinc	mg/L	0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	< 0.0040	*	< 0.0040	< 0.0040	< 0.0040	n/a	n/a	0.017[j]	n/a	n/a
Bismuth	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a
Phosphorous	mg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Silicon	mg/L	1.0	3.3	3.4	3.6	4.8	4.8	*	4.6	4.0	3.8	n/a	n/a	n/a	n/a	n/a
Sulphur	mg/L	3.0	8.5	7.9	8.1	4.3	4.3	*	4.2	< 3.0	< 3.0	n/a	n/a	n/a	n/a	n/a
Tellurium	mg/L	0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	< 0.00050	*	< 0.00050	< 0.00050	< 0.00050	n/a	n/a	n/a	n/a	n/a
Thorium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a
Zirconium	mg/L	0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	*	< 0.00010	< 0.00010	< 0.00010	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Table 1 HC Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[c] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[d] Guideline to protect freshwater aquatic life.
[e] Maximum Acceptable Concentrations.
[f] Guidelines for Canadian Recreational Water Quality, (2012, as updated),
[g] Guideline is pH dependent.
[h] Guideline is hardness dependent.
[i] Guideline is temperature, pH, DOC and hardness dependent.
[j] Guideline is pH and hardness dependent. Guideline applies to dissolved concentrations.
[k] Individual guideline exist for Cr +3 and Cr +6. Reported value represents more stringent guideline.
[l] Exceeded hold time for re-analysis with lower RDL.

TABLE 12A: Summary of Analytical Results for Surface Water - Microbiological Tests

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Microbiological Tests		
			Fecal MPN/100mL	E. Coli MPN/100mL	Total MPN/100mL
Reported Detection Limit			1	1	1
CC1-1	SW22-CC1-1-221021	2022 10 21	16	16	727
CC2-1	SW22-CC2-221019	2022 10 19	2	< 1	250
EH1-1	SW22-EH1-1-221019	2022 10 19	49	28	921
HH1-1	SW22-HH1-1-221020	2022 10 20	38	26	722
	SW22-A-221020	Duplicate	23	23	727
	QA/QC RPD%		49	12	1
HH1-2	SW22-HH1-2-221020	2022 10 20	14	14	770
HH1-3	SW22-HH1-3-221021	2022 10 21	22	22	816
HH1-4	SW22-HH1-4-221020	2022 10 20	8	5	548
HH1-5	SW22-HH1-5-221021	2022 10 21	18	11	345
HH2-1	SW22-HH2-1-221018	2022 10 18	8	8	345
	SW22-B-221018	Duplicate	8	8	727
	QA/QC RPD%		0	0	71
HH2-2	SW22-HH2-2-221018	2022 10 18	9	9	488
HH2-4	SW22-HH2-4-221018	2022 10 18	1	1	167
HH2-5	SW22-HH2-5-221019	2022 10 19	< 1	< 1	225
BC Guideline					
BCWQG Wildlife Long-Term Average (WL)[a]			n/a	n/a	n/a
BCWQG Wildlife Short-Term Maximum (WL)[b]			n/a	n/a	n/a
BCWQG Irrigation Water Long-Term Average (IW)[c]			n/a	n/a	n/a
BCWQG Irrigation Water Short-Term Maximum (IW)[d]			200	77	n/a
BCWQG Livestock Water Long-Term Average (LW)[e]			n/a	n/a	n/a
BCWQG Livestock Water Short-Term Maxium (LW)[f]			200	200	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").

TABLE 12B: Summary of Analytical Results for Surface Water - Microbiological Tests

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Microbiological Tests		
			Fecal MPN/100mL	E. Coli MPN/100mL	Total MPN/100mL
Reported Detection Limit			1	1	1
CC1-1	SW22-CC1-1-221021	2022 10 21	16	**16**	727
CC2-1	SW22-CC2-221019	2022 10 19	2	< 1	250
EH1-1	SW22-EH1-1-221019	2022 10 19	49	**28**	921
HH1-1	SW22-HH1-1-221020	2022 10 20	38	**26**	722
	SW22-A-221020	Duplicate	23	**23**	727
	QA/QC RPD%		49	12	1
HH1-2	SW22-HH1-2-221020	2022 10 20	14	**14**	770
HH1-3	SW22-HH1-3-221021	2022 10 21	22	**22**	816
HH1-4	SW22-HH1-4-221020	2022 10 20	8	**5**	548
HH1-5	SW22-HH1-5-221021	2022 10 21	18	**11**	345
HH2-1	SW22-HH2-1-221018	2022 10 18	8	**8**	345
	SW22-B-221018	Duplicate	8	**8**	727
	QA/QC RPD%		0	0	71
HH2-2	SW22-HH2-2-221018	2022 10 18	9	**9**	488
HH2-4	SW22-HH2-4-221018	2022 10 18	1	**1**	167
HH2-5	SW22-HH2-5-221019	2022 10 19	< 1	< 1	225
BC and Federal Guideline					
BCWQG Aquatic Life Long-Term Chronic (AW)[a]			n/a	n/a	n/a
BCWQG Aquatic Life Short-Term Acute (AW)[b]			n/a	n/a	n/a
CCME CEQG Aquatic Life (AW)[c]			n/a	n/a	n/a
Guidelines for Canadian Drinking Water Quality (GCDWQ)[d]			n/a	<1	n/a
Guidelines for Canadian Recreational Water Quality[e]			n/a	400	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guidelines for Canadian Recreational Water Quality, (2012, as updated),

TABLE 13A: Summary of Analytical Results for Surface Water - Hydrocarbons

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Monocyclic Aromatic Hydrocarbons					Gross Parameters						MTBE
			Benzene µg/L	Ethylbenzen µg/L	Toluene µg/L	Xylenes µg/L	Styrene µg/L	VHw6-10 µg/L	VPHw µg/L	EPHw10-19 µg/L	LEPHw µg/L	EPH (C19-C32) µg/L	HEPH (C19-C32) µg/L	Methyl Tert-butyl [MTBE] µg/L
Reported Detection Limit			0.5	1.0	1.0	2.0	1.0	100	100	250	250	250	250	1.0
CC1-1	SW22-CC1-1-221021	2022 10 21	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
CC1-2	SW22-CC1-2-221020	2022 10 20	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
CC1-3	SW22-CC1-3-221021	2022 10 21	< 0.5	< 1.0	< 1.0	< 2.0	< 1.0	< 100	< 100	< 250	< 250	< 250	< 250	< 1.0
EH1-1	SW22-EH1-1-221019	2022 10 19	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
EH1-2	SW22-EH1-2-221021	2022 10 21	-	-	-	-	-	-	-	< 250	-	< 250	-	-
EH1-5	SW22-EH1-5-221021	2022 10 21	-	-	-	-	-	-	-	< 250	-	< 250	-	-
EH2-3	SW22-EH2-3-221018	2022 10 18	-	-	-	-	-	-	-	< 250	-	< 250	-	-
HH1-1	SW22-HH1-1-221020	2022 10 20	< 0.5	< 1.0	< 1.0	< 2.0	< 1.0	< 100	< 100	< 250	< 250	< 250	< 250	< 1.0
	SW22-A-221020	Duplicate	< 0.5	< 1.0	< 1.0	< 2.0	< 1.0	< 100	< 100	< 250	< 250	< 250	< 250	< 1.0
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*
HH1-2	SW22-HH1-2-221020	2022 10 20	-	-	-	-	-	-	-	< 250	-	< 250	-	-
HH1-4	SW22-HH1-4-221020	2022 10 20	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
HH2-1	SW22-HH2-1-221018	2022 10 18	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
	SW22-B-221018	Duplicate	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
	QA/QC RPD%		-	-	-	-	-	-	-	*	*	*	*	-
HH2-2	SW22-HH2-2-221018	2022 10 18	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
HH2-4	SW22-HH2-4-221018	2022 10 18	-	-	-	-	-	-	-	< 250	-	< 250	-	-
BC Guideline														
BCWQG Wildlife Long-Term Average (WL)[a]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Wildlife Short-Term Maximum (WL)[b]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Irrigation Water Long-Term Average (IW)[c]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Irrigation Water Short-Term Maximum (IW)[d]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Livestock Water Long-Term Average (LW)[e]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Livestock Water Short-Term Maxium (LW)[f]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11,000

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").

TABLE 13B: Summary of Analytical Results for Surface Water - Hydrocarbons

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Monocyclic Aromatic Hydrocarbons					Gross Parameters						MTBE
			Benzene µg/L	Ethylbenzene µg/L	Toluene µg/L	Xylenes µg/L	Styrene µg/L	VHw6-10 µg/L	VPHw µg/L	EPHw10-19 µg/L	LEPHw µg/L	EPH (C19-C32) µg/L	HEPH (C19-C32) µg/L	Methyl Tert-butyl [MTBE] µg/L
Reported Detection Limit			0.5	1.0	1.0	2.0	1.0	100	100	250	250	250	250	1.0
CC1-1	SW22-CC1-1-221021	2022 10 21	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
CC1-2	SW22-CC1-2-221020	2022 10 20	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
CC1-3	SW22-CC1-3-221021	2022 10 21	< 0.5	< 1.0	< 1.0[a]	< 2.0	< 1.0	< 100	< 100	< 250	< 250	< 250	< 250	< 1.0
EH1-1	SW22-EH1-1-221019	2022 10 19	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
EH1-5	SW22-EH1-5-22121	2022 10 21	-	-	-	-	-	-	-	< 250	-	< 250	-	-
EH2-3	SW22-EH2-3-221018	2022 10 18	-	-	-	-	-	-	-	< 250	-	< 250	-	-
HH1-1	SW22-HH1-1-221020	2022 10 20	< 0.5	< 1.0	< 1.0[a]	< 2.0	< 1.0	< 100	< 100	< 250	< 250	< 250	< 250	< 1.0
	SW22-A-221020	Duplicate	< 0.5	< 1.0	< 1.0	< 2.0	< 1.0	< 100	< 100	< 250	< 250	< 250	< 250	< 1.0
	QA/QC RPD%		*	*	*	*	*	*	*	*	*	*	*	*
HH1-2	SW22-HH1-2-221020	2022 10 20	-	-	-	-	-	-	-	< 250	-	< 250	-	-
EH1-2	SW22-EH1-2-221021	2022 10 21	-	-	-	-	-	-	-	< 250	-	< 250	-	-
HH1-4	SW22-HH1-4-221020	2022 10 20	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
HH2-4	SW22-HH2-4-221018	2022 10 18	-	-	-	-	-	-	-	< 250	-	< 250	-	-
HH2-1	SW22-HH2-1-221018	2022 10 18	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
	SW22-B-221018	Duplicate	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
	QA/QC RPD%		-	-	-	-	-	-	-	*	*	*	*	-
HH2-2	SW22-HH2-2-221018	2022 10 18	-	-	-	-	-	-	-	< 250	< 250	< 250	< 250	-
BC and Federal Guideline														
BCWQG Aquatic Life Long-Term Chronic (AW)[b]			40	200	0.5	30	72	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Aquatic Life Short-Term Acute (AW)[c]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3,400
CCME CEQG Aquatic Life (AW)[d]			370	90	2	n/a	72	n/a	n/a	n/a	n/a	n/a	n/a	10,000
Guidelines for Canadian Drinking Water Quality (GCDWQ)[e]			5	140	60	90	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Guidelines for Canadian Recreational Water Quality[f]			n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[c] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[d] Guideline to protect freshwater aquatic life.
[e] Maximum Acceptable Concentrations.
[f] Guidelines for Canadian Recreational Water Quality, (2012, as updated)

TABLE 14A: Summary of Analytical Results for Surface Water - Polycyclic Aromatic Hydrocarbons

Sample Location			CC1-1	CC1-2	CC1-3	EH-1-1	HH1-1			BC Guideline					
Sample ID			SW22-CC1-1-221021	SW22-CC1-2-221020	SW22-CC1-3-221021	SW22-EH-1-1-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	2022 10 21	2022 10 19	2022 10 20	Duplicate	RPD %	Wildlife	Wildlife	Irrigation Water	Irrigation Water	Livestock Water	Livestock Water
Parameter	**Units**	**RDL**	**Analytical Results**							**Long-Term Average (WL)[a]**	**Short-term Maximum (WL)[b]**	**Long-Term Average (IW)[c]**	**Short-term Maximum (IW)[d]**	**Long-Term Average (LW)[e]**	**Short-term Maximum (LW)[f]**
Polycyclic Aromatic Hydrocarbons															
Naphthalene	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	n/a	n/a
Methylnaphthalene, 1-	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Methylnaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Acenaphthylene	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	n/a	n/a
Acenaphthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Fluorene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Phenanthrene	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Acridine	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Fluoranthene	µg/L	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	*	n/a	n/a	n/a	n/a	n/a	n/a
Pyrene	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a	n/a
Benz(a)anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Chrysene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(b+j)fluoranthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(k)fluoranthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(a)pyrene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Indeno(1,2,3-cd)pyrene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Dibenz(a,h)anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(g,h,i)perylene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Chloronaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Quinoline	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2700, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").

TABLE 14A: Summary of Analytical Results for Surface Water - Polycyclic Aromatic Hydrocarbons

Sample Location			HH1-4	HH2-1			HH2-2	BC Guideline					
Sample ID			SW22-HH1-4-221020	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG
Sample Date (yyyy mm dd)			2022 10 20	2022 10 18	Duplicate	RPD %	2022 10 18	Wildlife	Wildlife	Irrigation Water	Irrigation Water	Livestock Water	Livestock Water
Parameter	**Units**	**RDL**	**Analytical Results**					**Long-Term Average (WL)[a]**	**Short-term Maximum (WL)[b]**	**Long-Term Average (IW)[c]**	**Short-term Maximum (IW)[d]**	**Long-Term Average (LW)[e]**	**Short-term Maximum (LW)[f]**
Polycyclic Aromatic Hydrocarbons													
Naphthalene	µg/L	0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	n/a	n/a	n/a	n/a	n/a	n/a
Methylnaphthalene, 1-	µg/L	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a	n/a	n/a	n/a
Methylnaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a	n/a	n/a	n/a
Acenaphthylene	µg/L	0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	n/a	n/a	n/a	n/a	n/a	n/a
Acenaphthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Fluorene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Phenanthrene	µg/L	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a	n/a	n/a	n/a
Anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	n/a	n/a	n/a	n/a	n/a	n/a
Acridine	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Fluoranthene	µg/L	0.030	< 0.030	< 0.030	< 0.030	*	< 0.030	n/a	n/a	n/a	n/a	n/a	n/a
Pyrene	µg/L	0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	n/a	n/a	n/a	n/a	n/a	n/a
Benz(a)anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	n/a	n/a	n/a	n/a	n/a	n/a
Chrysene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(b+j)fluoranthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(k)fluoranthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(a)pyrene	µg/L	0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	n/a	n/a	n/a	n/a	n/a	n/a
Indeno(1,2,3-cd)pyrene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Dibenz(a,h)anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	n/a	n/a	n/a	n/a	n/a	n/a
Benzo(g,h,i)perylene	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a
Chloronaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	n/a	n/a	n/a	n/a	n/a	n/a
Quinoline	µg/L	0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2700, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").

TABLE 14B: Summary of Analytical Results for Surface Water - Polycyclic Aromatic Hydrocarbons

Sample Location			HH1-1			HH1-4	HH2-1			BC Guideline		Federal Guideline		
Sample ID			SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-4-221020	SW22-HH2-1-221018	SW22-B-221018	QA/QC	BCWQG	BCWQG	CCME CEQG	Guidelines for Canadian	Guidelines for Canadian
Sample Date (yyyy mm dd)			2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %	Aquatic Life	Aquatic Life	Aquatic Life	Drinking Water Quality	Recreational Water Quality
Parameter	**Units**	**RDL**	**Analytical Results**							**Long-Term Chronic (AW)[a]**	**Short-Term Acute (AW)[b]**	**(AW)[c]**	**(GCDWQ)[d]**	**(GCRWQ)[e]**
Polycyclic Aromatic Hydrocarbons														
Naphthalene	µg/L	0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	1	1	1.1	n/a	n/a
Methylnaphthalene, 1-	µg/L	0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Methylnaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Acenaphthylene	µg/L	0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	n/a
Acenaphthene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	6	n/a	5.8	n/a	n/a
Fluorene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	12	n/a	3	n/a	n/a
Phenanthrene	µg/L	0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	0.3	n/a	0.4	n/a	n/a
Anthracene	µg/L	0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	0.1	n/a	0.012	n/a	n/a
Acridine	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	3	n/a	4.4	n/a	n/a
Fluoranthene	µg/L	0.030	< 0.030	< 0.030	*	< 0.030	< 0.030	< 0.030	*	0.2	n/a	0.04	n/a	n/a
Pyrene	µg/L	0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	0.025	n/a	n/a
Benz(a)anthracene	µg/L	0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	0.1	n/a	0.018	n/a	n/a
Chrysene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Benzo(b+j)fluoranthene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Benzo(k)fluoranthene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Benzo(a)pyrene	µg/L	0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	0.01	n/a	0.015	0.04	n/a
Indeno(1,2,3-cd)pyrene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Dibenz(a,h)anthracene	µg/L	0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a
Benzo(g,h,i)perylene	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Chloronaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Quinoline	µg/L	0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	3.4	n/a	3.4	n/a	n/a

Associated CARO file(s): 22J2518, 22J2700, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guidelines for Canadian Recreational Water Quality, (2012, as updated)

TABLE 14B: Summary of Analytical Results for Surface Water - Polycyclic Aromatic Hydrocarbons

Sample Location			HH2-2	CC1-1	CC1-2	CC1-3	EH-1-1	BC Guideline		Federal Guideline		
Sample ID			SW22-HH2-2-221018	SW22-CC1-1-221021	SW22-CC1-2-221020	SW22-CC1-3-221021	SW22-EH-1-1-221019	BCWQG	BCWQG	CCME CEQG	Guidelines for Canadian	Guidelines for Canadian
Sample Date (yyyy mm dd)			2022 10 18	2022 10 21	2022 10 20	2022 10 21	2022 10 19	Aquatic Life	Aquatic Life	Aquatic Life	Drinking Water Quality	Recreational Water Quality
Parameter	**Units**	**RDL**	**Analytical Results**					**Long-Term Chronic (AW)[a]**	**Short-Term Acute (AW)[b]**	**(AW)[c]**	**(GCDWQ)[d]**	**(GCRWQ)[e]**
Polycyclic Aromatic Hydrocarbons												
Naphthalene	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	1	1	1.1	n/a	n/a
Methylnaphthalene, 1-	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	n/a	n/a	n/a	n/a	n/a
Methylnaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	n/a	n/a	n/a	n/a	n/a
Acenaphthylene	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	n/a	n/a	n/a	n/a	n/a
Acenaphthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	6	n/a	5.8	n/a	n/a
Fluorene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	12	n/a	3	n/a	n/a
Phenanthrene	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	0.3	n/a	0.4	n/a	n/a
Anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.1	n/a	0.012	n/a	n/a
Acridine	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	3	0.05	4.4	n/a	n/a
Fluoranthene	µg/L	0.030	< 0.030	< 0.030	< 0.030	< 0.030	< 0.030	0.2	n/a	0.04	n/a	n/a
Pyrene	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	n/a	0.02	0.025	n/a	n/a
Benz(a)anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.1	0.1	0.018	n/a	n/a
Chrysene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Benzo(b+j)fluoranthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Benzo(k)fluoranthene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Benzo(a)pyrene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	0.01	n/a	0.015	0.04	n/a
Indeno(1,2,3-cd)pyrene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Dibenz(a,h)anthracene	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	< 0.010	n/a	n/a	n/a	n/a	n/a
Benzo(g,h,i)perylene	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	n/a	n/a	n/a	n/a	n/a
Chloronaphthalene, 2-	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	< 0.100	n/a	n/a	n/a	n/a	n/a
Quinoline	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	3.4	n/a	3.4	n/a	n/a

Associated CARO file(s): 22J2518, 22J2700, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guidelines for Canadian Recreational Water Quality, (2012, as updated)

TABLE 15A: Summary of Analytical Results for Surface Water - Volatile Organic Compounds

Sample Location			CC1-3	HH1-1			BC Guideline					
Sample ID			SW22-CC1-3-221021	SW22-HH1-1-221020	SW22-A-221020	QA/QC	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG	BCWQG
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	Duplicate	RPD %	Wildlife	Wildlife	Irrigation Water	Irrigation Water	Livestock Water	Livestock Water
Parameter	Units	RDL	Analytical Results				Long-Term Average (WL)[a]	Short-term Maximum (WL)[b]	Long-Term Average (IW)[c]	Short-term Maximum (IW)[d]	Long-Term Average (LW)[e]	Short-term Maximum (LW)[f]
Volatile Organic Compounds												
Bromodichloromethane [BDCM]	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	100	n/a
Bromoform	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	100	n/a
Carbon Tetrachloride	µg/L	0.5	< 0.5	< 0.5	< 0.5	*	n/a	n/a	n/a	n/a	5	n/a
Chlorobenzene	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Chloroethane	µg/L	2.0	< 2.0	< 2.0	< 2.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Chloroform	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	100	n/a
Dibromochloromethane [DBCM]	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	100	n/a
Dibromoethane, 1,2-	µg/L	0.3	< 0.3	< 0.3	< 0.3	*	n/a	n/a	n/a	n/a	n/a	n/a
Dibromomethane	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichlorobenzene, 1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichlorobenzene, 1,3-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichlorobenzene, 1,4-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichloroethane, 1,1-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichloroethane, 1,2-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	5	n/a
Dichloroethylene, 1,1-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichloroethylene, 1,2-cis-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichloroethylene, 1,2-trans-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichloromethane	µg/L	3.0	< 3.0	< 3.0	< 3.0	*	n/a	n/a	n/a	n/a	50	n/a
Dichloropropane, 1,2-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichloropropene, 1,3- (cis+trans)	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Tetrachloroethane, 1,1,2,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	*	n/a	n/a	n/a	n/a	n/a	n/a
Tetrachloroethylene	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Trichloroethane, 1,1,1-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Trichloroethane, 1,1,2-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Trichloroethylene	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	50	n/a
Trichlorofluoromethane	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a
Vinyl Chloride	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").

TABLE 15B: Summary of Analytical Results for Surface Water - Volatile Organic Compounds

Sample Location			CC1-3	HH1-1			BC Guideline		Federal Guideline		
Sample ID			SW22-CC1-3-221021	SW22-HH1-1-221020	SW22-A-221020	QA/QC	BCWQG Aquatic Life Long-Term Chronic (AW)[a]	BCWQG Aquatic Life Short-Term Acute (AW)[b]	CCME CEQG Aquatic Life (AW)[c]	Guidelines for Canadian Drinking Water Quality (GCDWQ)[d]	Guidelines for Canadian Recreational Water Quality (GCRWQ)[e]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 20	Duplicate	RPD %					
Parameter	**Units**	**RDL**	**Analytical Results**								
Volatile Organic Compounds											
Bromodichloromethane [BDCM]	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Bromoform	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Carbon Tetrachloride	µg/L	0.5	< 0.5	< 0.5	< 0.5	*	13.3	n/a	13.3	2	n/a
Chlorobenzene	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	1.3	n/a	1.3	n/a[f]	n/a
Chloroethane	µg/L	2.0	< 2.0	< 2.0	< 2.0	*	n/a	n/a	n/a	n/a	n/a
Chloroform	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	1.8	n/a	1.8	n/a	n/a
Dibromochloromethane [DBCM]	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Dibromoethane, 1,2-	µg/L	0.3	< 0.3	< 0.3	< 0.3	*	n/a	n/a	n/a	n/a	n/a
Dibromomethane	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Dichlorobenzene, 1,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	*	0.7	n/a	0.7	n/a[f]	n/a
Dichlorobenzene, 1,3-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	150	n/a	150	n/a	n/a
Dichlorobenzene, 1,4-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	26	n/a	26	1	n/a
Dichloroethane, 1,1-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Dichloroethane, 1,2-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	100	n/a	100	5	n/a
Dichloroethylene, 1,1-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	14	n/a
Dichloroethylene, 1,2-cis-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Dichloroethylene, 1,2-trans-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Dichloromethane	µg/L	3.0	< 3.0	< 3.0	< 3.0	*	98.1	n/a	98.1	50	n/a
Dichloropropane, 1,2-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Dichloropropene, 1,3- (cis+trans)	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Tetrachloroethane, 1,1,2,2-	µg/L	0.5	< 0.5	< 0.5	< 0.5	*	n/a	n/a	n/a	n/a	n/a
Tetrachloroethylene	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	110	n/a	110	10	n/a
Trichloroethane, 1,1,1-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Trichloroethane, 1,1,2-	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Trichloroethylene	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	21	n/a	21	5	n/a
Trichlorofluoromethane	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	n/a	n/a
Vinyl Chloride	µg/L	1.0	< 1.0	< 1.0	< 1.0	*	n/a	n/a	n/a	2	n/a

Associated CARO file(s): 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guidelines for Canadian Recreational Water Quality, (2012, as updated)
[f] Guideline withdrawn in 2022 by Health Canada.

TABLE 16A: Summary of Analytical Results for Surface Water - Dissolved Inorganics

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical Parameters					Dissolved Inorganics									
			pH	Total Hardness	Total Dissolved Solids	Total Suspended Solids	Dissolved Organic Carbon	Total Nitrogen-N	Nitrate Nitrogen	Nitrite Nitrogen	Nitrate+Nitrite Nitrogen	Chloride	Sulfate	Total Phosphorous as P	Ortho-Phosphate	Total Organic Carbon	Total Kjeldahl Nitrogen (TKN)
			mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Reported Detection Limit			0.10	0.500	15	2.0	0.50	0.0500	0.010	0.010	0.0100	0.10	1.0	0.0050	0.0050	0.50	0.050
CC1-1	SW22-CC1-1-221021	2022 10 21	8.06	159	213	11.0	4.61	0.196	< 0.010	< 0.010	< 0.0100	7.38	24.8	0.0233	< 0.0050	4.63	0.196
CC1-3	SW22-CC1-3-221021	2022 10 21	8.14	156	221	10.2	4.61	-	-	-	-	-	-	-	-	4.70	-
CC1-2	SW22-CC1-2-221020	2022 10 20	8.01	-	217	< 2.0	6.70	-	-	-	-	-	-	-	-	7.73	-
CC2-1	SW22-CC2-1-221019	2022 10 19	7.62	81.8	144	< 2.0	1.10	-	-	-	-	-	-	-	-	1.41	-
EH1-1	SW22-EH1-1-221019	2022 10 19	8.06	130	193	2.2	7.57	0.428	0.012	< 0.010	0.0125	7.49	25.1	0.0209	< 0.0050	8.31	0.416
HH1-1	SW22-HH1-1-221020	2022 10 20	8.05	138	162	< 2.0	6.97	0.396	51	< 10	50.7	10.3	27.6	0.0186	< 0.0050	7.16	0.345
	SW22-A-221020	Duplicate	8.05	137	170	2.0	6.58	0.396	50	< 10	50.5	10.1	27.2	0.0182	< 0.0050	7.56	0.346
	QA/QC RPD%		*	1	5	*	6	0	2	*	0	2	1	*	*	5	0
HH1-2	SW22-HH1-2-221020	2022 10 20	8.02	140	237	< 2.0	5.76	-	-	-	-	-	-	-	-	6.28	-
HH1-3	SW22-HH1-3-221021	2022 10 21	8.28	155	200	3.2	5.88	-	-	-	-	-	-	-	-	6.13	-
HH1-4	SW22-HH1-4-221020	2022 10 20	8.13	151	223	9.6	4.72	0.221	< 0.010	< 0.010	< 0.0100	7.87	24.9	0.0173	< 0.0050	4.76	0.221
HH1-5	SW22-HH1-5-221021	2022 10 21	8.26	158	225	7.8	5.03	-	-	-	-	-	-	-	-	5.04	-
HH2-5	SW22-HH2-5-221019	2022 10 19	7.80	50.7	67	< 2.0	-	-	-	-	-	-	-	-	-	-	-
HH2-4	SW22-HH2-4-221018	2022 10 18	8.06	111	142	< 2.0	1.57	-	-	-	-	-	-	-	-	1.73	-
HH2-1	SW22-HH2-1-221018	2022 10 18	8.07	144	161	< 2.0	1.80	0.0940	< 0.010	< 0.010	< 0.0100	-	12.4	0.0095	< 0.0050	2.55	0.094
	SW22-B-221018	Duplicate	8.10	141	168	< 2.0	1.15	0.0510	< 0.010	< 0.010	< 0.0100	-	12.3	0.0104	< 0.0050	1.95	0.051
	QA/QC RPD%		0	2	4	*	*	*	*	*	*	-	1	*	*	*	*
HH2-2	SW22-HH2-2-221018	2022 10 18	8.20	140	164	< 2.0	2.28	-	-	-	-	-	-	-	-	2.52	-
BC Guideline																	
BCWQG Wildlife Long-Term Average (WL)[a]			n/a	n/a	n/a	n/a[g]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Wildlife Short-term Maximum (WL)[b]			n/a	n/a	n/a	n/a[g]	n/a	n/a	n/a	100	10	100	600	n/a	n/a	n/a	n/a	n/a
BCWQG Irrigation Water Long-Term Average (IW)[c]			5.0 - 9.5	n/a	500[h]	n/a[g]	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BCWQG Irrigation Water Short-term Maximum (IW)[d]			5.0 - 9.5	n/a	n/a	n/a[g]	n/a	n/a	n/a	n/a	n/a	n/a	100	n/a	n/a	n/a	n/a	n/a
BCWQG Livestock Water Long-Term Average (LW)[e]			5.0 - 9.5	n/a	3,000[i]	n/a[g]	n/a	n/a	n/a	n/a	n/a	n/a	1,000	n/a	n/a	n/a	n/a
BCWQG Livestock Water Short-term Maximum (LW)[f]			5.0 - 9.5	n/a	n/a	n/a[g]	n/a	n/a	n/a	100	10	10	600	n/a	n/a	n/a	n/a	n/a

Associated Caro file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect Wildlife (Short Term), short-term maximum (i.e. "acute") .
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline varies with background concentration. If background value available, please check guideline.
[h] Guideline is crop dependent.
[i] Guideline is species dependent.

TABLE 16B: Summary of Analytical Results for Surface Water - Dissolved Inorganics

Sample Location	Sample ID	Sample Date (yyyy mm dd)	Physical Parameters					Dissolved Inorganics									
			pH	Total Hardness mg/L	Total Dissolved Solids mg/L	Total Suspended Solids mg/L	Dissolved Organic Carbon mg/L	Total Nitrogen-N mg/L	Nitrate Nitrogen mg/L	Nitrite Nitrogen mg/L	Nitrate+Nitrite Nitrogen mg/L	Chloride mg/L	Sulfate mg/L	Total Phosphorous as P mg/L	Ortho-Phosphate mg/L	Total Organic Carbon mg/L	Total Kjeldahl Nitrogen (TKN) mg/L
Reported Detection Limit			0.10	0.500	15	2.0	0.50	0.0500	0.010	0.010	0.0100	0.10	1.0	0.0050	0.0050	0.50	0.050
CC1-1	SW22-CC1-1-221021	2022 10 21	8.06	159	213	11.0	4.61	0.196	< 0.010	< 0.010	< 0.0100	7.38	24.8	0.0233	< 0.0050	4.63	0.196
CC1-2	SW22-CC1-2-221020	2022 10 20	8.01	-	217	< 2.0	6.70	-	-	-	-	-	-	-	-	7.73	-
CC1-3	SW22-CC1-3-221021	2022 10 21	8.14	156	221	10.2	4.61	-	-	-	-	-	-	-	-	4.70	-
CC2-1	SW22-CC2-1-221019	2022 10 19	7.62	81.8	144	< 2.0	1.10	-	-	-	-	-	-	-	-	1.41	-
EH-1-1	SW22-EH-1-1-221019	2022 10 19	8.06	130	193	2.2	7.57	0.428	0.012	< 0.010	0.0125	7.49	25.1	0.0209	< 0.0050	8.31	0.416
HH1-1	SW22-HH1-1-221020	2022 10 20	8.05	138	162	< 2.0	6.97	0.396	51	< 10	50.7	10.3	27.6	0.0186	< 0.0050	7.16	0.345
	SW22-A-221020	Duplicate	8.05	137	170	2.0	6.58	0.396	50	< 10	50.5	10.1	27.2	0.0182	< 0.0050	7.56	0.346
	QA/QC RPD%		*	1	5	*	6	0	2	*	0	2	1	*	*	5	0
HH1-2	SW22-HH1-2-221020	2022 10 20	8.02	140	237	< 2.0	5.76	-	-	-	-	-	-	-	-	6.28	-
HH1-3	SW22-HH1-3-221021	2022 10 21	8.28	155	200	3.2	5.88	-	-	-	-	-	-	-	-	6.13	-
HH1-4	SW22-HH1-4-221020	2022 10 20	8.13	151	223	9.6	4.72	0.221	< 0.010	< 0.010	< 0.0100	7.87	24.9	0.0173	< 0.0050	4.76	0.221
HH1-5	SW22-HH1-5-221021	2022 10 21	8.26	158	225	7.8	5.03	-	-	-	-	-	-	-	-	5.04	-
HH2-1	SW22-HH2-1-221018	2022 10 18	8.07	144	161	< 2.0	1.80	0.0940	< 0.010	< 0.010	< 0.0100	-	12.4	0.0095	< 0.0050	2.55	0.094
	SW22-B-221018	Duplicate	8.10	141	168	< 2.0	1.15	0.0510	< 0.010	< 0.010	< 0.0100	-	12.3	0.0104	< 0.0050	1.95	0.051
	QA/QC RPD%		0	2	4	*	*	*	*	*	*	-	1	*	*	*	*
HH2-2	SW22-HH2-2-221018	2022 10 18	8.20	140	164	< 2.0	2.28	-	-	-	-	-	-	-	-	2.52	-
HH2-4	SW-HH2-4-221018	2022 10 18	8.06	111	142	< 2.0	1.57	-	-	-	-	-	-	-	-	1.73	-
HH2-5	SW22-HH2-5-221019	2022 10 19	7.80	50.7	67	< 2.0	-	-	-	-	-	-	-	-	-	-	-
BC Guideline																	
BCWQG Aquatic Life Long-Term Chronic (AW)[a]			6.5 - 9.0	n/a	n/a	n/a	n/a	n/a	3	0.02 - 0.08 [f]	n/a	150	309[g]	n/a	n/a	n/a	n/a
BCWQG Aquatic Life Short-Term Acute (AW)[b]			6.5 - 9.0	n/a	n/a	n/a	n/a	n/a	32.8	0.06 - 0.24 [f]	n/a	600	n/a	n/a	n/a	n/a	n/a
CCME CEQG Aquatic Life (AW)[c]			6.5 - 9.0	n/a	n/a	n/a[i]	n/a	n/a	3	0.06	n/a	120	n/a	n/a	n/a	n/a	n/a
Guidelines for Canadian Drinking Water Quality (GCDWQ)[d]			7.0 - 10.5	n/a	n/a	n/a	n/a	n/a	10	1	n/a	n/a	n/a	n/a	n/a	n/a[h]	n/a
Guidelines for Canadian Recreational Water Quality[e]			5.0 - 11.0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2700, 22J2845, 22J2912.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life.
[d] Maximum Acceptable Concentrations.
[e] Guidelines for Canadian Recreational Water Quality, (2012, as updated),
[f] Guideline is chloride dependent.
[g] Guideline is hardness dependent.
[h] Guideline withdrawn in 2022 by Health Canada.
[i] Guideline varies with background concentration. If background value available, please check guideline.

TABLE 17A: Summary of Analytical Results for Surface Water - Pesticides

Sample Location			CC1-1	EH2-4	HH1-1			HH1-4	HH2-1			BC Guideline					
Sample ID			SW22-CC1-1-221021	SW22-EH2-4-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-4-221020	SW22-HH2-1-221018	SW22-B-221018	QA/QC	BCWQG Wildlife Long-Term Average (WL)[a]	BCWQG Wildlife Short-term Maximum (WL)[b]	BCWQG Irrigation Water Long-Term Average (IW)[c]	BCWQG Irrigation Water Short-term Maximum (IW)[d]	BCWQG Livestock Water Long-Term Average (LW)[e]	BCWQG Livestock Water Short-term Maximum (LW)[f]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %						
Parameter	Units	RDL	Analytical Results														
Organochlorine Pesticides																	
Alachlor	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Aldrin	µg/L	0.006	< 0.006	< 0.006	< 0.006	< 0.006	*	< 0.006	< 0.006	< 0.006	*	n/a	n/a	n/a	n/a	n/a	n/a
Captan	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	13	n/a
Chlordane (cis+trans)	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Chlorothalonil	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	5.8	n/a	170	n/a
DDT + Metabolites	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Dieldrin	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Endosulfan (I+II)	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Endosulfan Sulphate	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Endrin	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a	n/a
Endrin Aldehyde	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a	n/a
Endrin Ketone	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a	n/a
Heptachlor	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Heptachlor Epoxide	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, alpha-	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, beta-	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, delta-	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, gamma-	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	4	n/a
Methoxychlor	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a	n/a
Organophosphorus Pesticides																	
Azinphos-Methyl	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	n/a	n/a
Bromacil	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	0.2	n/a	1,100	n/a
Chlorpyrifos	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	24	n/a
Diazinon	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a	n/a
Dichlorvos	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Dimethoate	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	3	n/a
Disulfoton	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Malathion	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Parathion	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Parathion Methyl	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Phorate	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Ronnel	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Sulfotep	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Temephos	µg/L	0.500	< 0.500	< 0.500	< 0.500	< 0.500	*	< 0.500	< 0.500	< 0.500	*	n/a	n/a	n/a	n/a	n/a	n/a
Terbufos	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Organonitrogen Pesticides																	
Diuron	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline is crop specific.

TABLE 17A: Summary of Analytical Results for Surface Water - Pesticides

Sample Location			CC1-1	EH2-4	HH1-1			HH1-4	HH2-1			BC Guideline					
Sample ID			SW22-CC1-1-221021	SW22-EH2-4-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-4-221020	SW22-HH2-1-221018	SW22-B-221018	QA/QC	BCWQG Wildlife Long-Term Average (WL)[a]	BCWQG Wildlife Short-term Maximum (WL)[b]	BCWQG Irrigation Water Long-Term Average (IW)[c]	BCWQG Irrigation Water Short-term Maximum (IW)[d]	BCWQG Livestock Water Long-Term Average (LW)[e]	BCWQG Livestock Water Short-term Maximum (LW)[f]
Sample Date (yyyy mm dd)			2022 10 21	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %						
Parameter	**Units**	**RDL**	**Analytical Results**														
Miscellaneous Pesticides																	
Deltamethrin	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	2.5	n/a
Diclofop-methyl	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	0.18	n/a	9	n/a
Herbicides																	
Atrazine + N-dealkylated metabolites	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	10	n/a	5	n/a
Bromoxynil	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	0.33	n/a	11	n/a
Butachlor	µg/L	0.020	< 0.020	< 0.020	< 0.100	< 0.100	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a	n/a
Cyanazine	µg/L	0.100	< 0.100	< 0.100	< 0.050	< 0.050	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	0.5	n/a	10	n/a
Linuron	µg/L	0.050	< 0.050	< 0.050	< 0.100	< 0.100	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	0.071[g]	n/a	n/a	n/a
Metolachlor	µg/L	0.100	< 0.100	< 0.100	< 0.200	< 0.200	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	28	n/a	50	n/a
Metribuzin	µg/L	0.200	< 0.200	< 0.200	< 0.300	< 1.32	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	0.5	n/a	80	n/a
Prometon	µg/L	0.300	< 0.300	< 1.32	< 0.100	< 0.100	*	< 0.300	< 1.32	< 1.32	*	n/a	n/a	n/a	n/a	n/a	n/a
Prometryn	µg/L	0.100	< 0.100	< 0.100	< 0.200	< 0.200	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Simazine	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	0.5	n/a	10	n/a
Tebuthiuron	µg/L	0.200	< 0.200	< 0.200	< 0.100	< 0.100	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	0.27	n/a	130	n/a
Triallate	µg/L	0.100	< 0.100	< 0.100	< 0.200	< 0.200	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	230	n/a
Trifluralin	µg/L	0.200	< 0.200	< 0.200	< 0.020	< 0.020	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a	45	n/a
Fungicides																	
Pentachloronitrobenzene [PCNB]	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a	n/a
Pyrethroids																	
Permethrin (cis+trans)	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.064	< 0.010	*	n/a	n/a	n/a	n/a	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
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BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
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RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic").
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Guideline is crop specific.

TABLE 17B: Summary of Analytical Results for Surface Water - Pesticides

Sample Location			CC1-1	EH2-4	HH1-1			HH1-4	HH2-1			BC Guideline		Federal Guideline		
Sample ID			SW22-CC1-1-221021	SW22-EH2-4-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-4-221020	SW22-HH2-1-221018	SW22-B-221018	QA/QC	BCWQG Aquatic Life	BCWQG Aquatic Life	CCME CEQG Aquatic Life	Guidelines for Canadian Drinking Water Quality	Guidelines for Canadian Recreational Water Quality
Sample Date (yyyy mm dd)			2022 10 21	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %	Long-Term Chronic (AW)[b]	Short-Term Acute (AW)	(AW)[c]	(GCDWQ)[d]	(GCRWQ)
Parameter	**Units**	**RDL**	**Analytical Results**													
Organochlorine Pesticides																
Alachlor	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a[e]	n/a
Aldrin	µg/L	0.006	< 0.006	< 0.006	< 0.006	< 0.006	*	< 0.006	< 0.006	< 0.006	*	n/a	n/a	n/a	n/a	n/a
Captan	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	1.3	n/a	1.3	n/a	n/a
Chlordane (cis+trans)	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Chlorothalonil	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	0.18	n/a	0.18	n/a[e]	n/a
DDT + Metabolites	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a
Dieldrin	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a[e]	n/a
Endosulfan (I+II)	µg/L	0.010	< 0.010[a]	< 0.010[a]	< 0.010[a]	< 0.010	*	< 0.010[a]	< 0.010[a]	< 0.010[a]	*	0.0007	n/a	0.003	n/a	n/a
Endosulfan Sulphate	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Endrin	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a[e]	n/a
Endrin Aldehyde	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a
Endrin Ketone	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.020	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a
Heptachlor	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a[e]	n/a
Heptachlor Epoxide	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a[e]	n/a
Hexachlorocyclohexane, alpha-	µg/L	0.010	< 0.010	< 0.010	< 0.010	< 0.010	*	< 0.010	< 0.010	< 0.010	*	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, beta-	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, delta-	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a	n/a
Hexachlorocyclohexane, gamma-	µg/L	0.050	< 0.050[a]	< 0.050[a]	< 0.050[a]	< 0.050	*	< 0.050[a]	< 0.050[a]	< 0.050[a]	*	0.01	n/a	0.01	n/a[e]	n/a
Methoxychlor	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.050	*	< 0.050	< 0.050	< 0.050	*	n/a	n/a	n/a	n/a[e]	n/a
Organophosphorus Pesticides																
Azinphos-Methyl	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a[e]	n/a
Bromacil	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	5	n/a	5	n/a	n/a
Chlorpyrifos	µg/L	0.010	< 0.010[a]	< 0.010[a]	< 0.010[a]	< 0.010	*	< 0.010[a]	< 0.010[a]	< 0.010[a]	*	0.002	n/a	0.002	90	n/a
Diazinon	µg/L	0.020	< 0.020[a]	< 0.020[a]	< 0.020[a]	< 0.020	*	< 0.020[a]	< 0.020[a]	< 0.020[a]	*	0.0043	n/a	n/a	n/a[e]	n/a
Dichlorvos	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Dimethoate	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	6.2	n/a	6.2	20	n/a
Disulfoton	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Malathion	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	0.1	n/a	n/a	190	n/a
Parathion	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a[e]	n/a
Parathion Methyl	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Phorate	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a[e]	n/a
Ronnel	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Sulfotep	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Temephos	µg/L	0.500	< 0.500	< 0.500	< 0.500	< 0.500	*	< 0.500	< 0.500	< 0.500	*	n/a	n/a	n/a	n/a	n/a
Terbufos	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a[e]	n/a
Organonitrogen Pesticides																
Diuron	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	n/a	n/a	n/a	n/a[e]	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[c] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[d] Maximum Acceptable Concentrations.
[e] Guideline withdrawn in 2022 by Health Canada.

TABLE 17B: Summary of Analytical Results for Surface Water - Pesticides

Sample Location			CC1-1	EH2-4	HH1-1			HH1-4	HH2-1			BC Guideline		Federal Guideline		
Sample ID			SW22-CC1-1-221021	SW22-EH2-4-221019	SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH1-4-221020	SW22-HH2-1-221018	SW22-B-221018	QA/QC	BCWQG Aquatic Life	BCWQG Aquatic Life	CCME CEQG Aquatic Life	Guidelines for Canadian Drinking Water Quality	Guidelines for Canadian Recreational Water Quality
Sample Date (yyyy mm dd)			2022 10 21	2022 10 19	2022 10 20	Duplicate	RPD %	2022 10 20	2022 10 18	Duplicate	RPD %	Long-Term Chronic (AW)[b]	Short-Term Acute (AW)	(AW)[c]	(GCDWQ)[d]	(GCRWQ)
Parameter	**Units**	**RDL**	**Analytical Results**													
Miscellaneous Pesticides																
Deltamethrin	µg/L	0.100	< 0.100[a]	< 0.100[a]	< 0.100[a]	< 0.100	*	< 0.100[a]	< 0.100[a]	< 0.100[a]	*	0.0004	n/a	0.0004	n/a	n/a
Diclofop-methyl	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	6.1	n/a	6.1	n/a[e]	n/a
Herbicides																
Atrazine + N-dealkylated metabolites	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	1.8	n/a	1.8	30	n/a
Bromoxynil	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	5	n/a	5	5	n/a
Butachlor	µg/L	0.020	< 0.020	< 0.020	< 0.020	< 0.100	*	< 0.020	< 0.020	< 0.020	*	n/a	n/a	n/a	n/a	n/a
Cyanazine	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.050	*	< 0.100	< 0.100	< 0.100	*	2	n/a	2	n/a[e]	n/a
Linuron	µg/L	0.050	< 0.050	< 0.050	< 0.050	< 0.100	*	< 0.050	< 0.050	< 0.050	*	7	n/a	7	n/a	n/a
Metolachlor	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.200	*	< 0.100	< 0.100	< 0.100	*	7.8	n/a	7.8	n/a[e]	n/a
Metribuzin	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 1.32	*	< 0.200	< 0.200	< 0.200	*	1	n/a	1	80	n/a
Prometon	µg/L	0.300	< 0.300	< 1.32	< 0.300	< 0.100	*	< 0.300	< 1.32	< 1.32	*	n/a	n/a	n/a	n/a	n/a
Prometryn	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.200	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Simazine	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.200	*	< 0.200	< 0.200	< 0.200	*	10	n/a	10	n/a[e]	n/a
Tebuthiuron	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.100	*	< 0.200	< 0.200	< 0.200	*	1.6	n/a	1.6	n/a	n/a
Triallate	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.200	*	< 0.100	< 0.100	< 0.100	*	0.24	n/a	0.24	n/a[e]	n/a
Trifluralin	µg/L	0.200	< 0.200	< 0.200	< 0.200	< 0.020	*	< 0.200	< 0.200	< 0.200	*	0.2	n/a	0.2	n/a[e]	n/a
Fungicides																
Pentachloronitrobenzene [PCNB]	µg/L	0.100	< 0.100	< 0.100	< 0.100	< 0.100	*	< 0.100	< 0.100	< 0.100	*	n/a	n/a	n/a	n/a	n/a
Pyrethroids																
Permethrin (cis+trans)	µg/L	0.010	< 0.010[a]	< 0.010[a]	< 0.010[a]	< 0.010	*	< 0.010[a]	< 0.064[a]	< 0.010[a]	*	0.004	n/a	0.004	n/a	n/a

Associated CARO file(s): 22J2518, 22J2670, 22J2845.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality, (2012, as updated)

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life, long-term average (i.e. "chronic").
[c] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[d] Maximum Acceptable Concentrations.
[e] Guideline withdrawn in 2022 by Health Canada.

TABLE 18A: Summary of Analytical Results for Surface Water - Chlorinated Phenols

Sample Location			HH1-1			HH2-1			HH2-2	BC Guideline					
Sample ID			SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	BCWQG Wildlife	BCWQG Wildlife	BCWQG Irrigation Water	BCWQG Irrigation Water	BCWQG Livestock Water	BCWQG Livestock Water
Sample Date (yyyy mm dd)			2022 10 20	Duplicate	RPD %	2022 10 18	Duplicate	RPD %	2022 10 18	Long-Term Average (WL)[a]	Short-term Maximum (WL)[b]	Long-Term Average (IW)[c]	Short-term Maximum (IW)[d]	Long-Term Average (LW)[e]	Short-term Maximum (LW)[f]
Parameter	**Units**	**RDL**	**Analytical Results**												
Chlorinated Phenols															
Chlorophenol, 2-	µg/L	0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	*	< 0.10	n/a	1,854,000[g]	n/a	n/a	n/a	1,854,000[g]
Chlorophenol, 3-&4-	µg/L	0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	*	< 0.10	n/a	1,854,000[h]	n/a	n/a	n/a	1,854,000[h]
Dichlorophenol, 2,3-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	460,000[g]	n/a	n/a	n/a	460,000[g]
Dichlorophenol, 2,4-&2,5-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	460,000[h]	n/a	n/a	n/a	460,000[h]
Dichlorophenol, 2,6-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	460,000[g]	n/a	n/a	n/a	460,000[g]
Dichlorophenol, 3,4-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	460,000[g]	n/a	n/a	n/a	460,000[g]
Dichlorophenol, 3,5-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	460,000[g]	n/a	n/a	n/a	460,000[g]
Methylphenol, 4-chloro-3-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	n/a	n/a	n/a	n/a	n/a
Trichlorophenol, 2,3,4-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	210,000[g]	n/a	n/a	n/a	210,000[g]
Trichlorophenol, 2,3,5-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	210,000[g]	n/a	n/a	n/a	210,000[g]
Trichlorophenol, 2,3,6-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	210,000[g]	n/a	n/a	n/a	210,000[g]
Trichlorophenol, 2,4,5-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	210,000[g]	n/a	n/a	n/a	210,000[g]
Trichlorophenol, 3,4,5-	µg/L	0.20	< 0.50	< 0.50	*	< 0.20	< 0.20	*	< 0.20	n/a	210,000[g]	n/a	n/a	n/a	210,000[g]
Trichlorophenol, 2,4,6-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	210,000[g]	n/a	n/a	n/a	210,000[g]
Tetrachlorophenol, 2,3,4,6-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	410,000[g]	n/a	n/a	n/a	410,000[g]
Tetrachlorophenol, 2,3,4,5 & 2,3,5,6-	µg/L	0.40	< 0.50	< 0.50	*	< 0.40	< 0.40	*	< 0.40	n/a	410,000[h]	n/a	n/a	n/a	410,000[h]
Pentachlorophenol [PCP]	µg/L	0.20	< 0.50	< 0.50	*	< 0.20	< 0.20	*	< 0.20	n/a	175,000[g]	n/a	n/a	n/a	175,000[g]

Associated CARO file(s): 22J2518.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Wildlife Long-Term Average (WL) guideline
BOLD	Concentration greater than BCWQG Wildlife Short-term Maximum (WL) guideline
OUTLINE	Concentration greater than BCWQG Irrigation Water Long-Term Average (IW) guideline
SHADOW	Concentration greater than BCWQG Irrigation Water Short-term Maximum (IW) guideline
SHADED	Concentration greater than BCWQG Livestock Water Long-Term Average (LW) guideline
RED	Concentration greater than BCWQG Livestock Water Short-term Maximum (LW) guideline

[a] Guideline to protect wildlife, long-term average (i.e. "chronic").
[b] Guideline to protect Wildlife (Short Term), short-term maximum (i.e. "acute").
[c] Guideline to protect irrigation watering, long-term average (i.e. "chronic") .
[d] Guideline to protect irrigation watering, short-term maximum (i.e. "acute").
[e] Guideline to protect livestock water, long-term average (i.e. "chronic").
[f] Guideline to protect livestock water, short-term maximum (i.e. "acute").
[g] Toxicity for non-lactating animals, normal temperatures and low water intake rates.
[h] Toxicity for non-lactating animals, normal temperatures and low water intake rates. Guideline is for most strigent of individual isomers.

TABLE 18B: Summary of Analytical Results for Surface Water - Chlorinated Phenols

Sample Location			HH1-1			HH2-1			HH2-2	BC Guideline		Federal Guideline		
Sample ID			SW22-HH1-1-221020	SW22-A-221020	QA/QC	SW22-HH2-1-221018	SW22-B-221018	QA/QC	SW22-HH2-2-221018	BCWQG Aquatic Life	BCWQG Aquatic Life	CCME CEQG Aquatic Life	Guidelines for Canadian Drinking Water Quality	Guidelines for Canadian Recreational Water Quality
Sample Date (yyyy mm dd)			2022 10 20	Duplicate	RPD %	2022 10 18	Duplicate	RPD %	2022 10 18	Long-Term Chronic (AW)	Short-Term Acute (AW)[b]	(AW)[c]	(GCDWQ)[d]	(GCRWQ)
Parameter	**Units**	**RDL**	**Analytical Results**											
Chlorinated Phenols														
Chlorophenol, 2-	µg/L	0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	*	< 0.10	n/a	3.9[e]	n/a	n/a	n/a
Chlorophenol, 3-&4-	µg/L	0.10	< 0.10	< 0.10	*	< 0.10	< 0.10	*	< 0.10	n/a	1.7[f]	n/a	n/a	n/a
Dichlorophenol, 2,3-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	1.1[e]	n/a	n/a	n/a
Dichlorophenol, 2,4-&2,5-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	0.5[f]	n/a	n/a[g]	n/a
Dichlorophenol, 2,6-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	2[e]	n/a	n/a	n/a
Dichlorophenol, 3,4-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	0.6[e]	n/a	n/a	n/a
Dichlorophenol, 3,5-	µg/L	0.20	< 0.20	< 0.20	*	< 0.20	< 0.20	*	< 0.20	n/a	0.59[e]	n/a	n/a	n/a
Methylphenol, 4-chloro-3-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	n/a	n/a	n/a	n/a
Trichlorophenol, 2,3,4-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	0.5[e]	n/a	n/a	n/a
Trichlorophenol, 2,3,5-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	0.5[e]	n/a	n/a	n/a
Trichlorophenol, 2,3,6-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	1.6[e]	n/a	n/a	n/a
Trichlorophenol, 2,4,5-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	0.5[e]	n/a	n/a	n/a
Trichlorophenol, 3,4,5-	µg/L	0.20	< 0.50[a]	< 0.50[a]	*	< 0.20	< 0.20	*	< 0.20	n/a	0.2[e]	n/a	n/a	n/a
Trichlorophenol, 2,4,6-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	1.2[e]	n/a	5	n/a
Tetrachlorophenol, 2,3,4,6-	µg/L	0.50	< 0.50	< 0.50	*	< 0.50	< 0.50	*	< 0.50	n/a	1.1[e]	n/a	n/a[g]	n/a
Tetrachlorophenol, 2,3,4,5 & 2,3,5,6-	µg/L	0.40	< 0.50[a]	< 0.50[a]	*	< 0.40	< 0.40	*	< 0.40	n/a	0.4[f]	n/a	n/a	n/a
Pentachlorophenol [PCP]	µg/L	0.20	< 0.50[a]	< 0.50[a]	*	< 0.20	< 0.20	*	< 0.20	n/a	0.2[e]	0.5	60	n/a

Associated CARO file(s): 22J2518.
All terms defined within the body of SNC-Lavalin's report.
< Denotes concentration less than indicated detection limit.
- Denotes analysis not conducted.
n/a Denotes no applicable standard/guideline.
QA/QC RPD Denotes quality assurance/quality control relative percent difference
* RPDs are not calculated where one or more concentrations are less than five times RDL.
RDL Denotes reported detection limit.

BOLD	Concentration greater than BCWQG Aquatic Life Long-Term Chronic (AW) guideline
BOLD	Concentration greater than BCWQG Aquatic Life Short-Term Acute (AW) guideline
OUTLINE	Concentration greater than CCME CEQG Aquatic Life (AW) Guideline
SHADOW	Concentration greater than Guidelines for Canadian Drinking Water Quality (GCDWQ) Guideline
SHADED	Concentration greater than Guidelines for Canadian Recreational Water Quality

[a] Laboratory detection limit exceeds regulatory standard/guideline.
[b] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[c] Guideline to protect freshwater aquatic life, short-term maximum (i.e. "acute").
[d] Maximum Acceptable Concentrations.
[e] Guideline is pH and temperature dependent, most stringent guideline applied.
[f] Guideline is pH and temperature dependent, most stringent guideline applied. Guideline is for most strigent of individual isomers.
[g] Guideline withdrawn in 2022 by Health Canada.

Attachment 4

Monitoring Report

SNC·LAVALIN

MONITORING REPORT

Project No.: 690667
Date: 2022-10-18 to 21
Observer: RS/NB
Weather: Partly sunny to raining, 10-15 C
Time: -

Ministry of Environment

Sample Location ID	Depth to NAPL[1] (m)	Sample Depth[2] (m)	Field pH (pH)	Conductivity (µS/cm)	Temperature (°C)	Dissolved Oxygen mg/L	Flow Rate (m/s)	Comments
Nicola River								
HH1-1	-	0.10	8.05	308.0	8.6	10.1	0.61	Flowing, clear, colourless
HH1-2	-	0.10	8.48	337.5	9.0	11.8	0.74	Clear, flowing
HH1-3	-	0.10	8.85	318.0	8.7	13.1	0.81	Clear, no sheen or odours
HH1-4	-	0.10	8.51	313.3	9.5	11.1	0.80	Turbid, fast flowing
HH1-5	-	0.10	8.43	309.1	8.4	12.4	0.92	Turbid, fast flowing
EH1-1	-	0.10	8.51	284.7	9.8	14.4	0.68	Clear, flowing water in back-eddy
EH1-2	-	0.10	8.62	291.5	8.5	13.1	0.67	Turbid, fast flowing
EH1-3	-	-	8.83	315.4	8.7	13.3	0.77	Clear, fast flowing
EH1-4	-	-	8.54	300.0	8.6	11.0	0.92	Clear, fast flowing
EH1-5	-	0.10	8.48	326.0	8.3	12.3	0.88	Turbid, fast flowing
CC1-1	-	0.10	8.47	327.0	8.4	12.5	0.99	Turbid, fast flowing
CC1-2	-	0.10	7.98	322.4	8.6	10.6	0.64	Clear, fast flowing, algae present
CC1-3	-	0.10	8.42	322.8	8.1	12.4	0.92	Turbid, fast flowing
Coldwater River								
HH2-1	-	0.10	7.85	302.7	6.1	12.5	0.26	Clear, flowing
HH2-2	-	0.10	8.44	272.8	8.0	12.6	0.20	Clear, flowing, algae near shore
HH2-3	-	-	-	-	-	-		Could not access
HH2-4	-	0.10	8.44	243.6	10.4	10.7	0.32	Clear, fast flowing
HH2-5	-	0.10	7.83	122.6	4.8	13.5	0.23	Clear, fast flowing
EH2-1	-	-	8.30	296.2	6.0	12.0	0.23	Clear, slow moving, algae
EH2-2	-	-	7.95	159.0	6.4	14.1	0.19	Clear
EH2-3	-	0.10	8.42	253.9	10.5	9.7	0.27	Clear, fast flowing
EH2-4	-	0.10	8.12	224.9	9.5	10.6	0.26	Clear, flowing, algae on shoreline
EH2-5	-	-	7.68	122.1	5.4	12.4	0.21	Fast flowing, clear, iron sheen on water
CC2-1	-	0.05	8.57	211.5	7.9	13.9	0.18	Clear, flowing

[1] Non-Aqueous Phase Liquid
[2] Depth below water surface

Attachment 5

Laboratory Analytical Reports

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2518
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-19 10:07 / 6.6°C
PROJECT	690667	**REPORTED**	2023-02-16 16:37
PROJECT INFO	Flood Disaster Recovery, Merritt	**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: YES

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-1-221018 (22J2518-01) | Matrix: Water | Sampled: 2022-10-18 08:50					
Anions					
Nitrate (as N)	< 0.010	0.010	mg/L	2022-10-21	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-21	
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-21	
Sulfate	**12.4**	1.0	mg/L	2022-10-21	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-22	
EPHw19-32	< 250	250	µg/L	2022-10-22	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*100*	*60-140*	%	*2022-10-22*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**144**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	0.0100	mg/L	N/A	
Nitrogen, Total	**0.0940**	0.0500	mg/L	N/A	
Chlorinated Phenols					
2-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
3 & 4-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L	2022-10-26	
2,3-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,6-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,4-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
3,4,5-Trichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.40	0.40	µg/L	2022-10-26	
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Pentachlorophenol	< 0.20	0.20	µg/L	2022-10-26	
Surrogate: 2,4-Dibromophenol	*63*	*60-130*	%	*2022-10-26*	
Surrogate: 2,4,6-Tribromophenol	*65*	*60-130*	%	*2022-10-26*	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Barium, dissolved	**0.0613**	0.0050	mg/L	2022-10-23	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-1-221018 (22J2518-01) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Dissolved Metals, Continued					
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-23	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-23	
Calcium, dissolved	**44.1**	0.20	mg/L	2022-10-23	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Copper, dissolved	**0.00055**	0.00040	mg/L	2022-10-23	
Iron, dissolved	**0.036**	0.010	mg/L	2022-10-23	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Lithium, dissolved	**0.00036**	0.00010	mg/L	2022-10-23	
Magnesium, dissolved	**8.24**	0.010	mg/L	2022-10-23	
Manganese, dissolved	**0.0360**	0.00020	mg/L	2022-10-23	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-24	
Molybdenum, dissolved	**0.00099**	0.00010	mg/L	2022-10-23	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2022-10-23	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-23	
Potassium, dissolved	**1.20**	0.10	mg/L	2022-10-23	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Silicon, dissolved	**4.8**	1.0	mg/L	2022-10-23	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-23	
Sodium, dissolved	**9.28**	0.10	mg/L	2022-10-23	
Strontium, dissolved	**0.227**	0.0010	mg/L	2022-10-23	
Sulfur, dissolved	**4.3**	3.0	mg/L	2022-10-23	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-23	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-23	
Uranium, dissolved	**0.000640**	0.000020	mg/L	2022-10-23	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-23	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
General Parameters					
Carbon, Total Organic	**2.55**	0.50	mg/L	2022-10-21	
Carbon, Dissolved Organic	**1.80**	0.50	mg/L	2022-10-21	
Nitrogen, Total Kjeldahl	**0.094**	0.050	mg/L	2022-10-24	
pH	**8.07**	0.10	pH units	2022-10-23	HT2
Phosphorus, Total (as P)	**0.0095**	0.0050	mg/L	2022-10-24	
Solids, Total Dissolved	**161**	15	mg/L	2022-10-26	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-25	
Microbiological Parameters					

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-1-221018 (22J2518-01) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Microbiological Parameters, Continued					
Coliforms, Total (Q-Tray)	**345**	1	MPN/100 mL	2022-10-19	HT1
Coliforms, Fecal (Q-Tray)	**8**	1	MPN/100 mL	2022-10-19	HT1
E. coli (Q-Tray)	**8**	1	MPN/100 mL	2022-10-19	HT1
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-01	
Aldrin	< 0.006	0.006	µg/L	2022-11-01	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-01	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-01	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-01	
beta-BHC	< 0.050	0.050	µg/L	2022-11-01	
delta-BHC	< 0.050	0.050	µg/L	2022-11-01	
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-01	
Bromacil	< 0.100	0.100	µg/L	2022-11-01	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-01	
Butachlor	< 0.020	0.020	µg/L	2022-11-01	
Captan	< 0.100	0.100	µg/L	2022-11-01	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-01	
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-01	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-01	
Cyanazine	< 0.100	0.100	µg/L	2022-11-01	
DDT, Total	< 0.010	0.010	µg/L	2022-11-01	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-01	
Diazinon	< 0.020	0.020	µg/L	2022-11-01	
Dichlorvos	< 0.100	0.100	µg/L	2022-11-01	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-01	
Dieldrin	< 0.010	0.010	µg/L	2022-11-01	
Dimethoate	< 0.200	0.200	µg/L	2022-11-01	
Disulfoton	< 0.100	0.100	µg/L	2022-11-01	
Diuron	< 0.200	0.200	µg/L	2022-11-01	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-01	
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-01	
Endrin	< 0.020	0.020	µg/L	2022-11-01	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-01	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-01	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-01	
Heptachlor	< 0.010	0.010	µg/L	2022-11-01	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-01	
Linuron	< 0.050	0.050	µg/L	2022-11-01	
Malathion	< 0.100	0.100	µg/L	2022-11-01	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-01	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-01	
Metolachlor	< 0.100	0.100	µg/L	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-1-221018 (22J2518-01) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Metribuzin	< 0.200	0.200	µg/L	2022-11-01	
Parathion	< 0.100	0.100	µg/L	2022-11-01	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-01	
Permethrin	< 0.064	0.010	µg/L	2022-11-01	RA1
Phorate	< 0.100	0.100	µg/L	2022-11-01	
Prometon	< 1.32	0.300	µg/L	2022-11-01	RQ1
Prometryne	< 0.100	0.100	µg/L	2022-11-01	
Simazine	< 0.200	0.200	µg/L	2022-11-01	
Sulfotep	< 0.100	0.100	µg/L	2022-11-01	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-01	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-01	
Terbufos	< 0.100	0.100	µg/L	2022-11-01	
Triallate	< 0.100	0.100	µg/L	2022-11-01	
Trifluralin	< 0.200	0.200	µg/L	2022-11-01	
Surrogate: Tributyl Phosphate	*88*	*50-140*	%	*2022-11-01*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*74*	*50-140*	%	*2022-11-01*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-22	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-22	
Acridine	< 0.050	0.050	µg/L	2022-10-22	
Anthracene	< 0.010	0.010	µg/L	2022-10-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-22	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-22	
Chrysene	< 0.050	0.050	µg/L	2022-10-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-22	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-22	
Fluorene	< 0.050	0.050	µg/L	2022-10-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-22	
Naphthalene	< 0.200	0.200	µg/L	2022-10-22	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-22	
Pyrene	< 0.020	0.020	µg/L	2022-10-22	
Quinoline	< 0.050	0.050	µg/L	2022-10-22	
Surrogate: Acridine-d9	*67*	*50-140*	%	*2022-10-22*	
Surrogate: Naphthalene-d8	*85*	*50-140*	%	*2022-10-22*	
Surrogate: Perylene-d12	*112*	*50-140*	%	*2022-10-22*	
Total Metals					

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-1-221018 (22J2518-01) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Total Metals, Continued					
Aluminum, total	**0.0133**	0.0050	mg/L	2022-10-24	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-24	
Arsenic, total	< 0.00050	0.00050	mg/L	2022-10-24	
Barium, total	**0.0594**	0.0050	mg/L	2022-10-24	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-24	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-24	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-24	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-24	
Calcium, total	**44.8**	0.20	mg/L	2022-10-24	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-24	
Copper, total	**0.00061**	0.00040	mg/L	2022-10-24	
Iron, total	**0.059**	0.010	mg/L	2022-10-24	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-24	
Lithium, total	**0.00035**	0.00010	mg/L	2022-10-24	
Magnesium, total	**7.87**	0.010	mg/L	2022-10-24	
Manganese, total	**0.0321**	0.00020	mg/L	2022-10-24	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-24	
Molybdenum, total	**0.00102**	0.00010	mg/L	2022-10-24	
Nickel, total	< 0.00040	0.00040	mg/L	2022-10-24	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-24	
Potassium, total	**1.21**	0.10	mg/L	2022-10-24	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Silicon, total	**4.4**	1.0	mg/L	2022-10-24	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-24	
Sodium, total	**8.63**	0.10	mg/L	2022-10-24	
Strontium, total	**0.231**	0.0010	mg/L	2022-10-24	
Sulfur, total	**4.2**	3.0	mg/L	2022-10-24	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-24	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-24	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-24	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-24	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-24	
Uranium, total	**0.000663**	0.000020	mg/L	2022-10-24	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-24	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-24	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-24	
SW22-HH2-2-221018 (22J2518-02) | Matrix: Water | Sampled: 2022-10-18 12:00					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-22	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-2-221018 (22J2518-02) | Matrix: Water | Sampled: 2022-10-18 12:00, Continued					
BCMOE Aggregate Hydrocarbons, Continued					
EPHw19-32	< 250	250	µg/L	2022-10-22	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*99*	*60-140*	%	*2022-10-22*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**140**	0.500	mg/L	N/A	
Chlorinated Phenols					
2-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
3 & 4-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L	2022-10-26	
2,3-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,6-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,4-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
3,4,5-Trichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.40	0.40	µg/L	2022-10-26	
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Pentachlorophenol	< 0.20	0.20	µg/L	2022-10-26	
Surrogate: 2,4-Dibromophenol	*58*	*60-130*	%	*2022-10-26*	S09
Surrogate: 2,4,6-Tribromophenol	*64*	*60-130*	%	*2022-10-26*	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Barium, dissolved	**0.0586**	0.0050	mg/L	2022-10-23	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-23	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-23	
Calcium, dissolved	**43.0**	0.20	mg/L	2022-10-23	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Copper, dissolved	**0.00054**	0.00040	mg/L	2022-10-23	
Iron, dissolved	< 0.010	0.010	mg/L	2022-10-23	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-2-221018 (22J2518-02) | Matrix: Water | Sampled: 2022-10-18 12:00, Continued					
Dissolved Metals, Continued					
Lithium, dissolved	**0.00031**	0.00010	mg/L	2022-10-23	
Magnesium, dissolved	**7.95**	0.010	mg/L	2022-10-23	
Manganese, dissolved	**0.00270**	0.00020	mg/L	2022-10-23	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-24	
Molybdenum, dissolved	**0.00096**	0.00010	mg/L	2022-10-23	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2022-10-23	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-23	
Potassium, dissolved	**1.13**	0.10	mg/L	2022-10-23	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Silicon, dissolved	**4.6**	1.0	mg/L	2022-10-23	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-23	
Sodium, dissolved	**9.05**	0.10	mg/L	2022-10-23	
Strontium, dissolved	**0.221**	0.0010	mg/L	2022-10-23	
Sulfur, dissolved	**4.2**	3.0	mg/L	2022-10-23	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-23	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-23	
Uranium, dissolved	**0.000636**	0.000020	mg/L	2022-10-23	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-23	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
General Parameters					
Carbon, Total Organic	**2.52**	0.50	mg/L	2022-10-21	
Carbon, Dissolved Organic	**2.28**	0.50	mg/L	2022-10-21	
pH	**8.20**	0.10	pH units	2022-10-23	HT2
Solids, Total Dissolved	**164**	15	mg/L	2022-10-26	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-25	
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**488**	1	MPN/100 mL	2022-10-19	
Coliforms, Fecal (Q-Tray)	**9**	1	MPN/100 mL	2022-10-19	
E. coli (Q-Tray)	**9**	1	MPN/100 mL	2022-10-19	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-22	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-22	
Acridine	< 0.050	0.050	µg/L	2022-10-22	
Anthracene	< 0.010	0.010	µg/L	2022-10-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-22	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-2-221018 (22J2518-02) | Matrix: Water | Sampled: 2022-10-18 12:00, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-22	
Chrysene	< 0.050	0.050	µg/L	2022-10-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-22	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-22	
Fluorene	< 0.050	0.050	µg/L	2022-10-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-22	
Naphthalene	< 0.200	0.200	µg/L	2022-10-22	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-22	
Pyrene	< 0.020	0.020	µg/L	2022-10-22	
Quinoline	< 0.050	0.050	µg/L	2022-10-22	
Surrogate: Acridine-d9	*67*	*50-140*	%	*2022-10-22*	
Surrogate: Naphthalene-d8	*85*	*50-140*	%	*2022-10-22*	
Surrogate: Perylene-d12	*113*	*50-140*	%	*2022-10-22*	
Total Metals					
Aluminum, total	**0.0114**	0.0050	mg/L	2022-10-24	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-24	
Arsenic, total	< 0.00050	0.00050	mg/L	2022-10-24	
Barium, total	**0.0568**	0.0050	mg/L	2022-10-24	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-24	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-24	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-24	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-24	
Calcium, total	**45.3**	0.20	mg/L	2022-10-24	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-24	
Copper, total	**0.00060**	0.00040	mg/L	2022-10-24	
Iron, total	**0.019**	0.010	mg/L	2022-10-24	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-24	
Lithium, total	**0.00033**	0.00010	mg/L	2022-10-24	
Magnesium, total	**7.82**	0.010	mg/L	2022-10-24	
Manganese, total	**0.00371**	0.00020	mg/L	2022-10-24	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-24	
Molybdenum, total	**0.00099**	0.00010	mg/L	2022-10-24	
Nickel, total	< 0.00040	0.00040	mg/L	2022-10-24	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-24	
Potassium, total	**1.15**	0.10	mg/L	2022-10-24	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-24	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-2-221018 (22J2518-02) | Matrix: Water | Sampled: 2022-10-18 12:00, Continued					
Total Metals, Continued					
Silicon, total	**4.4**	1.0	mg/L	2022-10-24	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-24	
Sodium, total	**8.51**	0.10	mg/L	2022-10-24	
Strontium, total	**0.229**	0.0010	mg/L	2022-10-24	
Sulfur, total	**4.0**	3.0	mg/L	2022-10-24	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-24	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-24	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-24	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-24	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-24	
Uranium, total	**0.000662**	0.000020	mg/L	2022-10-24	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-24	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-24	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-24	
SW22-B-221018 (22J2518-03) | Matrix: Water | Sampled: 2022-10-18 08:50					
Anions					
Nitrate (as N)	< 0.010	0.010	mg/L	2022-10-21	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-21	
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-21	
Sulfate	**12.3**	1.0	mg/L	2022-10-21	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-22	
EPHw19-32	< 250	250	µg/L	2022-10-22	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*97*	*60-140*	%	*2022-10-22*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**141**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	0.0100	mg/L	N/A	
Nitrogen, Total	**0.0510**	0.0500	mg/L	N/A	
Chlorinated Phenols					
2-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
3 & 4-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L	2022-10-26	
2,3-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,6-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,4-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-B-221018 (22J2518-03) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Chlorinated Phenols, Continued					
3,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
3,4,5-Trichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.40	0.40	µg/L	2022-10-26	
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Pentachlorophenol	< 0.20	0.20	µg/L	2022-10-26	
Surrogate: 2,4-Dibromophenol	*63*	*60-130*	%	*2022-10-26*	
Surrogate: 2,4,6-Tribromophenol	*68*	*60-130*	%	*2022-10-26*	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Barium, dissolved	**0.0615**	0.0050	mg/L	2022-10-23	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-23	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-23	
Calcium, dissolved	**42.8**	0.20	mg/L	2022-10-23	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Copper, dissolved	**0.00055**	0.00040	mg/L	2022-10-23	
Iron, dissolved	**0.037**	0.010	mg/L	2022-10-23	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Lithium, dissolved	**0.00035**	0.00010	mg/L	2022-10-23	
Magnesium, dissolved	**8.25**	0.010	mg/L	2022-10-23	
Manganese, dissolved	**0.0359**	0.00020	mg/L	2022-10-23	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-24	
Molybdenum, dissolved	**0.00100**	0.00010	mg/L	2022-10-23	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2022-10-23	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-23	
Potassium, dissolved	**1.21**	0.10	mg/L	2022-10-23	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	
Silicon, dissolved	**4.8**	1.0	mg/L	2022-10-23	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-23	
Sodium, dissolved	**9.31**	0.10	mg/L	2022-10-23	
Strontium, dissolved	**0.230**	0.0010	mg/L	2022-10-23	
Sulfur, dissolved	**4.3**	3.0	mg/L	2022-10-23	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-23	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-B-221018 (22J2518-03) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Dissolved Metals, Continued					
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-23	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-23	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-23	
Uranium, dissolved	**0.000645**	0.000020	mg/L	2022-10-23	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-23	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-23	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-23	
General Parameters					
Carbon, Total Organic	**1.95**	0.50	mg/L	2022-10-21	
Carbon, Dissolved Organic	**1.15**	0.50	mg/L	2022-10-21	
Nitrogen, Total Kjeldahl	**0.051**	0.050	mg/L	2022-10-24	
pH	**8.10**	0.10	pH units	2022-10-23	HT2
Phosphorus, Total (as P)	**0.0104**	0.0050	mg/L	2022-10-24	
Solids, Total Dissolved	**168**	15	mg/L	2022-10-26	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-25	
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**727**	1	MPN/100 mL	2022-10-19	HT1
Coliforms, Fecal (Q-Tray)	**8**	1	MPN/100 mL	2022-10-19	HT1
E. coli (Q-Tray)	**8**	1	MPN/100 mL	2022-10-19	HT1
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-01	
Aldrin	< 0.006	0.006	µg/L	2022-11-01	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-01	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-01	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-01	
beta-BHC	< 0.050	0.050	µg/L	2022-11-01	
delta-BHC	< 0.050	0.050	µg/L	2022-11-01	
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-01	
Bromacil	< 0.100	0.100	µg/L	2022-11-01	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-01	
Butachlor	< 0.020	0.020	µg/L	2022-11-01	
Captan	< 0.100	0.100	µg/L	2022-11-01	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-01	
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-01	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-01	
Cyanazine	< 0.100	0.100	µg/L	2022-11-01	
DDT, Total	< 0.010	0.010	µg/L	2022-11-01	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-01	
Diazinon	< 0.020	0.020	µg/L	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-B-221018 (22J2518-03) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Dichlorvos	< 0.100	0.100	µg/L	2022-11-01	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-01	
Dieldrin	< 0.010	0.010	µg/L	2022-11-01	
Dimethoate	< 0.200	0.200	µg/L	2022-11-01	
Disulfoton	< 0.100	0.100	µg/L	2022-11-01	
Diuron	< 0.200	0.200	µg/L	2022-11-01	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-01	
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-01	
Endrin	< 0.020	0.020	µg/L	2022-11-01	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-01	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-01	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-01	
Heptachlor	< 0.010	0.010	µg/L	2022-11-01	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-01	
Linuron	< 0.050	0.050	µg/L	2022-11-01	
Malathion	< 0.100	0.100	µg/L	2022-11-01	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-01	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-01	
Metolachlor	< 0.100	0.100	µg/L	2022-11-01	
Metribuzin	< 0.200	0.200	µg/L	2022-11-01	
Parathion	< 0.100	0.100	µg/L	2022-11-01	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-01	
Permethrin	< 0.010	0.010	µg/L	2022-11-01	
Phorate	< 0.100	0.100	µg/L	2022-11-01	
Prometon	< 1.32	0.300	µg/L	2022-11-01	RQ1
Prometryne	< 0.100	0.100	µg/L	2022-11-01	
Simazine	< 0.200	0.200	µg/L	2022-11-01	
Sulfotep	< 0.100	0.100	µg/L	2022-11-01	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-01	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-01	
Terbufos	< 0.100	0.100	µg/L	2022-11-01	
Triallate	< 0.100	0.100	µg/L	2022-11-01	
Trifluralin	< 0.200	0.200	µg/L	2022-11-01	
Surrogate: Tributyl Phosphate	*71*	*50-140*	%	*2022-11-01*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*56*	*50-140*	%	*2022-11-01*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-22	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-22	
Acridine	< 0.050	0.050	µg/L	2022-10-22	
Anthracene	< 0.010	0.010	µg/L	2022-10-22	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-22	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-22	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-B-221018 (22J2518-03) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-22	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-22	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-22	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-22	
Chrysene	< 0.050	0.050	µg/L	2022-10-22	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-22	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-22	
Fluorene	< 0.050	0.050	µg/L	2022-10-22	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-22	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-22	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-22	
Naphthalene	< 0.200	0.200	µg/L	2022-10-22	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-22	
Pyrene	< 0.020	0.020	µg/L	2022-10-22	
Quinoline	< 0.050	0.050	µg/L	2022-10-22	
Surrogate: Acridine-d9	*68*	*50-140*	%	*2022-10-22*	
Surrogate: Naphthalene-d8	*85*	*50-140*	%	*2022-10-22*	
Surrogate: Perylene-d12	*114*	*50-140*	%	*2022-10-22*	
Total Metals					
Aluminum, total	**0.0150**	0.0050	mg/L	2022-10-24	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-24	
Arsenic, total	< 0.00050	0.00050	mg/L	2022-10-24	
Barium, total	**0.0573**	0.0050	mg/L	2022-10-24	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-24	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-24	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-24	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-24	
Calcium, total	**44.9**	0.20	mg/L	2022-10-24	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-24	
Copper, total	**0.00060**	0.00040	mg/L	2022-10-24	
Iron, total	**0.060**	0.010	mg/L	2022-10-24	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-24	
Lithium, total	**0.00038**	0.00010	mg/L	2022-10-24	
Magnesium, total	**7.76**	0.010	mg/L	2022-10-24	
Manganese, total	**0.0317**	0.00020	mg/L	2022-10-24	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-24	
Molybdenum, total	**0.00100**	0.00010	mg/L	2022-10-24	
Nickel, total	< 0.00040	0.00040	mg/L	2022-10-24	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-24	
Potassium, total	**1.17**	0.10	mg/L	2022-10-24	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-24	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-B-221018 (22J2518-03) | Matrix: Water | Sampled: 2022-10-18 08:50, Continued					
Total Metals, Continued					
Silicon, total	**4.5**	1.0	mg/L	2022-10-24	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-24	
Sodium, total	**8.50**	0.10	mg/L	2022-10-24	
Strontium, total	**0.226**	0.0010	mg/L	2022-10-24	
Sulfur, total	**4.2**	3.0	mg/L	2022-10-24	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-24	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-24	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-24	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-24	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-24	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-24	
Uranium, total	**0.000644**	0.000020	mg/L	2022-10-24	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-24	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-24	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-24	

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
RA1	The Reporting Limit has been raised due to matrix interference.
RQ1	Reporting limits have been raised due to QC bias.
S09	The surrogate recovery for this sample is outside of established control limits .

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
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Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Carbon, Dissolved Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Coliforms, Fecal in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Coliforms, Total in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2021)	Block Digestion and Flow Injection Analysis	✓	Kelowna
Pesticides in Water	EPA 3510C* / EPA 8270D*	Liquid-Liquid DCM Extraction (B/N) / GC-MSD (SIM)	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Phenols, Chlorinated in Water	EPA 3510C* / EPA 8270D	Liquid-Liquid DCM Extraction (Acidic) / GC-MSD (SIM)	✓	Richmond
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	✓	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	✓	Richmond
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Solids, Total Suspended in Water	Solids in Water, Filtered / SM 2540 D* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
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General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline (s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B2J2271										
Blank (B2J2271-BLK1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B2J2271-BLK2)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B2J2271-BLK3)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B2J2271-BS1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Nitrate (as N)	3.92	0.010	mg/L	4.00		98	90-110			
Nitrite (as N)	1.80	0.010	mg/L	2.00		90	85-115			
Phosphate (as P)	1.01	0.0050	mg/L	1.00		101	80-120			
Sulfate	15.5	1.0	mg/L	16.0		97	90-110			
LCS (B2J2271-BS2)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Nitrate (as N)	4.03	0.010	mg/L	4.00		101	90-110			
Nitrite (as N)	1.88	0.010	mg/L	2.00		94	85-115			
Phosphate (as P)	1.06	0.0050	mg/L	1.00		106	80-120			
Sulfate	15.4	1.0	mg/L	16.0		96	90-110			
LCS (B2J2271-BS3)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Nitrate (as N)	4.02	0.010	mg/L	4.00		100	90-110			
Nitrite (as N)	1.85	0.010	mg/L	2.00		93	85-115			
Phosphate (as P)	1.08	0.0050	mg/L	1.00		108	80-120			
Sulfate	16.4	1.0	mg/L	16.0		102	90-110			
BCMOE Aggregate Hydrocarbons, Batch B2J2426										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J2426, Continued										
Blank (B2J2426-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-22						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2050*		*µg/L*	2220		*92*	*60-140*			
LCS (B2J2426-BS2)				Prepared: 2022-10-21, Analyzed: 2022-10-22						
EPHw10-19	15900	250	µg/L	15400		103	70-130			
EPHw19-32	23000	250	µg/L	22100		104	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1750*		*µg/L*	2220		*79*	*60-140*			
LCS Dup (B2J2426-BSD2)				Prepared: 2022-10-21, Analyzed: 2022-10-22						
EPHw10-19	16100	250	µg/L	15400		105	70-130	1	20	
EPHw19-32	23400	250	µg/L	22100		106	70-130	2	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1630*		*µg/L*	2220		*73*	*60-140*			
Chlorinated Phenols, Batch B2J2994										
Blank (B2J2994-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
2-Chlorophenol	< 0.10	0.10	µg/L							
3 & 4-Chlorophenol	< 0.10	0.10	µg/L							
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L							
2,3-Dichlorophenol	< 0.20	0.20	µg/L							
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L							
2,6-Dichlorophenol	< 0.20	0.20	µg/L							
3,4-Dichlorophenol	< 0.20	0.20	µg/L							
3,5-Dichlorophenol	< 0.20	0.20	µg/L							
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L							
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L							
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L							
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L							
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L							
3,4,5-Trichlorophenol	< 0.20	0.20	µg/L							
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.40	0.40	µg/L							
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L							
Pentachlorophenol	< 0.20	0.20	µg/L							
Surrogate: 2,4-Dibromophenol	*1.25*		*µg/L*	2.00		*63*	*60-130*			
Surrogate: 2,4,6-Tribromophenol	*1.30*		*µg/L*	2.00		*65*	*60-130*			
LCS (B2J2994-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
2-Chlorophenol	6.40	0.10	µg/L	10.0		64	60-130			
3 & 4-Chlorophenol	12.7	0.10	µg/L	19.8		65	60-130			
4-Chloro-3-Methylphenol	7.89	0.50	µg/L	10.2		77	60-130			
2,3-Dichlorophenol	6.82	0.20	µg/L	10.1		68	60-130			
2,4 & 2,5-Dichlorophenol	16.6	0.20	µg/L	20.2		82	60-130			
2,6-Dichlorophenol	8.49	0.20	µg/L	10.0		85	60-130			
3,4-Dichlorophenol	6.86	0.20	µg/L	10.0		68	60-130			
3,5-Dichlorophenol	8.08	0.20	µg/L	10.2		80	60-130			
2,3,4-Trichlorophenol	8.98	0.50	µg/L	10.0		89	60-130			
2,3,5-Trichlorophenol	9.69	0.50	µg/L	10.0		96	60-130			
2,3,6-Trichlorophenol	9.87	0.50	µg/L	10.0		98	60-130			
2,4,5-Trichlorophenol	9.44	0.50	µg/L	10.0		94	60-130			
2,4,6-Trichlorophenol	9.93	0.50	µg/L	9.95		100	60-130			
3,4,5-Trichlorophenol	9.83	0.50	µg/L	10.0		98	60-130			
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	22.4	0.50	µg/L	19.9		112	60-130			
2,3,4,6-Tetrachlorophenol	9.54	0.50	µg/L	10.0		95	60-130			
Pentachlorophenol	11.6	0.50	µg/L	9.95		117	60-130			
Surrogate: 2,4-Dibromophenol	*1.90*		*µg/L*	2.00		*95*	*60-130*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Chlorinated Phenols, Batch B2J2994, Continued										
LCS (B2J2994-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Surrogate: 2,4,6-Tribromophenol	*2.00*		*µg/L*	2.00		*100*	*60-130*			
LCS Dup (B2J2994-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
2-Chlorophenol	6.20	0.10	µg/L	10.0		62	60-130	3	40	
3 & 4-Chlorophenol	16.1	0.10	µg/L	19.8		81	60-130	23	40	
4-Chloro-3-Methylphenol	7.71	0.50	µg/L	10.2		76	60-130	2	40	
2,3-Dichlorophenol	6.22	0.20	µg/L	10.1		62	60-130	9	40	
2,4 & 2,5-Dichlorophenol	14.7	0.20	µg/L	20.2		73	60-130	12	40	
2,6-Dichlorophenol	7.17	0.20	µg/L	10.0		72	60-130	17	40	
3,4-Dichlorophenol	7.57	0.20	µg/L	10.0		75	60-130	10	40	
3,5-Dichlorophenol	8.09	0.20	µg/L	10.2		80	60-130	< 1	40	
2,3,4-Trichlorophenol	7.26	0.50	µg/L	10.0		72	60-130	21	40	
2,3,5-Trichlorophenol	7.41	0.50	µg/L	10.0		74	60-130	27	40	
2,3,6-Trichlorophenol	7.75	0.50	µg/L	10.0		77	60-130	24	40	
2,4,5-Trichlorophenol	6.85	0.50	µg/L	10.0		68	60-130	32	40	
2,4,6-Trichlorophenol	7.89	0.50	µg/L	9.95		79	60-130	23	40	
3,4,5-Trichlorophenol	8.75	0.50	µg/L	10.0		88	60-130	12	40	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	15.6	0.50	µg/L	19.9		78	60-130	36	40	
2,3,4,6-Tetrachlorophenol	7.13	0.50	µg/L	10.0		71	60-130	29	40	
Pentachlorophenol	9.28	0.50	µg/L	9.95		93	60-130	22	40	
Surrogate: 2,4-Dibromophenol	*1.54*		*µg/L*	2.00		*77*	*60-130*			
Surrogate: 2,4,6-Tribromophenol	*1.61*		*µg/L*	2.00		*80*	*60-130*			
Dissolved Metals, Batch B2J2661										
Blank (B2J2661-BLK1)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J2661, Continued										
Blank (B2J2661-BLK1), Continued				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B2J2661-BS1)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Aluminum, dissolved	3.97	0.0050	mg/L	4.00		99	80-120			
Antimony, dissolved	0.0414	0.00020	mg/L	0.0400		103	80-120			
Arsenic, dissolved	0.0421	0.00050	mg/L	0.0400		105	80-120			
Barium, dissolved	0.0397	0.0050	mg/L	0.0400		99	80-120			
Beryllium, dissolved	0.0393	0.00010	mg/L	0.0400		98	80-120			
Bismuth, dissolved	0.0409	0.00010	mg/L	0.0400		102	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400		105	80-120			
Cadmium, dissolved	0.0408	0.000010	mg/L	0.0400		102	80-120			
Calcium, dissolved	3.99	0.20	mg/L	4.00		100	80-120			
Chromium, dissolved	0.0404	0.00050	mg/L	0.0400		101	80-120			
Cobalt, dissolved	0.0404	0.00010	mg/L	0.0400		101	80-120			
Copper, dissolved	0.0404	0.00040	mg/L	0.0400		101	80-120			
Iron, dissolved	4.03	0.010	mg/L	4.00		101	80-120			
Lead, dissolved	0.0414	0.00020	mg/L	0.0400		104	80-120			
Lithium, dissolved	0.0414	0.00010	mg/L	0.0400		104	80-120			
Magnesium, dissolved	3.97	0.010	mg/L	4.00		99	80-120			
Manganese, dissolved	0.0408	0.00020	mg/L	0.0400		102	80-120			
Molybdenum, dissolved	0.0402	0.00010	mg/L	0.0400		100	80-120			
Nickel, dissolved	0.0404	0.00040	mg/L	0.0400		101	80-120			
Phosphorus, dissolved	3.97	0.050	mg/L	4.00		99	80-120			
Potassium, dissolved	3.98	0.10	mg/L	4.00		99	80-120			
Selenium, dissolved	0.0408	0.00050	mg/L	0.0400		102	80-120			
Silicon, dissolved	4.4	1.0	mg/L	4.00		110	80-120			
Silver, dissolved	0.0412	0.000050	mg/L	0.0400		103	80-120			
Sodium, dissolved	4.02	0.10	mg/L	4.00		101	80-120			
Strontium, dissolved	0.0416	0.0010	mg/L	0.0400		104	80-120			
Sulfur, dissolved	41.2	3.0	mg/L	40.0		103	80-120			
Tellurium, dissolved	0.0410	0.00050	mg/L	0.0400		103	80-120			
Thallium, dissolved	0.0406	0.000020	mg/L	0.0400		101	80-120			
Thorium, dissolved	0.0422	0.00010	mg/L	0.0400		106	80-120			
Tin, dissolved	0.0409	0.00020	mg/L	0.0400		102	80-120			
Titanium, dissolved	0.0395	0.0050	mg/L	0.0400		99	80-120			
Tungsten, dissolved	0.0420	0.0010	mg/L	0.0400		105	80-120			
Uranium, dissolved	0.0415	0.000020	mg/L	0.0400		104	80-120			
Vanadium, dissolved	0.0404	0.0050	mg/L	0.0400		101	80-120			
Zinc, dissolved	0.0385	0.0040	mg/L	0.0400		96	80-120			
Zirconium, dissolved	0.0406	0.00010	mg/L	0.0400		102	80-120			
Duplicate (B2J2661-DUP1)		**Source: 22J2518-01**		Prepared: 2022-10-23, Analyzed: 2022-10-23						
Aluminum, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Antimony, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Arsenic, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Barium, dissolved	0.0612	0.0050	mg/L		0.0613			< 1	20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Boron, dissolved	< 0.0500	0.0500	mg/L		< 0.0500				20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L		< 0.000010				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J2661, Continued										
Duplicate (B2J2661-DUP1), Continued		**Source: 22J2518-01**		Prepared: 2022-10-23, Analyzed: 2022-10-23						
Calcium, dissolved	44.4	0.20	mg/L		44.1			< 1	20	
Chromium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Copper, dissolved	0.00055	0.00040	mg/L		0.00055				20	
Iron, dissolved	0.036	0.010	mg/L		0.036				20	
Lead, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Lithium, dissolved	0.00037	0.00010	mg/L		0.00036				20	
Magnesium, dissolved	8.30	0.010	mg/L		8.24			< 1	20	
Manganese, dissolved	0.0357	0.00020	mg/L		0.0360			< 1	20	
Molybdenum, dissolved	0.00100	0.00010	mg/L		0.00099			2	20	
Nickel, dissolved	< 0.00040	0.00040	mg/L		< 0.00040				20	
Phosphorus, dissolved	< 0.050	0.050	mg/L		< 0.050				20	
Potassium, dissolved	1.21	0.10	mg/L		1.20			< 1	20	
Selenium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Silicon, dissolved	4.7	1.0	mg/L		4.8				20	
Silver, dissolved	< 0.000050	0.000050	mg/L		< 0.000050				20	
Sodium, dissolved	9.33	0.10	mg/L		9.28			< 1	20	
Strontium, dissolved	0.226	0.0010	mg/L		0.227			< 1	20	
Sulfur, dissolved	4.2	3.0	mg/L		4.3				20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020	mg/L		< 0.000020				20	
Thorium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Tin, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Uranium, dissolved	0.000649	0.000020	mg/L		0.000640			1	20	
Vanadium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Zinc, dissolved	< 0.0040	0.0040	mg/L		< 0.0040				20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Matrix Spike (B2J2661-MS1)		**Source: 22J2518-02**		Prepared: 2022-10-23, Analyzed: 2022-10-23						
Aluminum, dissolved	4.06	0.0050	mg/L	4.00	< 0.0050	101	70-130			
Antimony, dissolved	0.0368	0.00020	mg/L	0.0400	< 0.00020	92	70-130			
Arsenic, dissolved	0.0415	0.00050	mg/L	0.0400	< 0.00050	103	70-130			
Barium, dissolved	0.0966	0.0050	mg/L	0.0400	0.0586	95	70-130			
Beryllium, dissolved	0.0406	0.00010	mg/L	0.0400	< 0.00010	101	70-130			
Bismuth, dissolved	0.0336	0.00010	mg/L	0.0400	< 0.00010	84	70-130			
Boron, dissolved	0.0544	0.0500	mg/L	0.0400	< 0.0500	120	70-130			
Cadmium, dissolved	0.0396	0.000010	mg/L	0.0400	< 0.000010	99	70-130			
Calcium, dissolved	46.8	0.20	mg/L	4.00	43.0	96	70-130			
Chromium, dissolved	0.0392	0.00050	mg/L	0.0400	< 0.00050	97	70-130			
Cobalt, dissolved	0.0381	0.00010	mg/L	0.0400	< 0.00010	95	70-130			
Copper, dissolved	0.0382	0.00040	mg/L	0.0400	0.00054	94	70-130			
Iron, dissolved	3.83	0.010	mg/L	4.00	< 0.010	96	70-130			
Lead, dissolved	0.0389	0.00020	mg/L	0.0400	< 0.00020	97	70-130			
Lithium, dissolved	0.0415	0.00010	mg/L	0.0400	0.00031	103	70-130			
Magnesium, dissolved	11.5	0.010	mg/L	4.00	7.95	89	70-130			
Manganese, dissolved	0.0417	0.00020	mg/L	0.0400	0.00270	97	70-130			
Molybdenum, dissolved	0.0395	0.00010	mg/L	0.0400	0.00096	96	70-130			
Nickel, dissolved	0.0382	0.00040	mg/L	0.0400	< 0.00040	95	70-130			
Phosphorus, dissolved	4.19	0.050	mg/L	4.00	< 0.050	105	70-130			
Potassium, dissolved	5.17	0.10	mg/L	4.00	1.13	101	70-130			
Selenium, dissolved	0.0403	0.00050	mg/L	0.0400	< 0.00050	101	70-130			
Silicon, dissolved	8.9	1.0	mg/L	4.00	4.6	107	70-130			
Silver, dissolved	0.0389	0.000050	mg/L	0.0400	< 0.000050	97	70-130			
Sodium, dissolved	12.5	0.10	mg/L	4.00	9.05	85	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2518
REPORTED 2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J2661, Continued										
Matrix Spike (B2J2661-MS1), Continued	**Source: 22J2518-02**			Prepared: 2022-10-23, Analyzed: 2022-10-23						
Strontium, dissolved	0.276	0.0010	mg/L	0.0400	0.221	138	70-130			MS2
Sulfur, dissolved	44.8	3.0	mg/L	40.0	4.2	102	70-130			
Tellurium, dissolved	0.0413	0.00050	mg/L	0.0400	< 0.00050	103	70-130			
Thallium, dissolved	0.0389	0.000020	mg/L	0.0400	< 0.000020	97	70-130			
Thorium, dissolved	0.0398	0.00010	mg/L	0.0400	< 0.00010	99	70-130			
Tin, dissolved	0.0400	0.00020	mg/L	0.0400	< 0.00020	100	70-130			
Titanium, dissolved	0.0397	0.0050	mg/L	0.0400	< 0.0050	99	70-130			
Tungsten, dissolved	0.0385	0.0010	mg/L	0.0400	< 0.0010	96	70-130			
Uranium, dissolved	0.0405	0.000020	mg/L	0.0400	0.000636	100	70-130			
Vanadium, dissolved	0.0409	0.0050	mg/L	0.0400	< 0.0050	100	70-130			
Zinc, dissolved	0.0377	0.0040	mg/L	0.0400	< 0.0040	93	70-130			
Zirconium, dissolved	0.0399	0.00010	mg/L	0.0400	< 0.00010	100	70-130			
Dissolved Metals, Batch B2J2703										
Blank (B2J2703-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J2703-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J2703-BLK3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B2J2703-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, dissolved	0.000492	0.000010	mg/L	0.000500		98	80-120			
LCS (B2J2703-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, dissolved	0.000511	0.000010	mg/L	0.000500		102	80-120			
LCS (B2J2703-BS3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, dissolved	0.000539	0.000010	mg/L	0.000500		108	80-120			
General Parameters, Batch B2J1993										
Blank (B2J1993-BLK1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J1993-BLK2)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J1993-BLK3)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
LCS (B2J1993-BS1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Carbon, Total Organic	9.42	0.50	mg/L	10.0		94	78-116			
Carbon, Dissolved Organic	9.23	0.50	mg/L	10.0		92	78-116			
LCS (B2J1993-BS2)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Carbon, Total Organic	9.21	0.50	mg/L	10.0		92	78-116			
Carbon, Dissolved Organic	9.10	0.50	mg/L	10.0		91	78-116			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J1993, Continued										
LCS (B2J1993-BS3)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Carbon, Total Organic	9.37	0.50	mg/L	10.0		94	78-116			
Carbon, Dissolved Organic	9.07	0.50	mg/L	10.0		91	78-116			
General Parameters, Batch B2J2651										
Blank (B2J2651-BLK1)				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Nitrogen, Total Kjeldahl	< 0.050	0.050	mg/L							
Blank (B2J2651-BLK2)				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Nitrogen, Total Kjeldahl	< 0.050	0.050	mg/L							
LCS (B2J2651-BS1)				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Nitrogen, Total Kjeldahl	0.989	0.050	mg/L	1.00		99	85-115			
LCS (B2J2651-BS2)				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Nitrogen, Total Kjeldahl	0.989	0.050	mg/L	1.00		99	85-115			
General Parameters, Batch B2J2671										
Reference (B2J2671-SRM1)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B2J2671-SRM2)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B2J2671-SRM3)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
pH	7.02	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B2J2692										
Blank (B2J2692-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Phosphorus, Total (as P)	< 0.0050	0.0050	mg/L							
Blank (B2J2692-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Phosphorus, Total (as P)	< 0.0050	0.0050	mg/L							
LCS (B2J2692-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Phosphorus, Total (as P)	0.105	0.0050	mg/L	0.100		105	85-115			
LCS (B2J2692-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Phosphorus, Total (as P)	0.106	0.0050	mg/L	0.100		106	85-115			
General Parameters, Batch B2J2706										
Blank (B2J2706-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B2J2706-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
Solids, Total Suspended	91.0	10.0	mg/L	100		91	85-115			
General Parameters, Batch B2J2774										
Blank (B2J2774-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	< 15	15	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2774, Continued										
Blank (B2J2774-BLK2)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B2J2774-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	253	15	mg/L	240		105	85-115			
LCS (B2J2774-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	259	15	mg/L	240		108	85-115			
Microbiological Parameters, Batch B2J2160										
Blank (B2J2160-BLK1)				Prepared: 2022-10-19, Analyzed: 2022-10-19						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2160-BLK2)				Prepared: 2022-10-19, Analyzed: 2022-10-19						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2160-BLK3)				Prepared: 2022-10-19, Analyzed: 2022-10-19						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2160-BLK4)				Prepared: 2022-10-19, Analyzed: 2022-10-19						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2160-BLK5)				Prepared: 2022-10-19, Analyzed: 2022-10-19						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2160-BLK6)				Prepared: 2022-10-19, Analyzed: 2022-10-19						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Pesticides, Herbicides, and Fungicides, Batch B2J2906										
Blank (B2J2906-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	< 0.100	0.100	µg/L							
Aldrin	< 0.006	0.006	µg/L							
Atrazine and metabolites	< 0.100	0.100	µg/L							
Azinphos-methyl	< 0.200	0.200	µg/L							
alpha-BHC	< 0.010	0.010	µg/L							
beta-BHC	< 0.050	0.050	µg/L							
delta-BHC	< 0.050	0.050	µg/L							
gamma-BHC (Lindane)	< 0.050	0.050	µg/L							
Bromacil	< 0.100	0.100	µg/L							
Bromoxynil	< 0.200	0.200	µg/L							
Butachlor	< 0.020	0.020	µg/L							
Captan	< 0.100	0.100	µg/L							
Chlordane (cis + trans)	< 0.050	0.050	µg/L							
Chlorothalonil	< 0.050	0.050	µg/L							
Chlorpyrifos	< 0.010	0.010	µg/L							
Cyanazine	< 0.100	0.100	µg/L							
DDT, Total	0.012	0.010	µg/L							BLK
Deltamethrin	0.151	0.100	µg/L							BLK
Diazinon	< 0.020	0.020	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
Blank (B2J2906-BLK1), Continued				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Dichlorvos	< 0.100	0.100	µg/L							
Diclofop-methyl	< 0.100	0.100	µg/L							
Dieldrin	< 0.010	0.010	µg/L							
Dimethoate	< 0.200	0.200	µg/L							
Disulfoton	< 0.100	0.100	µg/L							
Diuron	< 0.200	0.200	µg/L							
Endosulfan I + II	< 0.010	0.010	µg/L							
Endosulfan sulfate	< 0.050	0.050	µg/L							
Endrin	< 0.020	0.020	µg/L							
Endrin aldehyde	< 0.020	0.020	µg/L							
Endrin ketone	< 0.020	0.020	µg/L							
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L							
Heptachlor	< 0.010	0.010	µg/L							
Heptachlor epoxide	< 0.010	0.010	µg/L							
Linuron	< 0.050	0.050	µg/L							
Malathion	< 0.100	0.100	µg/L							
Methoxychlor	< 0.050	0.050	µg/L							
Methyl parathion	< 0.100	0.100	µg/L							
Metolachlor	< 0.100	0.100	µg/L							
Metribuzin	< 0.200	0.200	µg/L							
Parathion	< 0.100	0.100	µg/L							
Pentachloronitrobenzene	< 0.100	0.100	µg/L							
Permethrin	0.015	0.010	µg/L							BLK
Phorate	< 0.100	0.100	µg/L							
Prometon	< 0.300	0.300	µg/L							RQ1
Prometryne	< 0.100	0.100	µg/L							
Simazine	< 0.200	0.200	µg/L							
Sulfotep	< 0.100	0.100	µg/L							
Tebuthiuron	< 0.200	0.200	µg/L							
Temephos (Abate)	< 0.500	0.500	µg/L							
Terbufos	< 0.100	0.100	µg/L							
Triallate	< 0.100	0.100	µg/L							
Trifluralin	< 0.200	0.200	µg/L							
Surrogate: Tributyl Phosphate	*0.780*		*µg/L*	0.998		*78*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.619*		*µg/L*	1.00		*62*	*50-140*			
LCS (B2J2906-BS1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	0.768	0.100	µg/L	1.01		76	50-140			
Aldrin	0.725	0.006	µg/L	1.00		73	50-140			
Atrazine	0.612	0.100	µg/L	1.01		61	50-140			
Atrazine-desethyl	0.193	0.100	µg/L	1.03		19	50-140			SPK
Azinphos-methyl	0.936	0.200	µg/L	0.981		95	50-140			
alpha-BHC	0.683	0.010	µg/L	1.01		68	50-140			
beta-BHC	0.733	0.050	µg/L	1.01		73	50-140			
delta-BHC	0.719	0.050	µg/L	1.00		72	50-140			
gamma-BHC (Lindane)	0.681	0.050	µg/L	1.00		68	50-140			
Bromacil	0.761	0.100	µg/L	1.01		75	50-140			
Bromoxynil	0.645	0.200	µg/L	0.978		66	50-140			
Butachlor	0.841	0.020	µg/L	1.01		83	50-140			
Captan	0.787	0.100	µg/L	0.996		79	50-140			
Chlordane (cis + trans)	1.46	0.050	µg/L	2.01		73	50-140			
Chlorothalonil	0.657	0.050	µg/L	1.01		65	50-140			
Chlorpyrifos	0.767	0.010	µg/L	1.00		77	50-140			
Cyanazine	0.742	0.100	µg/L	1.01		73	50-140			
DDT, Total	4.63	0.010	µg/L	5.97		77	50-140			
Deltamethrin	8.60	0.100	µg/L	10.1		85	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2518
PROJECT 690667 **REPORTED** 2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
LCS (B2J2906-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Diazinon	0.738	0.020	µg/L	1.00		74	50-140			
Dichlorvos	0.741	0.100	µg/L	1.09		68	50-140			
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140			
Dieldrin	0.768	0.010	µg/L	1.00		77	50-140			
Dimethoate	0.619	0.200	µg/L	0.990		63	50-140			
Disulfoton	0.633	0.100	µg/L	1.02		62	50-140			
Diuron	0.916	0.200	µg/L	1.06		86	50-140			
Endosulfan I + II	1.55	0.010	µg/L	2.01		77	50-140			
Endosulfan sulfate	0.774	0.050	µg/L	1.01		77	50-140			
Endrin	0.767	0.020	µg/L	1.01		76	50-140			
Endrin aldehyde	0.843	0.020	µg/L	1.00		84	50-140			
Endrin ketone	0.738	0.020	µg/L	1.01		73	50-140			
Fenchlorphos (Ronnel)	0.659	0.100	µg/L	1.03		64	50-140			
Heptachlor	0.687	0.010	µg/L	1.01		68	50-140			
Heptachlor epoxide	0.715	0.010	µg/L	1.01		71	50-140			
Linuron	0.817	0.050	µg/L	1.07		76	50-140			
Malathion	0.885	0.100	µg/L	1.00		88	50-140			
Methoxychlor	0.808	0.050	µg/L	1.01		80	50-140			
Methyl parathion	0.738	0.100	µg/L	0.997		74	50-140			
Metolachlor	0.809	0.100	µg/L	1.00		81	50-140			
Metribuzin	0.691	0.200	µg/L	1.00		69	50-140			
Parathion	0.853	0.100	µg/L	0.999		85	50-140			
Pentachloronitrobenzene	0.658	0.100	µg/L	0.989		66	50-140			
Permethrin	1.06	0.010	µg/L	1.04		102	50-140			
Phorate	0.666	0.100	µg/L	1.00		67	50-140			
Prometon	< 0.300	0.300	µg/L	1.00		23	50-140			SPK
Prometryne	0.504	0.100	µg/L	1.00		50	50-140			
Simazine	0.511	0.200	µg/L	1.01		51	50-140			
Sulfotep	0.586	0.100	µg/L	1.04		56	50-140			
Tebuthiuron	0.520	0.200	µg/L	1.01		52	50-140			
Temephos (Abate)	8.39	0.500	µg/L	10.5		80	50-140			
Terbufos	0.696	0.100	µg/L	0.994		70	50-140			
Triallate	0.684	0.100	µg/L	1.01		68	50-140			
Trifluralin	0.721	0.200	µg/L	1.00		72	50-140			
Surrogate: Tributyl Phosphate	*0.768*		*µg/L*	0.998		*77*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.638*		*µg/L*	1.00		*64*	*50-140*			
LCS Dup (B2J2906-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	0.750	0.100	µg/L	1.01		74	50-140	2	30	
Aldrin	0.673	0.006	µg/L	1.00		67	50-140	8	30	
Atrazine	0.710	0.100	µg/L	1.01		70	50-140	15	30	
Atrazine-desethyl	0.461	0.100	µg/L	1.03		45	50-140	82	30	SPK
Azinphos-methyl	0.933	0.200	µg/L	0.981		95	50-140	< 1	30	
alpha-BHC	0.669	0.010	µg/L	1.01		66	50-140	2	30	
beta-BHC	0.711	0.050	µg/L	1.01		70	50-140	3	30	
delta-BHC	0.691	0.050	µg/L	1.00		69	50-140	4	30	
gamma-BHC (Lindane)	0.672	0.050	µg/L	1.00		67	50-140	1	30	
Bromacil	0.820	0.100	µg/L	1.01		81	50-140	7	30	
Bromoxynil	0.686	0.200	µg/L	0.978		70	50-140	6	30	
Butachlor	0.860	0.020	µg/L	1.01		85	50-140	2	30	
Captan	0.766	0.100	µg/L	0.996		77	50-140	3	30	
Chlordane (cis + trans)	1.41	0.050	µg/L	2.01		70	50-140	4	30	
Chlorothalonil	0.690	0.050	µg/L	1.01		68	50-140	5	30	
Chlorpyrifos	0.726	0.010	µg/L	1.00		73	50-140	5	30	
Cyanazine	0.783	0.100	µg/L	1.01		78	50-140	5	30	
DDT, Total	4.35	0.010	µg/L	5.97		73	50-140	6	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
LCS Dup (B2J2906-BSD1), Continued				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Deltamethrin	7.83	0.100	µg/L	10.1		78	50-140	9	30	
Diazinon	0.776	0.020	µg/L	1.00		78	50-140	5	30	
Dichlorvos	0.753	0.100	µg/L	1.09		69	50-140	2	30	
Diclofop-methyl	0.795	0.100	µg/L	1.02		78	50-140	4	30	
Dieldrin	0.759	0.010	µg/L	1.00		76	50-140	1	30	
Dimethoate	0.685	0.200	µg/L	0.990		69	50-140	10	30	
Disulfoton	0.628	0.100	µg/L	1.02		62	50-140	< 1	30	
Diuron	0.850	0.200	µg/L	1.06		80	50-140	7	30	
Endosulfan I + II	1.50	0.010	µg/L	2.01		75	50-140	3	30	
Endosulfan sulfate	0.747	0.050	µg/L	1.01		74	50-140	4	30	
Endrin	0.765	0.020	µg/L	1.01		76	50-140	< 1	30	
Endrin aldehyde	0.816	0.020	µg/L	1.00		82	50-140	3	30	
Endrin ketone	0.722	0.020	µg/L	1.01		71	50-140	2	30	
Fenchlorphos (Ronnel)	0.679	0.100	µg/L	1.03		66	50-140	3	30	
Heptachlor	0.662	0.010	µg/L	1.01		66	50-140	4	30	
Heptachlor epoxide	0.721	0.010	µg/L	1.01		71	50-140	< 1	30	
Linuron	1.14	0.050	µg/L	1.07		107	50-140	33	30	RPD
Malathion	0.842	0.100	µg/L	1.00		84	50-140	5	30	
Methoxychlor	0.798	0.050	µg/L	1.01		79	50-140	1	30	
Methyl parathion	0.745	0.100	µg/L	0.997		75	50-140	1	30	
Metolachlor	0.800	0.100	µg/L	1.00		80	50-140	1	30	
Metribuzin	0.779	0.200	µg/L	1.00		78	50-140	12	30	
Parathion	0.850	0.100	µg/L	0.999		85	50-140	< 1	30	
Pentachloronitrobenzene	0.647	0.100	µg/L	0.989		65	50-140	2	30	
Permethrin	0.957	0.010	µg/L	1.04		92	50-140	10	30	
Phorate	0.670	0.100	µg/L	1.00		67	50-140	< 1	30	
Prometon	0.391	0.300	µg/L	1.00		39	50-140	52	30	SPK
Prometryne	0.605	0.100	µg/L	1.00		60	50-140	18	30	
Simazine	0.649	0.200	µg/L	1.01		64	50-140	24	30	
Sulfotep	0.584	0.100	µg/L	1.04		56	50-140	< 1	30	
Tebuthiuron	0.888	0.200	µg/L	1.01		88	50-140	52	30	RPD
Temephos (Abate)	7.76	0.500	µg/L	10.5		74	50-140	8	30	
Terbufos	0.704	0.100	µg/L	0.994		71	50-140	1	30	
Triallate	0.670	0.100	µg/L	1.01		66	50-140	2	30	
Trifluralin	0.741	0.200	µg/L	1.00		74	50-140	3	30	
Surrogate: Tributyl Phosphate	*0.790*		*µg/L*	0.998		*79*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.635*		*µg/L*	1.00		*64*	*50-140*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J2426										
Blank (B2J2426-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-22						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2518
PROJECT 690667 **REPORTED** 2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J2426, Continued										
Blank (B2J2426-BLK1), Continued				Prepared: 2022-10-21, Analyzed: 2022-10-22						
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*13.8*		*µg/L*	22.7		*61*	*50-140*			
Surrogate: Naphthalene-d8	*16.8*		*µg/L*	21.4		*79*	*50-140*			
Surrogate: Perylene-d12	*22.9*		*µg/L*	22.2		*103*	*50-140*			
LCS (B2J2426-BS1)				Prepared: 2022-10-21, Analyzed: 2022-10-22						
Acenaphthene	17.9	0.050	µg/L	22.1		81	50-140			
Acenaphthylene	17.0	0.200	µg/L	21.9		78	50-140			
Acridine	17.4	0.050	µg/L	22.0		79	50-140			
Anthracene	18.8	0.010	µg/L	22.1		85	50-140			
Benz(a)anthracene	24.1	0.010	µg/L	22.1		109	50-140			
Benzo(a)pyrene	22.9	0.010	µg/L	21.9		104	50-140			
Benzo(b+j)fluoranthene	50.1	0.050	µg/L	43.8		115	50-140			
Benzo(g,h,i)perylene	22.3	0.050	µg/L	21.9		102	50-140			
Benzo(k)fluoranthene	23.1	0.050	µg/L	22.0		105	50-140			
2-Chloronaphthalene	18.8	0.100	µg/L	21.9		86	50-140			
Chrysene	24.5	0.050	µg/L	21.8		112	50-140			
Dibenz(a,h)anthracene	21.2	0.010	µg/L	22.2		96	50-140			
Fluoranthene	15.9	0.030	µg/L	22.2		72	50-140			
Fluorene	17.3	0.050	µg/L	22.7		77	50-140			
Indeno(1,2,3-cd)pyrene	22.6	0.050	µg/L	21.9		103	50-140			
1-Methylnaphthalene	15.6	0.100	µg/L	22.0		71	50-140			
2-Methylnaphthalene	15.9	0.100	µg/L	22.0		72	50-140			
Naphthalene	15.6	0.200	µg/L	22.0		71	50-140			
Phenanthrene	18.8	0.100	µg/L	21.9		86	50-140			
Pyrene	15.9	0.020	µg/L	22.2		72	50-140			
Quinoline	23.6	0.050	µg/L	22.2		106	50-140			
Surrogate: Acridine-d9	*15.0*		*µg/L*	22.7		*66*	*50-140*			
Surrogate: Naphthalene-d8	*17.5*		*µg/L*	21.4		*82*	*50-140*			
Surrogate: Perylene-d12	*23.5*		*µg/L*	22.2		*106*	*50-140*			
LCS Dup (B2J2426-BSD1)				Prepared: 2022-10-21, Analyzed: 2022-10-22						
Acenaphthene	20.1	0.050	µg/L	22.1		91	50-140	12	30	
Acenaphthylene	19.3	0.200	µg/L	21.9		88	50-140	13	30	
Acridine	19.4	0.050	µg/L	22.0		88	50-140	11	30	
Anthracene	21.0	0.010	µg/L	22.1		95	50-140	11	30	
Benz(a)anthracene	26.7	0.010	µg/L	22.1		121	50-140	10	30	
Benzo(a)pyrene	25.8	0.010	µg/L	21.9		117	50-140	12	30	
Benzo(b+j)fluoranthene	56.3	0.050	µg/L	43.8		129	50-140	12	30	
Benzo(g,h,i)perylene	24.9	0.050	µg/L	21.9		114	50-140	11	30	
Benzo(k)fluoranthene	26.0	0.050	µg/L	22.0		118	50-140	12	30	
2-Chloronaphthalene	21.2	0.100	µg/L	21.9		97	50-140	12	30	
Chrysene	27.2	0.050	µg/L	21.8		125	50-140	10	30	
Dibenz(a,h)anthracene	23.8	0.010	µg/L	22.2		107	50-140	11	30	
Fluoranthene	17.7	0.030	µg/L	22.2		80	50-140	11	30	
Fluorene	19.5	0.050	µg/L	22.7		86	50-140	11	30	
Indeno(1,2,3-cd)pyrene	25.3	0.050	µg/L	21.9		115	50-140	11	30	
1-Methylnaphthalene	17.6	0.100	µg/L	22.0		80	50-140	12	30	
2-Methylnaphthalene	18.0	0.100	µg/L	22.0		82	50-140	12	30	
Naphthalene	17.6	0.200	µg/L	22.0		80	50-140	12	30	
Phenanthrene	21.1	0.100	µg/L	21.9		96	50-140	11	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2518
PROJECT 690667 **REPORTED** 2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J2426, Continued										
LCS Dup (B2J2426-BSD1), Continued				Prepared: 2022-10-21, Analyzed: 2022-10-22						
Pyrene	17.8	0.020	µg/L	22.2		80	50-140	11	30	
Quinoline	26.4	0.050	µg/L	22.2		119	50-140	11	30	
Surrogate: Acridine-d9	*15.0*		*µg/L*	22.7		*66*	*50-140*			
Surrogate: Naphthalene-d8	*17.8*		*µg/L*	21.4		*83*	*50-140*			
Surrogate: Perylene-d12	*23.9*		*µg/L*	22.2		*107*	*50-140*			
Total Metals, Batch B2J2658										
Blank (B2J2658-BLK1)				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J2658-BS1)				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Aluminum, total	4.08	0.0050	mg/L	4.00		102	80-120			
Antimony, total	0.0402	0.00020	mg/L	0.0400		101	80-120			
Arsenic, total	0.0420	0.00050	mg/L	0.0400		105	80-120			
Barium, total	0.0387	0.0050	mg/L	0.0400		97	80-120			
Beryllium, total	0.0425	0.00010	mg/L	0.0400		106	80-120			
Bismuth, total	0.0385	0.00010	mg/L	0.0400		96	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		112	80-120			
Cadmium, total	0.0398	0.000010	mg/L	0.0400		99	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J2658, Continued										
LCS (B2J2658-BS1), Continued				Prepared: 2022-10-23, Analyzed: 2022-10-24						
Calcium, total	4.26	0.20	mg/L	4.00		107	80-120			
Chromium, total	0.0417	0.00050	mg/L	0.0400		104	80-120			
Cobalt, total	0.0405	0.00010	mg/L	0.0400		101	80-120			
Copper, total	0.0413	0.00040	mg/L	0.0400		103	80-120			
Iron, total	4.12	0.010	mg/L	4.00		103	80-120			
Lead, total	0.0395	0.00020	mg/L	0.0400		99	80-120			
Lithium, total	0.0413	0.00010	mg/L	0.0400		103	80-120			
Magnesium, total	4.17	0.010	mg/L	4.00		104	80-120			
Manganese, total	0.0409	0.00020	mg/L	0.0400		102	80-120			
Molybdenum, total	0.0399	0.00010	mg/L	0.0400		100	80-120			
Nickel, total	0.0414	0.00040	mg/L	0.0400		103	80-120			
Phosphorus, total	4.29	0.050	mg/L	4.00		107	80-120			
Potassium, total	4.09	0.10	mg/L	4.00		102	80-120			
Selenium, total	0.0399	0.00050	mg/L	0.0400		100	80-120			
Silicon, total	4.3	1.0	mg/L	4.00		107	80-120			
Silver, total	0.0416	0.000050	mg/L	0.0400		104	80-120			
Sodium, total	4.13	0.10	mg/L	4.00		103	80-120			
Strontium, total	0.0417	0.0010	mg/L	0.0400		104	80-120			
Sulfur, total	41.0	3.0	mg/L	40.0		103	80-120			
Tellurium, total	0.0379	0.00050	mg/L	0.0400		95	80-120			
Thallium, total	0.0389	0.000020	mg/L	0.0400		97	80-120			
Thorium, total	0.0394	0.00010	mg/L	0.0400		98	80-120			
Tin, total	0.0403	0.00020	mg/L	0.0400		101	80-120			
Titanium, total	0.0423	0.0050	mg/L	0.0400		106	80-120			
Tungsten, total	0.0391	0.0002	mg/L	0.0400		98	80-120			
Uranium, total	0.0394	0.000020	mg/L	0.0400		98	80-120			
Vanadium, total	0.0421	0.0050	mg/L	0.0400		105	80-120			
Zinc, total	0.0414	0.0040	mg/L	0.0400		103	80-120			
Zirconium, total	0.0406	0.00010	mg/L	0.0400		102	80-120			
Total Metals, Batch B2J2704										
Blank (B2J2704-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, total	< 0.000010	0.000010	mg/L							
Blank (B2J2704-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, total	< 0.000010	0.000010	mg/L							
Blank (B2J2704-BLK3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, total	< 0.000010	0.000010	mg/L							
LCS (B2J2704-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, total	0.000500	0.000010	mg/L	0.000500		100	80-120			
LCS (B2J2704-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, total	0.000502	0.000010	mg/L	0.000500		100	80-120			
LCS (B2J2704-BS3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Mercury, total	0.000539	0.000010	mg/L	0.000500		108	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

QC Qualifiers:

BLK	Analyte concentration in the Method Blank is above the Reporting Limit (RL).
MS2	The native sample concentration is greater than the spike concentration hence the matrix spike limits do not apply.
RPD	Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
RQ1	Reporting limits have been raised due to QC bias.
SPK	The recovery of this analyte was outside of established control limits.
SPK1	The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2518
PROJECT	690667	**REPORTED**	2023-02-16 16:37

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2518-01	2022-12-14	SampleRegID	N/A	N/A
22J2518-02	2022-12-14	SampleRegID	N/A	N/A
22J2518-03	2022-12-14	SampleRegID	N/A	N/A
22J2518-01	2023-02-16	RL Revised	Phenols, Chlorinated	2,3,4,5 & 2,3,5,6-Tetrachlorophenol, 3,4,5-Trichlorophenol, Pentachlorophenol
22J2518-02	2023-02-16	RL Revised	Phenols, Chlorinated	2,3,4,5 & 2,3,5,6-Tetrachlorophenol, 3,4,5-Trichlorophenol, Pentachlorophenol
22J2518-03	2023-02-16	RL Revised	Phenols, Chlorinated	2,3,4,5 & 2,3,5,6-Tetrachlorophenol, 3,4,5-Trichlorophenol, Pentachlorophenol

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2565
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-19 10:07 / 7.1°C
PROJECT	690667	**REPORTED**	2022-11-29 14:17
PROJECT INFO	Flood Disaster Recovery, Merritt	**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: YES

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-1 (22J2565-01) | Matrix: Soil | Sampled: 2022-10-18 09:50					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-24	
EPHs19-32	< 50	50	mg/kg dry	2022-10-24	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*76*	*60-140*	%	*2022-10-24*	
Chlorinated Phenols					
2-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3 & 4-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
4-Chloro-3-Methylphenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,4 & 2,5-Dichlorophenol	< 0.030	0.030	mg/kg dry	2022-10-25	
2,6-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3,4-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3,5-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,4-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,4,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,4,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
Pentachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
Surrogate: 2,4-Dibromophenol	*90*	*50-140*	%	*2022-10-25*	
Surrogate: 2,4,6-Tribromophenol	*89*	*50-140*	%	*2022-10-25*	
General Parameters					
Carbon, Total Organic	< 0.050	0.050	% dry	2022-10-21	
Moisture	**21.3**	1.0	% wet	2022-10-22	
pH (1:2 H2O Solution)	**7.63**	0.10	pH units	2022-10-26	
Microbiological Parameters					
Coliforms, Total	**29**	3.0	MPN/g dry	2022-10-20	HT1
Coliforms, Fecal	< 3.8	3.0	MPN/g dry	2022-10-20	HT1
E. coli	< 3.8	3.0	MPN/g dry	2022-10-20	HT1
Particle Size Distribution					
> 75 µm	**99.9**	0.1	% dry	2022-10-25	
Classification	**Coarse**		% dry	2022-10-25	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-1 (22J2565-01) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-1 (22J2565-01) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*102*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*92*	*50-140*	%	*2022-11-02*	
Polychlorinated Biphenyl Aroclors					
PCB-1016	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1221	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1232	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1242	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1248	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1254	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1260	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1262	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1268	< 0.040	0.040	mg/kg dry	2022-10-26	
Total PCBs	< 0.120	0.040	mg/kg dry	2022-10-26	
Surrogate: Decachlorobiphenyl	*144*	*50-140*	%	*2022-10-26*	S09
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-24	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-24	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-24	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-24	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-1 (22J2565-01) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Surrogate: Acenaphthene-d10	*95*	*50-140*	%	*2022-10-24*	
Surrogate: Chrysene-d12	*102*	*50-140*	%	*2022-10-24*	
Surrogate: Naphthalene-d8	*102*	*50-140*	%	*2022-10-24*	
Surrogate: Perylene-d12	*94*	*50-140*	%	*2022-10-24*	
Surrogate: Phenanthrene-d10	*96*	*55-140*	%	*2022-10-24*	
Strong Acid Leachable Metals					
Aluminum	**7690**	40	mg/kg dry	2022-10-26	
Antimony	**0.14**	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.62**	0.30	mg/kg dry	2022-10-26	
Barium	**90.0**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.19**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.089**	0.040	mg/kg dry	2022-10-26	
Chromium	**9.0**	1.0	mg/kg dry	2022-10-26	
Cobalt	**6.24**	0.10	mg/kg dry	2022-10-26	
Copper	**15.8**	0.40	mg/kg dry	2022-10-26	
Iron	**17200**	20	mg/kg dry	2022-10-26	
Lead	**2.52**	0.20	mg/kg dry	2022-10-26	
Lithium	**5.16**	0.10	mg/kg dry	2022-10-26	
Manganese	**303**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.35**	0.10	mg/kg dry	2022-10-26	
Nickel	**8.30**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**56.5**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.22**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.261**	0.050	mg/kg dry	2022-10-26	
Vanadium	**39.0**	1.0	mg/kg dry	2022-10-26	
Zinc	**33.4**	2.0	mg/kg dry	2022-10-26	
SED22-HH2-2 (22J2565-02) | Matrix: Soil | Sampled: 2022-10-18 12:15					
BCMOE Aggregate Hydrocarbons					
VHs (6-10)	< 20	20	mg/kg dry	2022-10-25	
VPHs	< 20	20	mg/kg dry	N/A	
EPHs10-19	< 50	50	mg/kg dry	2022-10-24	
EPHs19-32	< 50	50	mg/kg dry	2022-10-24	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-2 (22J2565-02) | Matrix: Soil | Sampled: 2022-10-18 12:15, Continued					
BCMOE Aggregate Hydrocarbons, Continued					
Surrogate: 2-Methylnonane (EPH/F2-4)	*90*	*60-140*	%	*2022-10-24*	
General Parameters					
Carbon, Total Organic	< 0.050	0.050	% dry	2022-10-21	
Moisture	**7.0**	1.0	% wet	2022-10-22	
pH (1:2 H2O Solution)	**7.80**	0.10	pH units	2022-10-26	
Microbiological Parameters					
Coliforms, Total	**16**	3.0	MPN/g dry	2022-10-20	HT1
Coliforms, Fecal	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
E. coli	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
Particle Size Distribution					
> 75 µm	**99.0**	0.1	% dry	2022-10-25	
Classification	**Coarse**		% dry	2022-10-25	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-24	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-24	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-24	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-24	
Surrogate: Acenaphthene-d10	*103*	*50-140*	%	*2022-10-24*	
Surrogate: Chrysene-d12	*112*	*50-140*	%	*2022-10-24*	
Surrogate: Naphthalene-d8	*112*	*50-140*	%	*2022-10-24*	
Surrogate: Perylene-d12	*103*	*50-140*	%	*2022-10-24*	
Surrogate: Phenanthrene-d10	*104*	*55-140*	%	*2022-10-24*	
Strong Acid Leachable Metals					

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-2 (22J2565-02) | Matrix: Soil | Sampled: 2022-10-18 12:15, Continued					
Strong Acid Leachable Metals, Continued					
Aluminum	**6880**	40	mg/kg dry	2022-10-26	
Antimony	**0.11**	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.66**	0.30	mg/kg dry	2022-10-26	
Barium	**78.4**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.17**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.045**	0.040	mg/kg dry	2022-10-26	
Chromium	**11.2**	1.0	mg/kg dry	2022-10-26	
Cobalt	**5.67**	0.10	mg/kg dry	2022-10-26	
Copper	**12.7**	0.40	mg/kg dry	2022-10-26	
Iron	**17100**	20	mg/kg dry	2022-10-26	
Lead	**1.92**	0.20	mg/kg dry	2022-10-26	
Lithium	**5.01**	0.10	mg/kg dry	2022-10-26	
Manganese	**334**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.27**	0.10	mg/kg dry	2022-10-26	
Nickel	**8.06**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**48.4**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.24**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.216**	0.050	mg/kg dry	2022-10-26	
Vanadium	**40.6**	1.0	mg/kg dry	2022-10-26	
Zinc	**33.5**	2.0	mg/kg dry	2022-10-26	
Volatile Organic Compounds (VOC)					
Benzene	< 0.030	0.030	mg/kg dry	2022-10-25	
Bromodichloromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
Bromoform	< 0.100	0.100	mg/kg dry	2022-10-25	
Carbon tetrachloride	< 0.050	0.050	mg/kg dry	2022-10-25	
Chlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
Chloroform	< 0.050	0.050	mg/kg dry	2022-10-25	
Dibromochloromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
1,2-Dibromoethane	< 0.100	0.100	mg/kg dry	2022-10-25	
Dibromomethane	< 0.100	0.100	mg/kg dry	2022-10-25	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,2-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-2 (22J2565-02) | Matrix: Soil | Sampled: 2022-10-18 12:15, Continued					
Volatile Organic Compounds (VOC), Continued					
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
Dichloromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
1,2-Dichloropropane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg dry	2022-10-25	
Ethylbenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
Methyl tert-butyl ether	< 0.040	0.040	mg/kg dry	2022-10-25	
Styrene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
Tetrachloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
Toluene	< 0.200	0.200	mg/kg dry	2022-10-25	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
Trichloroethylene	< 0.040	0.040	mg/kg dry	2022-10-25	
Trichlorofluoromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
Vinyl chloride	< 0.100	0.100	mg/kg dry	2022-10-25	
Xylenes (total)	< 0.100	0.100	mg/kg dry	2022-10-25	
Surrogate: Toluene-d8	*98*	*60-140*	%	*2022-10-25*	
Surrogate: 4-Bromofluorobenzene	*76*	*60-140*	%	*2022-10-25*	
Surrogate: 1,4-Dichlorobenzene-d4	*84*	*60-140*	%	*2022-10-25*	
SED22-EH2-1 (22J2565-03) | Matrix: Soil | Sampled: 2022-10-18 11:00					
General Parameters					
Carbon, Total Organic	**0.060**	0.050	% dry	2022-10-21	
pH (1:2 H2O Solution)	**8.06**	0.10	pH units	2022-10-26	
Particle Size Distribution					
> 75 µm	**93.6**	0.1	% dry	2022-10-25	
Classification	**Coarse**		% dry	2022-10-25	
Strong Acid Leachable Metals					
Aluminum	**8840**	40	mg/kg dry	2022-10-26	
Antimony	**0.14**	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.32**	0.30	mg/kg dry	2022-10-26	
Barium	**98.6**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.20**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.052**	0.040	mg/kg dry	2022-10-26	
Chromium	**11.2**	1.0	mg/kg dry	2022-10-26	
Cobalt	**6.59**	0.10	mg/kg dry	2022-10-26	
Copper	**14.7**	0.40	mg/kg dry	2022-10-26	
Iron	**18700**	20	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-1 (22J2565-03) | Matrix: Soil | Sampled: 2022-10-18 11:00, Continued					
Strong Acid Leachable Metals, Continued					
Lead	**2.25**	0.20	mg/kg dry	2022-10-26	
Lithium	**5.80**	0.10	mg/kg dry	2022-10-26	
Manganese	**377**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.30**	0.10	mg/kg dry	2022-10-26	
Nickel	**9.12**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**63.5**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.25**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.299**	0.050	mg/kg dry	2022-10-26	
Vanadium	**44.8**	1.0	mg/kg dry	2022-10-26	
Zinc	**37.2**	2.0	mg/kg dry	2022-10-26	
SED22-B (22J2565-04) | Matrix: Soil | Sampled: 2022-10-18 09:50					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-24	
EPHs19-32	< 50	50	mg/kg dry	2022-10-24	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*77*	*60-140*	%	*2022-10-24*	
Chlorinated Phenols					
2-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3 & 4-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
4-Chloro-3-Methylphenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,4 & 2,5-Dichlorophenol	< 0.030	0.030	mg/kg dry	2022-10-25	
2,6-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3,4-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3,5-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,4-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,4,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
3,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
2,3,4,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	
Pentachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-25	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-B (22J2565-04) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Chlorinated Phenols, Continued					
Surrogate: 2,4-Dibromophenol	*88*	*50-140*	%	*2022-10-25*	
Surrogate: 2,4,6-Tribromophenol	*93*	*50-140*	%	*2022-10-25*	
General Parameters					
Carbon, Total Organic	< 0.050	0.050	% dry	2022-10-24	
Moisture	**19.2**	1.0	% wet	2022-10-22	
pH (1:2 H2O Solution)	**7.87**	0.10	pH units	2022-10-26	
Microbiological Parameters					
Coliforms, Total	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
Coliforms, Fecal	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
E. coli	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
Particle Size Distribution					
> 75 µm	**98.6**	0.1	% dry	2022-10-25	
Classification	**Coarse**		% dry	2022-10-25	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-01	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-01	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-01	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-01	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-01	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-01	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-01	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-01	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-01	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-01	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-01	

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Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-B (22J2565-04) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-01	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-01	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-01	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-01	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-01	
Surrogate: Tributyl Phosphate	*98*	*50-140*	%	*2022-11-01*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*86*	*50-140*	%	*2022-11-01*	
Polychlorinated Biphenyl Aroclors					
PCB-1016	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1221	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1232	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1242	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1248	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1254	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1260	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1262	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1268	< 0.040	0.040	mg/kg dry	2022-10-26	
Total PCBs	< 0.120	0.040	mg/kg dry	2022-10-26	
Surrogate: Decachlorobiphenyl	*108*	*50-140*	%	*2022-10-26*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-24	

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Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-B (22J2565-04) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-24	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-24	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-24	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-24	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-24	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-24	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-24	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-24	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-24	
Surrogate: Acenaphthene-d10	*90*	*50-140*	%	*2022-10-24*	
Surrogate: Chrysene-d12	*99*	*50-140*	%	*2022-10-24*	
Surrogate: Naphthalene-d8	*96*	*50-140*	%	*2022-10-24*	
Surrogate: Perylene-d12	*89*	*50-140*	%	*2022-10-24*	
Surrogate: Phenanthrene-d10	*92*	*55-140*	%	*2022-10-24*	
Strong Acid Leachable Metals					
Aluminum	**7200**	40	mg/kg dry	2022-10-26	
Antimony	**0.11**	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.19**	0.30	mg/kg dry	2022-10-26	
Barium	**66.7**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.17**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	< 0.040	0.040	mg/kg dry	2022-10-26	
Chromium	**8.2**	1.0	mg/kg dry	2022-10-26	
Cobalt	**5.57**	0.10	mg/kg dry	2022-10-26	
Copper	**11.7**	0.40	mg/kg dry	2022-10-26	
Iron	**16600**	20	mg/kg dry	2022-10-26	
Lead	**1.91**	0.20	mg/kg dry	2022-10-26	
Lithium	**5.23**	0.10	mg/kg dry	2022-10-26	
Manganese	**305**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.24**	0.10	mg/kg dry	2022-10-26	

TEST RESULTS

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Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-B (22J2565-04) | Matrix: Soil | Sampled: 2022-10-18 09:50, Continued					
Strong Acid Leachable Metals, Continued					
Nickel	**6.94**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**34.7**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.22**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.251**	0.050	mg/kg dry	2022-10-26	
Vanadium	**37.0**	1.0	mg/kg dry	2022-10-26	
Zinc	**33.3**	2.0	mg/kg dry	2022-10-26	

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
S09	The surrogate recovery for this sample is outside of established control limits Suspect syringe error, data not affected

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
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Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Fecal in Soil	TMECC 07.01 B	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Total in Soil	TMECC 07.01 A	Most Probable Number / Most Probable Number		Kelowna
E. coli in Soil	TMECC 07.01 C	Most Probable Number / Most Probable Number		Kelowna
EPH in Soil	EPA 3570* / BCMOE EPHs*	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-FID)	✓	Richmond
HEPHs in Soil	BCMOE LEPH/HEPH	Calculation		N/A
LEPHs in Soil	BCMOE LEPH/HEPH	Calculation		N/A
Moisture in Soil	ASTM D2974-87*	Gravimetry (Dried at 105C)		N/A
Particle Size in Soil	Carter 55.4*	Mechanical Sieving	✓	Richmond
Pesticides in Soil	EPA 3570* / EPA 8270D*	Shaker Extraction (DCM) / GC-MSD (SIM)	✓	Richmond
pH in Soil	Carter 16.2 / SM 4500-H+ B (2017)	1:2 Soil/Water Slurry / Electrometry	✓	Richmond
Phenols, Chlorinated in Soil	EPA 3570* / EPA 8270D	Shaker Extraction (DCM) / GC-MSD (SIM)	✓	Richmond
Polychlorinated Biphenyl Aroclors in Soil	EPA 3570* / EPA 8082A	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-ECD)	✓	Richmond
Polycyclic Aromatic Hydrocarbons in Soil	EPA 3570* / EPA 8270D	Shaker Extraction (Hexane-Acetone 1:1) / GC-MSD (SIM)	✓	Richmond
SALM in Soil	BCMOE SALM V.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
VH in Soil	EPA 5035A/5030B / BCMOE VHs	Methanol Extract, Purge&Trap / Purge&Trap or Headspace, Gas Chromatography (GC-FID)	✓	Richmond
Volatile Organic Compounds in Soil	EPA 5035A/5030B / EPA 8260D	Methanol Extract, Purge&Trap / GC-MSD (SIM)	✓	Richmond
VPHs in Soil	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)		N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
% dry	Percent (dry weight basis)
% wet	Percent (as received basis)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/kg dry	Milligrams per kilogram (dry weight basis)
MPN/g dry	Most Probable Number per gram (dry weight basis)
pH units	pH < 7 = acidic, ph > 7 = basic
ASTM	ASTM International Test Methods
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
Carter	Soil Sampling and Methods of Analysis, 2nd Edition (2007), Carter/Gregorich
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association
TMECC	Test Method for the Examination of Composting and Compost, US Composting Council

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
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General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J2707										
Blank (B2J2707-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*47.7*		*mg/kg wet*	72.0		*66*	*60-140*			
Blank (B2J2707-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*73.1*		*mg/kg wet*	85.8		*85*	*60-140*			
LCS (B2J2707-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
EPHs10-19	2400	50	mg/kg wet	2710		88	70-130			
EPHs19-32	3400	50	mg/kg wet	3890		89	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*57.5*		*mg/kg wet*	78.1		*74*	*60-140*			
LCS (B2J2707-BS4)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
EPHs10-19	2600	50	mg/kg wet	2660		98	70-130			
EPHs19-32	3800	50	mg/kg wet	3820		98	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*61.5*		*mg/kg wet*	76.7		*80*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B2J2790										
Blank (B2J2790-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
VHs (6-10)	< 20	20	mg/kg wet							
Blank (B2J2790-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
VHs (6-10)	< 20	20	mg/kg wet							
LCS (B2J2790-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
VHs (6-10)	240	20	mg/kg wet	341		71	70-130			
LCS (B2J2790-BS4)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
VHs (6-10)	240	20	mg/kg wet	341		70	70-130			
Chlorinated Phenols, Batch B2J2760										

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Chlorinated Phenols, Batch B2J2760, Continued										
Blank (B2J2760-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
2-Chlorophenol	< 0.020	0.020	mg/kg wet							
3 & 4-Chlorophenol	< 0.020	0.020	mg/kg wet							
4-Chloro-3-Methylphenol	< 0.020	0.020	mg/kg wet							
2,3-Dichlorophenol	< 0.020	0.020	mg/kg wet							
2,4 & 2,5-Dichlorophenol	< 0.030	0.030	mg/kg wet							
2,6-Dichlorophenol	< 0.020	0.020	mg/kg wet							
3,4-Dichlorophenol	< 0.020	0.020	mg/kg wet							
3,5-Dichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,4-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,5-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,6-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,4,5-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,4,6-Trichlorophenol	< 0.020	0.020	mg/kg wet							
3,4,5-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.020	0.020	mg/kg wet							
2,3,4,6-Tetrachlorophenol	< 0.020	0.020	mg/kg wet							
Pentachlorophenol	< 0.020	0.020	mg/kg wet							
Surrogate: 2,4-Dibromophenol	*0.706*		*mg/kg wet*	0.833		*85*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.732*		*mg/kg wet*	0.833		*88*	*50-140*			
LCS (B2J2760-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
2-Chlorophenol	0.612	0.020	mg/kg wet	0.838		73	50-140			
3 & 4-Chlorophenol	1.58	0.020	mg/kg wet	1.65		96	50-140			
4-Chloro-3-Methylphenol	0.794	0.020	mg/kg wet	0.850		93	50-140			
2,3-Dichlorophenol	0.596	0.020	mg/kg wet	0.842		71	50-140			
2,4 & 2,5-Dichlorophenol	1.48	0.030	mg/kg wet	1.69		88	50-140			
2,6-Dichlorophenol	0.694	0.020	mg/kg wet	0.833		83	50-140			
3,4-Dichlorophenol	0.753	0.020	mg/kg wet	0.838		90	50-140			
3,5-Dichlorophenol	0.813	0.020	mg/kg wet	0.846		96	50-140			
2,3,4-Trichlorophenol	0.688	0.020	mg/kg wet	0.838		82	50-140			
2,3,5-Trichlorophenol	0.779	0.020	mg/kg wet	0.838		93	50-140			
2,3,6-Trichlorophenol	0.745	0.020	mg/kg wet	0.838		89	50-140			
2,4,5-Trichlorophenol	0.692	0.020	mg/kg wet	0.838		83	50-140			
2,4,6-Trichlorophenol	0.779	0.020	mg/kg wet	0.829		94	50-140			
3,4,5-Trichlorophenol	0.765	0.020	mg/kg wet	0.833		92	50-140			
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	1.50	0.020	mg/kg wet	1.66		90	50-140			
2,3,4,6-Tetrachlorophenol	0.697	0.020	mg/kg wet	0.833		84	50-140			
Pentachlorophenol	0.872	0.020	mg/kg wet	0.829		105	50-140			
Surrogate: 2,4-Dibromophenol	*0.788*		*mg/kg wet*	0.833		*95*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.789*		*mg/kg wet*	0.833		*95*	*50-140*			
General Parameters, Batch B2J2390										
Blank (B2J2390-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	< 0.050	0.050	% dry							
Blank (B2J2390-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.050	0.050	% dry							
Duplicate (B2J2390-DUP1)			**Source: 22J2565-03**	Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	0.075	0.050	% dry		0.060				20	
Reference (B2J2390-SRM1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	0.772	0.050	% dry	0.645		120	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2565
REPORTED 2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2390, Continued										
Reference (B2J2390-SRM2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	0.688	0.050	% dry	0.645		107	80-120			
General Parameters, Batch B2J2966										
Reference (B2J2966-SRM1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
pH (1:2 H2O Solution)	7.11	0.10	pH units	6.91		103	95-105			
Microbiological Parameters, Batch B2J2391										
Blank (B2J2391-BLK1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Duplicate (B2J2391-DUP1)				**Source: 22J2565-01**	Prepared: 2022-10-20, Analyzed: 2022-10-20					
Coliforms, Total	12	3.0	MPN/g dry		29			87	148	
Coliforms, Fecal	< 3.8	3.0	MPN/g dry		< 3.8				147	
E. coli	< 3.8	3.0	MPN/g dry		< 3.8				145	
Particle Size Distribution, Batch B2J2622										
Duplicate (B2J2622-DUP1)				**Source: 22J2565-03**	Prepared: 2022-10-25, Analyzed: 2022-10-25					
> 75 µm	95.2	0.1	% dry		93.6			2	20	
Classification	Coarse		% dry		Coarse			2		
Pesticides, Herbicides, and Fungicides, Batch B2J2996										
Blank (B2J2996-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	< 0.0050	0.0050	mg/kg wet							
Aldrin	< 0.0050	0.0050	mg/kg wet							
Atrazine and metabolites	< 0.0050	0.0050	mg/kg wet							
Azinphos-methyl	< 0.0100	0.0100	mg/kg wet							
alpha-BHC	< 0.0050	0.0050	mg/kg wet							
beta-BHC	< 0.0050	0.0050	mg/kg wet							
delta-BHC	< 0.0050	0.0050	mg/kg wet							
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg wet							
Bromacil	< 0.0050	0.0050	mg/kg wet							
Bromoxynil	< 0.0200	0.0200	mg/kg wet							
Butachlor	< 0.0050	0.0050	mg/kg wet							
Captan	< 0.0200	0.0200	mg/kg wet							
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg wet							
Chlorothalonil	< 0.0050	0.0050	mg/kg wet							
Chlorpyrifos	< 0.0100	0.0100	mg/kg wet							
Cyanazine	< 0.0100	0.0100	mg/kg wet							
DDT, Total	< 0.0100	0.0100	mg/kg wet							
Deltamethrin	< 0.0500	0.0500	mg/kg wet							
Diazinon	< 0.0100	0.0100	mg/kg wet							
Dichlorvos	< 0.0100	0.0100	mg/kg wet							
Diclofop-methyl	< 0.0050	0.0050	mg/kg wet							
Dieldrin	< 0.0050	0.0050	mg/kg wet							
Dimethoate	< 0.0100	0.0100	mg/kg wet							
Disulfoton	< 0.0200	0.0200	mg/kg wet							
Diuron	< 0.0200	0.0200	mg/kg wet							
Endosulfan I + II	< 0.0050	0.0050	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2565
PROJECT 690667 **REPORTED** 2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
Blank (B2J2996-BLK1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Endosulfan sulfate	< 0.0050	0.0050	mg/kg wet							
Endrin	< 0.0050	0.0050	mg/kg wet							
Endrin aldehyde	< 0.0050	0.0050	mg/kg wet							
Endrin ketone	< 0.0050	0.0050	mg/kg wet							
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg wet							
Heptachlor	< 0.0050	0.0050	mg/kg wet							
Heptachlor epoxide	< 0.0050	0.0050	mg/kg wet							
Linuron	< 0.0400	0.0400	mg/kg wet							
Malathion	< 0.0100	0.0100	mg/kg wet							
Methoxychlor	< 0.0050	0.0050	mg/kg wet							
Methyl parathion	< 0.0100	0.0100	mg/kg wet							
Metolachlor	< 0.0100	0.0100	mg/kg wet							
Metribuzin	< 0.0100	0.0100	mg/kg wet							
Parathion	< 0.0100	0.0100	mg/kg wet							
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg wet							
Permethrin	< 0.0050	0.0050	mg/kg wet							
Phorate	< 0.0100	0.0100	mg/kg wet							
Prometon	< 0.0100	0.0100	mg/kg wet							
Prometryne	< 0.0050	0.0050	mg/kg wet							
Simazine	< 0.0100	0.0100	mg/kg wet							
Sulfotep	< 0.0100	0.0100	mg/kg wet							
Tebuthiuron	< 0.0200	0.0200	mg/kg wet							
Temephos (Abate)	< 0.0500	0.0500	mg/kg wet							
Terbufos	< 0.0100	0.0100	mg/kg wet							
Triallate	< 0.0050	0.0050	mg/kg wet							
Trifluralin	< 0.0100	0.0100	mg/kg wet							
Surrogate: Tributyl Phosphate	*0.0845*		*mg/kg wet*	0.0802		*105*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0715*		*mg/kg wet*	0.0804		*89*	*50-140*			
LCS (B2J2996-BS1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	0.0807	0.0050	mg/kg wet	0.0834		97	50-140			
Aldrin	0.0898	0.0050	mg/kg wet	0.0826		109	50-140			
Atrazine and metabolites	0.156	0.0050	mg/kg wet	0.167		93	50-140			
Azinphos-methyl	0.105	0.0100	mg/kg wet	0.0810		130	50-140			
alpha-BHC	0.0715	0.0050	mg/kg wet	0.0834		86	50-140			
beta-BHC	0.0752	0.0050	mg/kg wet	0.0834		90	50-140			
delta-BHC	0.0747	0.0050	mg/kg wet	0.0826		90	50-140			
gamma-BHC (Lindane)	0.0713	0.0050	mg/kg wet	0.0826		86	50-140			
Bromacil	0.0986	0.0050	mg/kg wet	0.0834		118	50-140			
Bromoxynil	0.0776	0.0200	mg/kg wet	0.0808		96	50-140			
Butachlor	0.0964	0.0050	mg/kg wet	0.0834		116	50-140			
Captan	0.0931	0.0200	mg/kg wet	0.0822		113	50-140			
Chlordane (cis + trans)	0.156	0.0050	mg/kg wet	0.166		94	50-140			
Chlorothalonil	0.0731	0.0050	mg/kg wet	0.0834		88	50-140			
Chlorpyrifos	0.0802	0.0100	mg/kg wet	0.0826		97	50-140			
Cyanazine	0.0899	0.0100	mg/kg wet	0.0834		108	50-140			
DDT, Total	0.529	0.0100	mg/kg wet	0.493		107	50-140			
Deltamethrin	0.950	0.0500	mg/kg wet	0.834		114	50-140			
Diazinon	0.0831	0.0100	mg/kg wet	0.0826		101	50-140			
Dichlorvos	0.0810	0.0100	mg/kg wet	0.0900		90	50-140			
Diclofop-methyl	0.0912	0.0050	mg/kg wet	0.0842		108	50-140			
Dieldrin	0.0848	0.0050	mg/kg wet	0.0826		103	50-140			
Dimethoate	0.0888	0.0100	mg/kg wet	0.0818		109	50-140			
Disulfoton	0.0710	0.0200	mg/kg wet	0.0842		84	50-140			
Diuron	0.0906	0.0200	mg/kg wet	0.0875		104	50-140			
Endosulfan I + II	0.170	0.0050	mg/kg wet	0.166		103	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2565
PROJECT 690667 **REPORTED** 2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
LCS (B2J2996-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Endosulfan sulfate	0.0855	0.0050	mg/kg wet	0.0834		103	50-140			
Endrin	0.0869	0.0050	mg/kg wet	0.0834		104	50-140			
Endrin aldehyde	0.0919	0.0050	mg/kg wet	0.0826		111	50-140			
Endrin ketone	0.0811	0.0050	mg/kg wet	0.0834		97	50-140			
Fenchlorphos (Ronnel)	0.0738	0.0100	mg/kg wet	0.0851		87	50-140			
Heptachlor	0.0753	0.0050	mg/kg wet	0.0834		90	50-140			
Heptachlor epoxide	0.0764	0.0050	mg/kg wet	0.0834		92	50-140			
Linuron	0.103	0.0400	mg/kg wet	0.0884		116	50-140			
Malathion	0.0898	0.0100	mg/kg wet	0.0826		109	50-140			
Methoxychlor	0.0926	0.0050	mg/kg wet	0.0834		111	50-140			
Methyl parathion	0.0853	0.0100	mg/kg wet	0.0823		104	50-140			
Metolachlor	0.0850	0.0100	mg/kg wet	0.0826		103	50-140			
Metribuzin	0.0877	0.0100	mg/kg wet	0.0826		106	50-140			
Parathion	0.0918	0.0100	mg/kg wet	0.0825		111	50-140			
Pentachloronitrobenzene	0.0709	0.0050	mg/kg wet	0.0817		87	50-140			
Permethrin	0.124	0.0050	mg/kg wet	0.0859		144	50-140			SPK
Phorate	0.0771	0.0100	mg/kg wet	0.0826		93	50-140			
Prometon	0.0698	0.0100	mg/kg wet	0.0826		84	50-140			
Prometryne	0.0883	0.0050	mg/kg wet	0.0826		107	50-140			
Simazine	0.0824	0.0100	mg/kg wet	0.0834		99	50-140			
Sulfotep	0.0637	0.0100	mg/kg wet	0.0859		74	50-140			
Tebuthiuron	0.0864	0.0200	mg/kg wet	0.0834		104	50-140			
Temephos (Abate)	1.03	0.0500	mg/kg wet	0.867		119	50-140			
Terbufos	0.0785	0.0100	mg/kg wet	0.0821		96	50-140			
Triallate	0.0739	0.0050	mg/kg wet	0.0834		89	50-140			
Trifluralin	0.0854	0.0100	mg/kg wet	0.0826		103	50-140			
Surrogate: Tributyl Phosphate	*0.0897*		*mg/kg wet*	0.0824		*109*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0761*		*mg/kg wet*	0.0826		*92*	*50-140*			
Polychlorinated Biphenyl Aroclors, Batch B2J2840										
Blank (B2J2840-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	< 0.040	0.040	mg/kg wet							
PCB-1221	< 0.040	0.040	mg/kg wet							
PCB-1232	< 0.040	0.040	mg/kg wet							
PCB-1242	< 0.040	0.040	mg/kg wet							
PCB-1248	< 0.040	0.040	mg/kg wet							
PCB-1254	< 0.040	0.040	mg/kg wet							
PCB-1260	< 0.040	0.040	mg/kg wet							
PCB-1262	< 0.040	0.040	mg/kg wet							
PCB-1268	< 0.040	0.040	mg/kg wet							
Total PCBs	< 0.120	0.120	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.334*		*mg/kg wet*	0.320		*104*	*50-140*			
LCS (B2J2840-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	1.40	0.040	mg/kg wet	1.45		97	60-130			
PCB-1260	1.06	0.040	mg/kg wet	1.45		73	60-130			
Surrogate: Decachlorobiphenyl	*0.313*		*mg/kg wet*	0.288		*109*	*50-140*			
LCS Dup (B2J2840-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	1.64	0.040	mg/kg wet	1.65		99	60-130	16	50	
PCB-1260	1.15	0.040	mg/kg wet	1.65		69	60-130	8	50	
Surrogate: Decachlorobiphenyl	*0.353*		*mg/kg wet*	0.329		*107*	*50-140*			
Matrix Spike (B2J2840-MS1)	**Source: 22J2565-01**			Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	2.15	0.051	mg/kg dry	2.10	< 0.040	102	60-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2565
PROJECT 690667 **REPORTED** 2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polychlorinated Biphenyl Aroclors, Batch B2J2840, Continued										
Matrix Spike (B2J2840-MS1), Continued	**Source: 22J2565-01**			Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1260	1.50	0.051	mg/kg dry	2.10	< 0.040	71	60-130			
Surrogate: Decachlorobiphenyl	*0.454*		*mg/kg dry*	0.419		*108*	*50-140*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J2707										
Blank (B2J2707-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Acenaphthene	< 0.050	0.050	mg/kg wet							
Acenaphthylene	< 0.050	0.050	mg/kg wet							
Anthracene	< 0.050	0.050	mg/kg wet							
Benz(a)anthracene	< 0.050	0.050	mg/kg wet							
Benzo(a)pyrene	< 0.050	0.050	mg/kg wet							
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg wet							
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg wet							
2-Chloronaphthalene	< 0.050	0.050	mg/kg wet							
Chrysene	< 0.050	0.050	mg/kg wet							
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg wet							
Fluoranthene	< 0.050	0.050	mg/kg wet							
Fluorene	< 0.050	0.050	mg/kg wet							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg wet							
1-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
2-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
Naphthalene	< 0.050	0.050	mg/kg wet							
Phenanthrene	< 0.050	0.050	mg/kg wet							
Pyrene	< 0.050	0.050	mg/kg wet							
Quinoline	< 0.050	0.050	mg/kg wet							
Surrogate: Acenaphthene-d10	*0.460*		*mg/kg wet*	0.720		*64*	*50-140*			
Surrogate: Chrysene-d12	*0.513*		*mg/kg wet*	0.720		*71*	*50-140*			
Surrogate: Naphthalene-d8	*0.510*		*mg/kg wet*	0.695		*73*	*50-140*			
Surrogate: Perylene-d12	*0.418*		*mg/kg wet*	0.720		*58*	*50-140*			
Surrogate: Phenanthrene-d10	*0.463*		*mg/kg wet*	0.720		*64*	*55-140*			
LCS (B2J2707-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Acenaphthene	0.577	0.050	mg/kg wet	0.815		71	50-140			
Acenaphthylene	0.547	0.050	mg/kg wet	0.807		68	50-140			
Anthracene	0.564	0.050	mg/kg wet	0.815		69	50-140			
Benz(a)anthracene	0.560	0.050	mg/kg wet	0.814		69	50-140			
Benzo(a)pyrene	0.537	0.050	mg/kg wet	0.809		66	50-140			
Benzo(b)fluoranthene	0.444	0.050	mg/kg wet	0.808		55	50-140			
Benzo(b+j)fluoranthene	1.24	0.050	mg/kg wet	1.61		77	50-140			
Benzo(g,h,i)perylene	0.553	0.050	mg/kg wet	0.807		68	50-140			
Benzo(k)fluoranthene	0.478	0.050	mg/kg wet	0.813		59	50-140			
2-Chloronaphthalene	0.550	0.050	mg/kg wet	0.807		68	50-140			
Chrysene	0.655	0.050	mg/kg wet	0.805		81	50-140			
Dibenz(a,h)anthracene	0.474	0.050	mg/kg wet	0.818		58	50-140			
Fluoranthene	0.557	0.050	mg/kg wet	0.820		68	50-140			
Fluorene	0.538	0.050	mg/kg wet	0.836		64	50-140			
Indeno(1,2,3-cd)pyrene	0.468	0.050	mg/kg wet	0.809		58	50-140			
1-Methylnaphthalene	0.572	0.050	mg/kg wet	0.810		71	50-140			
2-Methylnaphthalene	0.576	0.050	mg/kg wet	0.811		71	50-140			
Naphthalene	0.587	0.050	mg/kg wet	0.813		72	50-140			
Phenanthrene	0.559	0.050	mg/kg wet	0.808		69	50-140			
Pyrene	0.553	0.050	mg/kg wet	0.820		67	50-140			
Quinoline	0.780	0.050	mg/kg wet	0.820		95	50-140			
Surrogate: Acenaphthene-d10	*0.616*		*mg/kg wet*	0.820		*75*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J2707, Continued										
LCS (B2J2707-BS1), Continued				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Surrogate: Chrysene-d12	*0.697*		*mg/kg wet*	0.820		*85*	*50-140*			
Surrogate: Naphthalene-d8	*0.653*		*mg/kg wet*	0.791		*83*	*50-140*			
Surrogate: Perylene-d12	*0.559*		*mg/kg wet*	0.820		*68*	*50-140*			
Surrogate: Phenanthrene-d10	*0.609*		*mg/kg wet*	0.820		*74*	*55-140*			
Strong Acid Leachable Metals, Batch B2J2878										
Blank (B2J2878-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	< 2.0	2.0	mg/kg dry							
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	< 0.20	0.20	mg/kg dry							
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2J2878-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Aluminum	1040	40	mg/kg dry	1000		104	80-120			
Antimony	9.53	0.10	mg/kg dry	10.0		95	80-120			
Arsenic	9.94	0.30	mg/kg dry	10.0		99	80-120			
Barium	10.0	1.0	mg/kg dry	10.0		100	80-120			
Beryllium	10.0	0.10	mg/kg dry	10.0		100	80-120			
Boron	10.3	2.0	mg/kg dry	10.0		103	80-120			
Cadmium	9.77	0.040	mg/kg dry	10.0		98	80-120			
Chromium	10.3	1.0	mg/kg dry	10.0		103	80-120			
Cobalt	10.3	0.10	mg/kg dry	10.0		103	80-120			
Copper	10.3	0.40	mg/kg dry	10.0		103	80-120			
Iron	1050	20	mg/kg dry	1000		105	80-120			
Lead	9.75	0.20	mg/kg dry	10.0		97	80-120			
Lithium	10.1	0.10	mg/kg dry	10.0		101	80-120			
Manganese	10.4	0.40	mg/kg dry	10.0		104	80-120			
Mercury	1.00	0.040	mg/kg dry	1.00		100	80-120			
Molybdenum	9.95	0.10	mg/kg dry	10.0		100	80-120			
Nickel	10.3	0.60	mg/kg dry	10.0		103	80-120			
Selenium	9.76	0.20	mg/kg dry	10.0		98	80-120			
Silver	10.0	0.10	mg/kg dry	10.0		100	80-120			
Strontium	10.2	0.20	mg/kg dry	10.0		102	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J2878, Continued										
LCS (B2J2878-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Thallium	9.63	0.10	mg/kg dry	10.0		96	80-120			
Tin	9.75	0.20	mg/kg dry	10.0		97	80-120			
Tungsten	9.56	0.20	mg/kg dry	10.0		96	80-120			
Uranium	9.78	0.050	mg/kg dry	10.0		98	80-120			
Vanadium	10.4	1.0	mg/kg dry	10.0		104	80-120			
Zinc	10.0	2.0	mg/kg dry	10.0		100	80-120			
Reference (B2J2878-SRM1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Aluminum	10600	40	mg/kg dry	11500		92	70-130			
Antimony	0.59	0.10	mg/kg dry	0.724		82	70-130			
Arsenic	79.0	0.30	mg/kg dry	82.1		96	70-130			
Barium	36.8	1.0	mg/kg dry	40.0		92	70-130			
Beryllium	0.34	0.10	mg/kg dry	0.369		91	70-130			
Chromium	59.6	1.0	mg/kg dry	63.1		94	70-130			
Cobalt	9.94	0.10	mg/kg dry	10.4		96	70-130			
Copper	18.4	0.40	mg/kg dry	19.8		93	70-130			
Iron	19000	20	mg/kg dry	20200		94	70-130			
Lead	15.5	0.20	mg/kg dry	17.3		90	70-130			
Manganese	292	0.40	mg/kg dry	315		93	70-130			
Mercury	0.109	0.040	mg/kg dry	0.110		99	70-130			
Molybdenum	0.57	0.10	mg/kg dry	0.619		92	70-130			
Nickel	30.1	0.60	mg/kg dry	31.7		95	70-130			
Silver	1.44	0.10	mg/kg dry	1.75		82	70-130			
Strontium	18.3	0.20	mg/kg dry	20.3		90	70-130			
Uranium	1.09	0.050	mg/kg dry	1.18		92	70-130			
Vanadium	32.6	1.0	mg/kg dry	33.5		97	70-130			
Zinc	35.4	2.0	mg/kg dry	40.2		88	70-130			
Volatile Organic Compounds (VOC), Batch B2J2790										
Blank (B2J2790-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
Benzene	< 0.030	0.030	mg/kg wet							
Bromodichloromethane	< 0.100	0.100	mg/kg wet							
Bromoform	< 0.100	0.100	mg/kg wet							
Carbon tetrachloride	< 0.050	0.050	mg/kg wet							
Chlorobenzene	< 0.050	0.050	mg/kg wet							
Chloroform	< 0.050	0.050	mg/kg wet							
Dibromochloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dibromoethane	< 0.100	0.100	mg/kg wet							
Dibromomethane	< 0.100	0.100	mg/kg wet							
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,2-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethylene	< 0.050	0.050	mg/kg wet							
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
Dichloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dichloropropane	< 0.050	0.050	mg/kg wet							
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg wet							
Ethylbenzene	< 0.050	0.050	mg/kg wet							
Methyl tert-butyl ether	< 0.040	0.040	mg/kg wet							
Styrene	< 0.050	0.050	mg/kg wet							
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg wet							
Tetrachloroethylene	< 0.050	0.050	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J2790, Continued										
Blank (B2J2790-BLK1), Continued				Prepared: 2022-10-24, Analyzed: 2022-10-25						
Toluene	< 0.200	0.200	mg/kg wet							
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg wet							
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg wet							
Trichloroethylene	< 0.040	0.040	mg/kg wet							
Trichlorofluoromethane	< 0.100	0.100	mg/kg wet							
Vinyl chloride	< 0.100	0.100	mg/kg wet							
Xylenes (total)	< 0.100	0.100	mg/kg wet							
Surrogate: Toluene-d8	*2.27*		*mg/kg wet*	4.00		*57*	*60-140*			*S02*
Surrogate: 4-Bromofluorobenzene	*3.11*		*mg/kg wet*	3.98		*78*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.29*		*mg/kg wet*	3.98		*83*	*60-140*			
Blank (B2J2790-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
Benzene	< 0.030	0.030	mg/kg wet							
Bromodichloromethane	< 0.100	0.100	mg/kg wet							
Bromoform	< 0.100	0.100	mg/kg wet							
Carbon tetrachloride	< 0.050	0.050	mg/kg wet							
Chlorobenzene	< 0.050	0.050	mg/kg wet							
Chloroform	< 0.050	0.050	mg/kg wet							
Dibromochloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dibromoethane	< 0.100	0.100	mg/kg wet							
Dibromomethane	< 0.100	0.100	mg/kg wet							
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,2-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethylene	< 0.050	0.050	mg/kg wet							
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
Dichloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dichloropropane	< 0.050	0.050	mg/kg wet							
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg wet							
Ethylbenzene	< 0.050	0.050	mg/kg wet							
Methyl tert-butyl ether	< 0.040	0.040	mg/kg wet							
Styrene	< 0.050	0.050	mg/kg wet							
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg wet							
Tetrachloroethylene	< 0.050	0.050	mg/kg wet							
Toluene	< 0.200	0.200	mg/kg wet							
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg wet							
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg wet							
Trichloroethylene	< 0.040	0.040	mg/kg wet							
Trichlorofluoromethane	< 0.100	0.100	mg/kg wet							
Vinyl chloride	< 0.100	0.100	mg/kg wet							
Xylenes (total)	< 0.100	0.100	mg/kg wet							
Surrogate: Toluene-d8	*3.36*		*mg/kg wet*	4.00		*84*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2.84*		*mg/kg wet*	3.98		*71*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.06*		*mg/kg wet*	3.98		*77*	*60-140*			
LCS (B2J2790-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
Benzene	2.05	0.030	mg/kg wet	2.00		103	60-140			
Bromodichloromethane	1.29	0.100	mg/kg wet	2.01		64	60-140			
Bromoform	0.848	0.100	mg/kg wet	2.00		42	60-140			SPK
Carbon tetrachloride	1.19	0.050	mg/kg wet	2.01		59	60-140			SPK
Chlorobenzene	1.64	0.050	mg/kg wet	2.01		82	60-140			
Chloroform	1.37	0.050	mg/kg wet	2.01		68	60-140			
Dibromochloromethane	1.04	0.100	mg/kg wet	2.00		52	60-140			SPK

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J2790, Continued										
LCS (B2J2790-BS1), Continued				Prepared: 2022-10-24, Analyzed: 2022-10-25						
1,2-Dibromoethane	1.64	0.100	mg/kg wet	2.00		82	60-140			
Dibromomethane	1.39	0.100	mg/kg wet	2.00		69	60-140			
1,2-Dichlorobenzene	1.54	0.050	mg/kg wet	2.01		77	60-140			
1,3-Dichlorobenzene	1.45	0.050	mg/kg wet	2.01		72	60-140			
1,4-Dichlorobenzene	0.186	0.050	mg/kg wet	2.01		9	60-140			SPK
1,1-Dichloroethane	1.67	0.050	mg/kg wet	2.00		84	60-140			
1,2-Dichloroethane	1.91	0.050	mg/kg wet	2.01		95	60-140			
1,1-Dichloroethylene	1.63	0.050	mg/kg wet	2.00		82	60-140			
cis-1,2-Dichloroethylene	1.41	0.050	mg/kg wet	2.00		71	60-140			
trans-1,2-Dichloroethylene	1.53	0.050	mg/kg wet	2.01		76	60-140			
Dichloromethane	1.72	0.100	mg/kg wet	2.01		85	60-140			
1,2-Dichloropropane	1.93	0.050	mg/kg wet	2.01		96	60-140			
1,3-Dichloropropene (cis + trans)	3.07	0.050	mg/kg wet	4.00		77	60-140			
Ethylbenzene	1.80	0.050	mg/kg wet	2.00		90	60-140			
Methyl tert-butyl ether	1.56	0.040	mg/kg wet	2.00		78	60-140			
Styrene	1.64	0.050	mg/kg wet	2.00		82	60-140			
1,1,2,2-Tetrachloroethane	1.93	0.050	mg/kg wet	2.01		96	60-140			
Tetrachloroethylene	1.45	0.050	mg/kg wet	2.00		72	60-140			
Toluene	1.80	0.200	mg/kg wet	2.00		90	60-140			
1,1,1-Trichloroethane	1.27	0.050	mg/kg wet	2.01		63	60-140			
1,1,2-Trichloroethane	1.77	0.050	mg/kg wet	2.01		88	60-140			
Trichloroethylene	1.47	0.040	mg/kg wet	2.01		73	60-140			
Trichlorofluoromethane	1.12	0.100	mg/kg wet	2.00		56	50-150			
Vinyl chloride	3.65	0.100	mg/kg wet	2.00		182	50-150			SPK
Xylenes (total)	5.55	0.100	mg/kg wet	6.00		92	60-140			
Surrogate: Toluene-d8	*3.53*		*mg/kg wet*	4.00		*88*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2.78*		*mg/kg wet*	3.98		*70*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.03*		*mg/kg wet*	3.98		*76*	*60-140*			
LCS (B2J2790-BS3)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
Benzene	2.20	0.030	mg/kg wet	2.00		110	60-140			
Bromodichloromethane	1.43	0.100	mg/kg wet	2.01		71	60-140			
Bromoform	0.992	0.100	mg/kg wet	2.00		50	60-140			SPK
Carbon tetrachloride	1.30	0.050	mg/kg wet	2.01		65	60-140			
Chlorobenzene	1.80	0.050	mg/kg wet	2.01		89	60-140			
Chloroform	1.52	0.050	mg/kg wet	2.01		76	60-140			
Dibromochloromethane	1.21	0.100	mg/kg wet	2.00		60	60-140			
1,2-Dibromoethane	1.85	0.100	mg/kg wet	2.00		93	60-140			
Dibromomethane	1.58	0.100	mg/kg wet	2.00		79	60-140			
1,2-Dichlorobenzene	1.73	0.050	mg/kg wet	2.01		86	60-140			
1,3-Dichlorobenzene	1.60	0.050	mg/kg wet	2.01		79	60-140			
1,4-Dichlorobenzene	0.210	0.050	mg/kg wet	2.01		10	60-140			SPK
1,1-Dichloroethane	1.76	0.050	mg/kg wet	2.00		88	60-140			
1,2-Dichloroethane	2.10	0.050	mg/kg wet	2.01		104	60-140			
1,1-Dichloroethylene	1.67	0.050	mg/kg wet	2.00		83	60-140			
cis-1,2-Dichloroethylene	1.54	0.050	mg/kg wet	2.00		77	60-140			
trans-1,2-Dichloroethylene	1.63	0.050	mg/kg wet	2.01		81	60-140			
Dichloromethane	1.84	0.100	mg/kg wet	2.01		92	60-140			
1,2-Dichloropropane	2.07	0.050	mg/kg wet	2.01		103	60-140			
1,3-Dichloropropene (cis + trans)	3.40	0.050	mg/kg wet	4.00		85	60-140			
Ethylbenzene	1.90	0.050	mg/kg wet	2.00		95	60-140			
Methyl tert-butyl ether	1.70	0.040	mg/kg wet	2.00		85	60-140			
Styrene	1.78	0.050	mg/kg wet	2.00		89	60-140			
1,1,2,2-Tetrachloroethane	2.13	0.050	mg/kg wet	2.01		106	60-140			
Tetrachloroethylene	1.58	0.050	mg/kg wet	2.00		79	60-140			
Toluene	1.90	0.200	mg/kg wet	2.00		95	60-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J2790, Continued										
LCS (B2J2790-BS3), Continued				Prepared: 2022-10-24, Analyzed: 2022-10-25						
1,1,1-Trichloroethane	1.36	0.050	mg/kg wet	2.01		68	60-140			
1,1,2-Trichloroethane	1.96	0.050	mg/kg wet	2.01		98	60-140			
Trichloroethylene	1.61	0.040	mg/kg wet	2.01		80	60-140			
Trichlorofluoromethane	1.28	0.100	mg/kg wet	2.00		64	50-150			
Vinyl chloride	3.82	0.100	mg/kg wet	2.00		191	50-150			SPK
Xylenes (total)	5.94	0.100	mg/kg wet	6.00		99	60-140			
Surrogate: Toluene-d8	*3.71*		*mg/kg wet*	4.00		*93*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*3.05*		*mg/kg wet*	3.98		*77*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.29*		*mg/kg wet*	3.98		*82*	*60-140*			

QC Qualifiers:

S02	Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.
SPK	The recovery of this analyte was outside of established control limits.

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2565
PROJECT	690667	**REPORTED**	2022-11-29 14:17

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2565-01	2022-11-29	Sample ID	N/A	N/A
22J2565-02	2022-11-29	Sample ID	N/A	N/A
22J2565-03	2022-11-29	Sample ID	N/A	N/A
22J2565-04	2022-11-29	Sample ID	N/A	N/A

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2670
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-19 15:27 / 1.9°C
PROJECT	690667	**REPORTED**	2022-11-29 14:14
PROJECT INFO	Flood Disaster Recovery, Merritt	**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: YES

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-4-221018 (22J2670-01) | Matrix: Water | Sampled: 2022-10-18 15:36					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-25	
EPHw19-32	< 250	250	µg/L	2022-10-25	
Surrogate: 2-Methylnonane (EPH/F2-4)	*91*	*60-140*	%	*2022-10-25*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**111**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-11-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-11-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Barium, dissolved	**0.0505**	0.0050	mg/L	2022-11-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-11-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-11-01	
Calcium, dissolved	**35.5**	0.20	mg/L	2022-11-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Copper, dissolved	**0.00047**	0.00040	mg/L	2022-11-01	
Iron, dissolved	**0.025**	0.010	mg/L	2022-11-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-11-01	
Lithium, dissolved	**0.00024**	0.00010	mg/L	2022-11-01	
Magnesium, dissolved	**5.41**	0.010	mg/L	2022-11-01	
Manganese, dissolved	**0.0121**	0.00020	mg/L	2022-11-01	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, dissolved	**0.00081**	0.00010	mg/L	2022-11-01	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2022-11-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-11-01	
Potassium, dissolved	**1.05**	0.10	mg/L	2022-11-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Silicon, dissolved	**4.0**	1.0	mg/L	2022-11-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-11-01	
Sodium, dissolved	**6.91**	0.10	mg/L	2022-11-01	
Strontium, dissolved	**0.192**	0.0010	mg/L	2022-11-01	
Sulfur, dissolved	< 3.0	3.0	mg/L	2022-11-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-11-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-11-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-11-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-11-01	
Uranium, dissolved	**0.000464**	0.000020	mg/L	2022-11-01	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-4-221018 (22J2670-01) | Matrix: Water | Sampled: 2022-10-18 15:36, Continued					
Dissolved Metals, Continued					
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-11-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
General Parameters					
Carbon, Total Organic	**1.73**	0.50	mg/L	2022-10-24	
Carbon, Dissolved Organic	**1.57**	0.50	mg/L	2022-10-24	
pH	**8.06**	0.10	pH units	2022-10-24	HT2
Solids, Total Dissolved	**142**	15	mg/L	2022-10-26	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-25	
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**167**	1	MPN/100 mL	2022-10-20	HT1
Coliforms, Fecal (Q-Tray)	**1**	1	MPN/100 mL	2022-10-20	HT1
E. coli (Q-Tray)	**1**	1	MPN/100 mL	2022-10-20	HT1
Total Metals					
Aluminum, total	**0.0100**	0.0050	mg/L	2022-10-31	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, total	< 0.00050	0.00050	mg/L	2022-10-31	
Barium, total	**0.0483**	0.0050	mg/L	2022-10-31	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, total	**35.3**	0.20	mg/L	2022-10-31	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, total	**0.00049**	0.00040	mg/L	2022-10-31	
Iron, total	**0.036**	0.010	mg/L	2022-10-31	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, total	**0.00023**	0.00010	mg/L	2022-10-31	
Magnesium, total	**5.52**	0.010	mg/L	2022-10-31	
Manganese, total	**0.0157**	0.00020	mg/L	2022-10-31	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, total	**0.00083**	0.00010	mg/L	2022-10-31	
Nickel, total	< 0.00040	0.00040	mg/L	2022-10-31	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-31	
Potassium, total	**1.03**	0.10	mg/L	2022-10-31	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, total	**4.1**	1.0	mg/L	2022-10-31	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, total	**7.11**	0.10	mg/L	2022-10-31	
Strontium, total	**0.186**	0.0010	mg/L	2022-10-31	
Sulfur, total	< 3.0	3.0	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-4-221018 (22J2670-01) | Matrix: Water | Sampled: 2022-10-18 15:36, Continued					
Total Metals, Continued					
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, total	< 0.0002	0.0002	mg/L	2022-10-31	
Uranium, total	**0.000457**	0.000020	mg/L	2022-10-31	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-31	
SW22-HH2-5-221019 (22J2670-02) | Matrix: Water | Sampled: 2022-10-19 10:17					
Calculated Parameters					
Hardness, Total (as CaCO3)	**50.7**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	**0.0052**	0.0050	mg/L	2022-11-01	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-11-01	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Barium, dissolved	**0.0490**	0.0050	mg/L	2022-11-01	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-11-01	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-11-01	
Calcium, dissolved	**17.4**	0.20	mg/L	2022-11-01	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Copper, dissolved	< 0.00040	0.00040	mg/L	2022-11-01	
Iron, dissolved	**0.017**	0.010	mg/L	2022-11-01	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-11-01	
Lithium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Magnesium, dissolved	**1.73**	0.010	mg/L	2022-11-01	
Manganese, dissolved	**0.0112**	0.00020	mg/L	2022-11-01	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, dissolved	**0.00043**	0.00010	mg/L	2022-11-01	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2022-11-01	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-11-01	
Potassium, dissolved	**0.78**	0.10	mg/L	2022-11-01	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Silicon, dissolved	**3.8**	1.0	mg/L	2022-11-01	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-11-01	
Sodium, dissolved	**3.90**	0.10	mg/L	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-5-221019 (22J2670-02) | Matrix: Water | Sampled: 2022-10-19 10:17, Continued					
Dissolved Metals, Continued					
Strontium, dissolved	**0.125**	0.0010	mg/L	2022-11-01	
Sulfur, dissolved	< 3.0	3.0	mg/L	2022-11-01	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-11-01	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-11-01	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-11-01	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-11-01	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-11-01	
Uranium, dissolved	**0.000055**	0.000020	mg/L	2022-11-01	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-11-01	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-11-01	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-11-01	
General Parameters					
pH	**7.80**	0.10	pH units	2022-10-24	HT2
Solids, Total Dissolved	**67**	15	mg/L	2022-10-26	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-25	
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**225**	1	MPN/100 mL	2022-10-20	
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL	2022-10-20	
E. coli (Q-Tray)	< 1	1	MPN/100 mL	2022-10-20	
Total Metals					
Aluminum, total	**0.0102**	0.0050	mg/L	2022-10-31	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, total	< 0.00050	0.00050	mg/L	2022-10-31	
Barium, total	**0.0464**	0.0050	mg/L	2022-10-31	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, total	**17.3**	0.20	mg/L	2022-10-31	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, total	< 0.00040	0.00040	mg/L	2022-10-31	
Iron, total	**0.037**	0.010	mg/L	2022-10-31	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, total	**0.00012**	0.00010	mg/L	2022-10-31	
Magnesium, total	**1.83**	0.010	mg/L	2022-10-31	
Manganese, total	**0.0117**	0.00020	mg/L	2022-10-31	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, total	**0.00045**	0.00010	mg/L	2022-10-31	
Nickel, total	< 0.00040	0.00040	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH2-5-221019 (22J2670-02) | Matrix: Water | Sampled: 2022-10-19 10:17, Continued					
Total Metals, Continued					
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-31	
Potassium, total	**0.78**	0.10	mg/L	2022-10-31	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, total	**3.8**	1.0	mg/L	2022-10-31	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, total	**4.17**	0.10	mg/L	2022-10-31	
Strontium, total	**0.122**	0.0010	mg/L	2022-10-31	
Sulfur, total	< 3.0	3.0	mg/L	2022-10-31	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, total	< 0.0002	0.0002	mg/L	2022-10-31	
Uranium, total	**0.000064**	0.000020	mg/L	2022-10-31	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-31	
SW22-EH2-3-221018 (22J2670-03) | Matrix: Water | Sampled: 2022-10-18 16:38					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-25	
EPHw19-32	< 250	250	µg/L	2022-10-25	
Surrogate: 2-Methylnonane (EPH/F2-4)	*77*	*60-140*	%	*2022-10-25*	
SW22-EH2-4-221019 (22J2670-04) | Matrix: Water | Sampled: 2022-10-19 08:10					
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-01	
Aldrin	< 0.006	0.006	µg/L	2022-11-01	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-01	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-01	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-01	
beta-BHC	< 0.050	0.050	µg/L	2022-11-01	
delta-BHC	< 0.050	0.050	µg/L	2022-11-01	
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-01	
Bromacil	< 0.100	0.100	µg/L	2022-11-01	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-01	
Butachlor	< 0.020	0.020	µg/L	2022-11-01	
Captan	< 0.100	0.100	µg/L	2022-11-01	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-EH2-4-221019 (22J2670-04) | Matrix: Water | Sampled: 2022-10-19 08:10, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-01	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-01	
Cyanazine	< 0.100	0.100	µg/L	2022-11-01	
DDT, Total	< 0.010	0.010	µg/L	2022-11-01	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-01	
Diazinon	< 0.020	0.020	µg/L	2022-11-01	
Dichlorvos	< 0.100	0.100	µg/L	2022-11-01	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-01	
Dieldrin	< 0.010	0.010	µg/L	2022-11-01	
Dimethoate	< 0.200	0.200	µg/L	2022-11-01	
Disulfoton	< 0.100	0.100	µg/L	2022-11-01	
Diuron	< 0.200	0.200	µg/L	2022-11-01	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-01	
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-01	
Endrin	< 0.020	0.020	µg/L	2022-11-01	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-01	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-01	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-01	
Heptachlor	< 0.010	0.010	µg/L	2022-11-01	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-01	
Linuron	< 0.050	0.050	µg/L	2022-11-01	
Malathion	< 0.100	0.100	µg/L	2022-11-01	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-01	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-01	
Metolachlor	< 0.100	0.100	µg/L	2022-11-01	
Metribuzin	< 0.200	0.200	µg/L	2022-11-01	
Parathion	< 0.100	0.100	µg/L	2022-11-01	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-01	
Permethrin	< 0.010	0.010	µg/L	2022-11-01	
Phorate	< 0.100	0.100	µg/L	2022-11-01	
Prometon	< 1.32	0.300	µg/L	2022-11-01	RQ1
Prometryne	< 0.100	0.100	µg/L	2022-11-01	
Simazine	< 0.200	0.200	µg/L	2022-11-01	
Sulfotep	< 0.100	0.100	µg/L	2022-11-01	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-01	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-01	
Terbufos	< 0.100	0.100	µg/L	2022-11-01	
Triallate	< 0.100	0.100	µg/L	2022-11-01	
Trifluralin	< 0.200	0.200	µg/L	2022-11-01	
Surrogate: Tributyl Phosphate	*85*	*50-140*	%	*2022-11-01*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*70*	*50-140*	%	*2022-11-01*	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-4 (22J2670-05) | Matrix: Soil | Sampled: 2022-10-18 15:38					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-25	
EPHs19-32	< 50	50	mg/kg dry	2022-10-25	
Surrogate: 2-Methylnonane (EPH/F2-4)	*90*	*60-140*	%	*2022-10-25*	
General Parameters					
Carbon, Total Organic	< 0.050	0.050	% dry	2022-10-24	
Moisture	**13.4**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**5.98**	0.10	pH units	2022-10-26	
Microbiological Parameters					
Coliforms, Total	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
Coliforms, Fecal	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
E. coli	< 3.0	3.0	MPN/g dry	2022-10-20	HT1
Particle Size Distribution					
> 75 µm	**98.3**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**8030**	40	mg/kg dry	2022-10-26	
Antimony	**0.12**	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.86**	0.30	mg/kg dry	2022-10-26	
Barium	**55.0**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.19**	0.10	mg/kg dry	2022-10-26	
Boron	**2.2**	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.056**	0.040	mg/kg dry	2022-10-26	
Chromium	**10.7**	1.0	mg/kg dry	2022-10-26	
Cobalt	**6.54**	0.10	mg/kg dry	2022-10-26	
Copper	**16.0**	0.40	mg/kg dry	2022-10-26	
Iron	**18400**	20	mg/kg dry	2022-10-26	
Lead	**3.17**	0.20	mg/kg dry	2022-10-26	
Lithium	**6.59**	0.10	mg/kg dry	2022-10-26	
Manganese	**393**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.41**	0.10	mg/kg dry	2022-10-26	
Nickel	**8.67**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**25.1**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.25**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.322**	0.050	mg/kg dry	2022-10-26	
Vanadium	**44.7**	1.0	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-4 (22J2670-05) | Matrix: Soil | Sampled: 2022-10-18 15:38, Continued					
Strong Acid Leachable Metals, Continued					
Zinc	**37.4**	2.0	mg/kg dry	2022-10-26	
SED22-HH2-5 (22J2670-06) | Matrix: Soil | Sampled: 2022-10-19 10:20					
General Parameters					
Carbon, Total Organic	**0.075**	0.050	% dry	2022-10-24	
Moisture	**18.4**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**5.66**	0.10	pH units	2022-10-26	
Microbiological Parameters					
Coliforms, Total	< 3.0	3.0	MPN/g dry	2022-10-20	
Coliforms, Fecal	< 3.0	3.0	MPN/g dry	2022-10-20	
E. coli	< 3.0	3.0	MPN/g dry	2022-10-20	
Particle Size Distribution					
> 75 µm	**87.3**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**6430**	40	mg/kg dry	2022-10-26	
Antimony	**0.11**	0.10	mg/kg dry	2022-10-26	
Arsenic	**1.63**	0.30	mg/kg dry	2022-10-26	
Barium	**66.1**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.13**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.053**	0.040	mg/kg dry	2022-10-26	
Chromium	**9.2**	1.0	mg/kg dry	2022-10-26	
Cobalt	**5.42**	0.10	mg/kg dry	2022-10-26	
Copper	**15.1**	0.40	mg/kg dry	2022-10-26	
Iron	**16800**	20	mg/kg dry	2022-10-26	
Lead	**2.09**	0.20	mg/kg dry	2022-10-26	
Lithium	**4.92**	0.10	mg/kg dry	2022-10-26	
Manganese	**284**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.59**	0.10	mg/kg dry	2022-10-26	
Nickel	**6.12**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**26.5**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	< 0.20	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.351**	0.050	mg/kg dry	2022-10-26	
Vanadium	**40.8**	1.0	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH2-5 (22J2670-06) | Matrix: Soil | Sampled: 2022-10-19 10:20, Continued					
Strong Acid Leachable Metals, Continued					
Zinc	**27.7**	2.0	mg/kg dry	2022-10-26	
SED22-EH2-2 (22J2670-07) | Matrix: Soil | Sampled: 2022-10-19 11:34					
General Parameters					
Carbon, Total Organic	**0.194**	0.050	% dry	2022-10-24	
Moisture	**15.0**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**6.94**	0.10	pH units	2022-10-26	
Particle Size Distribution					
> 75 µm	**96.6**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-2 (22J2670-07) | Matrix: Soil | Sampled: 2022-10-19 11:34, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*99*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*82*	*50-140*	%	*2022-11-02*	
Strong Acid Leachable Metals					
Aluminum	**8890**	40	mg/kg dry	2022-10-26	
Antimony	**0.12**	0.10	mg/kg dry	2022-10-26	
Arsenic	**1.81**	0.30	mg/kg dry	2022-10-26	
Barium	**74.1**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.17**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.052**	0.040	mg/kg dry	2022-10-26	
Chromium	**11.3**	1.0	mg/kg dry	2022-10-26	
Cobalt	**6.35**	0.10	mg/kg dry	2022-10-26	
Copper	**19.9**	0.40	mg/kg dry	2022-10-26	
Iron	**19100**	20	mg/kg dry	2022-10-26	
Lead	**2.21**	0.20	mg/kg dry	2022-10-26	
Lithium	**7.23**	0.10	mg/kg dry	2022-10-26	
Manganese	**354**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.35**	0.10	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-2 (22J2670-07) | Matrix: Soil | Sampled: 2022-10-19 11:34, Continued					
Strong Acid Leachable Metals, Continued					
Nickel	**7.79**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**32.1**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.31**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.317**	0.050	mg/kg dry	2022-10-26	
Vanadium	**46.1**	1.0	mg/kg dry	2022-10-26	
Zinc	**38.9**	2.0	mg/kg dry	2022-10-26	
SED22-EH2-3 (22J2670-08) | Matrix: Soil | Sampled: 2022-10-18 16:39					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-25	
EPHs19-32	< 50	50	mg/kg dry	2022-10-25	
Surrogate: 2-Methylnonane (EPH/F2-4)	*88*	*60-140*	%	*2022-10-25*	
General Parameters					
Carbon, Total Organic	**0.145**	0.050	% dry	2022-10-24	
Moisture	**7.5**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.93**	0.10	pH units	2022-10-26	
Particle Size Distribution					
> 75 µm	**99.0**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**7270**	40	mg/kg dry	2022-10-26	
Antimony	< 0.10	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.32**	0.30	mg/kg dry	2022-10-26	
Barium	**76.8**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.19**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.042**	0.040	mg/kg dry	2022-10-26	
Chromium	**9.2**	1.0	mg/kg dry	2022-10-26	
Cobalt	**5.09**	0.10	mg/kg dry	2022-10-26	
Copper	**12.8**	0.40	mg/kg dry	2022-10-26	
Iron	**14700**	20	mg/kg dry	2022-10-26	
Lead	**2.10**	0.20	mg/kg dry	2022-10-26	
Lithium	**5.17**	0.10	mg/kg dry	2022-10-26	
Manganese	**307**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.31**	0.10	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-3 (22J2670-08) | Matrix: Soil | Sampled: 2022-10-18 16:39, Continued					
Strong Acid Leachable Metals, Continued					
Nickel	**6.83**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**55.5**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.27**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.278**	0.050	mg/kg dry	2022-10-26	
Vanadium	**35.3**	1.0	mg/kg dry	2022-10-26	
Zinc	**29.0**	2.0	mg/kg dry	2022-10-26	
SED22-EH2-4 (22J2670-09) | Matrix: Soil | Sampled: 2022-10-19 14:43					
General Parameters					
Carbon, Total Organic	**0.176**	0.050	% dry	2022-10-24	
Moisture	**15.4**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.52**	0.10	pH units	2022-10-26	
Particle Size Distribution					
> 75 µm	**98.6**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-4 (22J2670-09) | Matrix: Soil | Sampled: 2022-10-19 14:43, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*110*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*93*	*50-140*	%	*2022-11-02*	
Strong Acid Leachable Metals					
Aluminum	**6890**	40	mg/kg dry	2022-10-26	
Antimony	**0.13**	0.10	mg/kg dry	2022-10-26	
Arsenic	**2.05**	0.30	mg/kg dry	2022-10-26	
Barium	**53.6**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.17**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.044**	0.040	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-4 (22J2670-09) | Matrix: Soil | Sampled: 2022-10-19 14:43, Continued					
Strong Acid Leachable Metals, Continued					
Chromium	**5.7**	1.0	mg/kg dry	2022-10-26	
Cobalt	**4.85**	0.10	mg/kg dry	2022-10-26	
Copper	**12.1**	0.40	mg/kg dry	2022-10-26	
Iron	**15000**	20	mg/kg dry	2022-10-26	
Lead	**1.91**	0.20	mg/kg dry	2022-10-26	
Lithium	**4.88**	0.10	mg/kg dry	2022-10-26	
Manganese	**324**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.39**	0.10	mg/kg dry	2022-10-26	
Nickel	**4.83**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**26.9**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	**0.22**	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.261**	0.050	mg/kg dry	2022-10-26	
Vanadium	**33.1**	1.0	mg/kg dry	2022-10-26	
Zinc	**32.9**	2.0	mg/kg dry	2022-10-26	
SED22-EH2-5 (22J2670-10) | Matrix: Soil | Sampled: 2022-10-19 09:39					
General Parameters					
Carbon, Total Organic	**0.180**	0.050	% dry	2022-10-24	
Moisture	**16.5**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.38**	0.10	pH units	2022-10-26	
Particle Size Distribution					
> 75 µm	**98.0**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**5530**	40	mg/kg dry	2022-10-26	
Antimony	< 0.10	0.10	mg/kg dry	2022-10-26	
Arsenic	**1.04**	0.30	mg/kg dry	2022-10-26	
Barium	**53.2**	1.0	mg/kg dry	2022-10-26	
Beryllium	**0.11**	0.10	mg/kg dry	2022-10-26	
Boron	< 2.0	2.0	mg/kg dry	2022-10-26	
Cadmium	**0.044**	0.040	mg/kg dry	2022-10-26	
Chromium	**7.4**	1.0	mg/kg dry	2022-10-26	
Cobalt	**4.36**	0.10	mg/kg dry	2022-10-26	
Copper	**12.0**	0.40	mg/kg dry	2022-10-26	
Iron	**11800**	20	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH2-5 (22J2670-10) | Matrix: Soil | Sampled: 2022-10-19 09:39, Continued					
Strong Acid Leachable Metals, Continued					
Lead	**1.48**	0.20	mg/kg dry	2022-10-26	
Lithium	**4.40**	0.10	mg/kg dry	2022-10-26	
Manganese	**273**	0.40	mg/kg dry	2022-10-26	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-26	
Molybdenum	**0.31**	0.10	mg/kg dry	2022-10-26	
Nickel	**5.36**	0.60	mg/kg dry	2022-10-26	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-26	
Silver	< 0.10	0.10	mg/kg dry	2022-10-26	
Strontium	**21.4**	0.20	mg/kg dry	2022-10-26	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-26	
Tin	< 0.20	0.20	mg/kg dry	2022-10-26	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-26	
Uranium	**0.179**	0.050	mg/kg dry	2022-10-26	
Vanadium	**27.2**	1.0	mg/kg dry	2022-10-26	
Zinc	**27.8**	2.0	mg/kg dry	2022-10-26	

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
RQ1	Reporting limits have been raised due to QC bias.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2670
REPORTED 2022-11-29 14:14

Analysis Description	Method Ref.	Technique	Accredited	Location
Carbon, Dissolved Organic in Water	SM 5310 B (2017)	Combustion, Infrared CO2 Detection	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2017)	Combustion, Infrared CO2 Detection	✓	Kelowna
Coliforms, Fecal in Soil	TMECC 07.01 B	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Fecal in Water	NA / SM 9223 (2017)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Coliforms, Total in Soil	TMECC 07.01 A	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Total in Water	NA / SM 9223 (2017)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Soil	TMECC 07.01 C	Most Probable Number / Most Probable Number		Kelowna
E. coli in Water	NA / SM 9223 (2017)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
EPH in Soil	EPA 3570* / BCMOE EPHs*	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-FID)	✓	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2017)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Moisture in Soil	ASTM D2974-87*	Gravimetry (Dried at 105C)		N/A
Particle Size in Soil	Carter 55.4*	Mechanical Sieving	✓	Richmond
Pesticides in Soil	EPA 3570* / EPA 8270D*	Shaker Extraction (DCM) / GC-MSD (SIM)	✓	Richmond
Pesticides in Water	EPA 3510C* / EPA 8270D*	Liquid-Liquid DCM Extraction (B/N) / GC-MSD (SIM)	✓	Richmond
pH in Soil	Carter 16.2 / SM 4500-H+ B (2017)	1:2 Soil/Water Slurry / Electrometry	✓	Richmond
pH in Water	SM 4500-H+ B (2017)	Electrometry	✓	Kelowna
SALM in Soil	BCMOE SALM V.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2017)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Solids, Total Suspended in Water	Solids in Water, Filtered / SM 2540 D* (2017)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

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Glossary of Terms:

RL	Reporting Limit (default)
% dry	Percent (dry weight basis)
% wet	Percent (as received basis)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/kg dry	Milligrams per kilogram (dry weight basis)
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
MPN/g dry	Most Probable Number per gram (dry weight basis)
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
ASTM	ASTM International Test Methods
Carter	Soil Sampling and Methods of Analysis, 2nd Edition (2007), Carter/Gregorich
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association
TMECC	Test Method for the Examination of Composting and Compost, US Composting Council

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J2814										
Blank (B2J2814-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*71.3*		*mg/kg wet*	77.6		*92*	*60-140*			
Blank (B2J2814-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*66.0*		*mg/kg wet*	71.9		*92*	*60-140*			
LCS (B2J2814-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
EPHs10-19	2700	50	mg/kg wet	2830		94	70-130			
EPHs19-32	3900	50	mg/kg wet	4070		95	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*77.8*		*mg/kg wet*	81.7		*95*	*60-140*			
LCS (B2J2814-BS4)				Prepared: 2022-10-24, Analyzed: 2022-10-25						
EPHs10-19	2600	50	mg/kg wet	2800		93	70-130			
EPHs19-32	3800	50	mg/kg wet	4020		95	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*68.4*		*mg/kg wet*	80.6		*85*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B2J2825										
Blank (B2J2825-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2100*		*µg/L*	2220		*94*	*60-140*			
LCS (B2J2825-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
EPHw10-19	16900	250	µg/L	15400		110	70-130			
EPHw19-32	23200	250	µg/L	22100		105	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*2000*		*µg/L*	2220		*90*	*60-140*			
LCS Dup (B2J2825-BSD2)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
EPHw10-19	17100	250	µg/L	15400		111	70-130	1	20	
EPHw19-32	24600	250	µg/L	22100		111	70-130	6	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1920*		*µg/L*	2220		*87*	*60-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3251										
Blank (B2J3251-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3251-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B2J3251-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	0.000488	0.000010	mg/L	0.000500		98	80-120			
LCS (B2J3251-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	0.000498	0.000010	mg/L	0.000500		100	80-120			
Dissolved Metals, Batch B2J3631										
Blank (B2J3631-BLK1)				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B2J3631-BS1)				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum, dissolved	4.11	0.0050	mg/L	4.00		103	80-120			
Antimony, dissolved	0.0402	0.00020	mg/L	0.0400		101	80-120			
Arsenic, dissolved	0.0421	0.00050	mg/L	0.0400		105	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

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PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3631, Continued										
LCS (B2J3631-BS1), Continued				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Barium, dissolved	0.0396	0.0050	mg/L	0.0400		99	80-120			
Beryllium, dissolved	0.0402	0.00010	mg/L	0.0400		100	80-120			
Bismuth, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400		103	80-120			
Cadmium, dissolved	0.0402	0.000010	mg/L	0.0400		101	80-120			
Calcium, dissolved	4.04	0.20	mg/L	4.00		101	80-120			
Chromium, dissolved	0.0418	0.00050	mg/L	0.0400		104	80-120			
Cobalt, dissolved	0.0417	0.00010	mg/L	0.0400		104	80-120			
Copper, dissolved	0.0407	0.00040	mg/L	0.0400		102	80-120			
Iron, dissolved	4.16	0.010	mg/L	4.00		104	80-120			
Lead, dissolved	0.0407	0.00020	mg/L	0.0400		102	80-120			
Lithium, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Magnesium, dissolved	4.11	0.010	mg/L	4.00		103	80-120			
Manganese, dissolved	0.0414	0.00020	mg/L	0.0400		104	80-120			
Molybdenum, dissolved	0.0397	0.00010	mg/L	0.0400		99	80-120			
Nickel, dissolved	0.0409	0.00040	mg/L	0.0400		102	80-120			
Phosphorus, dissolved	4.09	0.050	mg/L	4.00		102	80-120			
Potassium, dissolved	4.22	0.10	mg/L	4.00		106	80-120			
Selenium, dissolved	0.0407	0.00050	mg/L	0.0400		102	80-120			
Silicon, dissolved	4.3	1.0	mg/L	4.00		106	80-120			
Silver, dissolved	0.0409	0.000050	mg/L	0.0400		102	80-120			
Sodium, dissolved	4.12	0.10	mg/L	4.00		103	80-120			
Strontium, dissolved	0.0412	0.0010	mg/L	0.0400		103	80-120			
Sulfur, dissolved	42.1	3.0	mg/L	40.0		105	80-120			
Tellurium, dissolved	0.0392	0.00050	mg/L	0.0400		98	80-120			
Thallium, dissolved	0.0402	0.000020	mg/L	0.0400		101	80-120			
Thorium, dissolved	0.0419	0.00010	mg/L	0.0400		105	80-120			
Tin, dissolved	0.0397	0.00020	mg/L	0.0400		99	80-120			
Titanium, dissolved	0.0411	0.0050	mg/L	0.0400		103	80-120			
Tungsten, dissolved	0.0410	0.0010	mg/L	0.0400		103	80-120			
Uranium, dissolved	0.0404	0.000020	mg/L	0.0400		101	80-120			
Vanadium, dissolved	0.0416	0.0050	mg/L	0.0400		104	80-120			
Zinc, dissolved	0.0417	0.0040	mg/L	0.0400		104	80-120			
Zirconium, dissolved	0.0393	0.00010	mg/L	0.0400		98	80-120			
Duplicate (B2J3631-DUP1)		**Source: 22J2670-01**		Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Antimony, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Arsenic, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Barium, dissolved	0.0493	0.0050	mg/L		0.0505			2	20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Boron, dissolved	< 0.0500	0.0500	mg/L		< 0.0500				20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L		< 0.000010				20	
Calcium, dissolved	35.2	0.20	mg/L		35.5			< 1	20	
Chromium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Copper, dissolved	0.00047	0.00040	mg/L		0.00047				20	
Iron, dissolved	0.024	0.010	mg/L		0.025				20	
Lead, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Lithium, dissolved	0.00024	0.00010	mg/L		0.00024				20	
Magnesium, dissolved	5.48	0.010	mg/L		5.41			1	20	
Manganese, dissolved	0.0120	0.00020	mg/L		0.0121			< 1	20	
Molybdenum, dissolved	0.00082	0.00010	mg/L		0.00081			1	20	
Nickel, dissolved	< 0.00040	0.00040	mg/L		< 0.00040				20	
Phosphorus, dissolved	< 0.050	0.050	mg/L		< 0.050				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3631, Continued										
Duplicate (B2J3631-DUP1), Continued		**Source: 22J2670-01**		Prepared: 2022-11-01, Analyzed: 2022-11-01						
Potassium, dissolved	1.05	0.10	mg/L		1.05			< 1	20	
Selenium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Silicon, dissolved	4.0	1.0	mg/L		4.0				20	
Silver, dissolved	< 0.000050	0.000050	mg/L		< 0.000050				20	
Sodium, dissolved	7.03	0.10	mg/L		6.91			2	20	
Strontium, dissolved	0.194	0.0010	mg/L		0.192			1	20	
Sulfur, dissolved	< 3.0	3.0	mg/L		< 3.0				20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020	mg/L		< 0.000020				20	
Thorium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Tin, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Uranium, dissolved	0.000464	0.000020	mg/L		0.000464			< 1	20	
Vanadium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Zinc, dissolved	< 0.0040	0.0040	mg/L		< 0.0040				20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Matrix Spike (B2J3631-MS1)		**Source: 22J2670-02**		Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum, dissolved	3.93	0.0050	mg/L	4.00	0.0052	98	70-130			
Antimony, dissolved	0.0392	0.00020	mg/L	0.0400	< 0.00020	98	70-130			
Arsenic, dissolved	0.0417	0.00050	mg/L	0.0400	< 0.00050	104	70-130			
Barium, dissolved	0.0883	0.0050	mg/L	0.0400	0.0490	98	70-130			
Beryllium, dissolved	0.0407	0.00010	mg/L	0.0400	< 0.00010	102	70-130			
Bismuth, dissolved	0.0360	0.00010	mg/L	0.0400	< 0.00010	90	70-130			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400	< 0.0500	100	70-130			
Cadmium, dissolved	0.0421	0.000010	mg/L	0.0400	< 0.000010	105	70-130			
Calcium, dissolved	20.8	0.20	mg/L	4.00	17.4	85	70-130			
Chromium, dissolved	0.0405	0.00050	mg/L	0.0400	< 0.00050	101	70-130			
Cobalt, dissolved	0.0396	0.00010	mg/L	0.0400	< 0.00010	99	70-130			
Copper, dissolved	0.0396	0.00040	mg/L	0.0400	< 0.00040	98	70-130			
Iron, dissolved	4.02	0.010	mg/L	4.00	0.017	100	70-130			
Lead, dissolved	0.0410	0.00020	mg/L	0.0400	< 0.00020	103	70-130			
Lithium, dissolved	0.0416	0.00010	mg/L	0.0400	0.00010	104	70-130			
Magnesium, dissolved	5.67	0.010	mg/L	4.00	1.73	98	70-130			
Manganese, dissolved	0.0511	0.00020	mg/L	0.0400	0.0112	100	70-130			
Molybdenum, dissolved	0.0405	0.00010	mg/L	0.0400	0.00043	100	70-130			
Nickel, dissolved	0.0391	0.00040	mg/L	0.0400	< 0.00040	98	70-130			
Phosphorus, dissolved	4.10	0.050	mg/L	4.00	< 0.050	103	70-130			
Potassium, dissolved	4.90	0.10	mg/L	4.00	0.78	103	70-130			
Selenium, dissolved	0.0420	0.00050	mg/L	0.0400	< 0.00050	105	70-130			
Silicon, dissolved	7.9	1.0	mg/L	4.00	3.8	102	70-130			
Silver, dissolved	0.0380	0.000050	mg/L	0.0400	< 0.000050	95	70-130			
Sodium, dissolved	7.69	0.10	mg/L	4.00	3.90	95	70-130			
Strontium, dissolved	0.164	0.0010	mg/L	0.0400	0.125	96	70-130			
Sulfur, dissolved	41.7	3.0	mg/L	40.0	< 3.0	102	70-130			
Tellurium, dissolved	0.0432	0.00050	mg/L	0.0400	< 0.00050	108	70-130			
Thallium, dissolved	0.0405	0.000020	mg/L	0.0400	< 0.000020	101	70-130			
Thorium, dissolved	0.0426	0.00010	mg/L	0.0400	< 0.00010	107	70-130			
Tin, dissolved	0.0427	0.00020	mg/L	0.0400	< 0.00020	107	70-130			
Titanium, dissolved	0.0402	0.0050	mg/L	0.0400	< 0.0050	101	70-130			
Tungsten, dissolved	0.0410	0.0010	mg/L	0.0400	< 0.0010	103	70-130			
Uranium, dissolved	0.0406	0.000020	mg/L	0.0400	0.000055	101	70-130			
Vanadium, dissolved	0.0411	0.0050	mg/L	0.0400	< 0.0050	102	70-130			
Zinc, dissolved	0.0421	0.0040	mg/L	0.0400	< 0.0040	104	70-130			
Zirconium, dissolved	0.0412	0.00010	mg/L	0.0400	< 0.00010	103	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2390										
Blank (B2J2390-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	< 0.050	0.050	% dry							
Blank (B2J2390-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.050	0.050	% dry							
Reference (B2J2390-SRM1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	0.772	0.050	% dry	0.645		120	80-120			
Reference (B2J2390-SRM2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	0.688	0.050	% dry	0.645		107	80-120			
General Parameters, Batch B2J2399										
Blank (B2J2399-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2399-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2399-BLK3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2399-BLK4)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
LCS (B2J2399-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.01	0.50	mg/L	10.0		90	78-116			
Carbon, Dissolved Organic	9.67	0.50	mg/L	10.0		97	78-116			
LCS (B2J2399-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.12	0.50	mg/L	10.0		91	78-116			
Carbon, Dissolved Organic	9.66	0.50	mg/L	10.0		97	78-116			
LCS (B2J2399-BS3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.34	0.50	mg/L	10.0		93	78-116			
Carbon, Dissolved Organic	9.33	0.50	mg/L	10.0		93	78-116			
LCS (B2J2399-BS4)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.27	0.50	mg/L	10.0		93	78-116			
Carbon, Dissolved Organic	9.27	0.50	mg/L	10.0		93	78-116			
General Parameters, Batch B2J2649										
Reference (B2J2649-SRM1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Moisture	99.0	1.0	% wet	6.5		99	80-120			
General Parameters, Batch B2J2693										
Reference (B2J2693-SRM1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
pH	7.03	0.10	pH units	7.01		100	98-102			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2706										
Blank (B2J2706-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B2J2706-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
Solids, Total Suspended	91.0	10.0	mg/L	100		91	85-115			
General Parameters, Batch B2J2774										
Blank (B2J2774-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	< 15	15	mg/L							
Blank (B2J2774-BLK2)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B2J2774-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	253	15	mg/L	240		105	85-115			
LCS (B2J2774-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Solids, Total Dissolved	259	15	mg/L	240		108	85-115			
General Parameters, Batch B2J2841										
Blank (B2J2841-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-25						
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B2J2841-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-25						
Solids, Total Suspended	87.0	10.0	mg/L	100		87	85-115			
General Parameters, Batch B2J2966										
Duplicate (B2J2966-DUP2)	**Source: 22J2670-06**			Prepared: 2022-10-26, Analyzed: 2022-10-26						
pH (1:2 H2O Solution)	5.57	0.10	pH units		5.66			2	4	
Reference (B2J2966-SRM1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
pH (1:2 H2O Solution)	7.11	0.10	pH units	6.91		103	95-105			
Microbiological Parameters, Batch B2J2338										
Blank (B2J2338-BLK1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK2)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK3)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK4)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK5)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Microbiological Parameters, Batch B2J2338, Continued										
Blank (B2J2338-BLK6)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK7)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Microbiological Parameters, Batch B2J2391										
Blank (B2J2391-BLK1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Pesticides, Herbicides, and Fungicides, Batch B2J2906										
Blank (B2J2906-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	< 0.100	0.100	µg/L							
Aldrin	< 0.006	0.006	µg/L							
Atrazine and metabolites	< 0.100	0.100	µg/L							
Azinphos-methyl	< 0.200	0.200	µg/L							
alpha-BHC	< 0.010	0.010	µg/L							
beta-BHC	< 0.050	0.050	µg/L							
delta-BHC	< 0.050	0.050	µg/L							
gamma-BHC (Lindane)	< 0.050	0.050	µg/L							
Bromacil	< 0.100	0.100	µg/L							
Bromoxynil	< 0.200	0.200	µg/L							
Butachlor	< 0.020	0.020	µg/L							
Captan	< 0.100	0.100	µg/L							
Chlordane (cis + trans)	< 0.050	0.050	µg/L							
Chlorothalonil	< 0.050	0.050	µg/L							
Chlorpyrifos	< 0.010	0.010	µg/L							
Cyanazine	< 0.100	0.100	µg/L							
DDT, Total	0.012	0.010	µg/L							BLK
Deltamethrin	0.151	0.100	µg/L							BLK
Diazinon	< 0.020	0.020	µg/L							
Dichlorvos	< 0.100	0.100	µg/L							
Diclofop-methyl	< 0.100	0.100	µg/L							
Dieldrin	< 0.010	0.010	µg/L							
Dimethoate	< 0.200	0.200	µg/L							
Disulfoton	< 0.100	0.100	µg/L							
Diuron	< 0.200	0.200	µg/L							
Endosulfan I + II	< 0.010	0.010	µg/L							
Endosulfan sulfate	< 0.050	0.050	µg/L							
Endrin	< 0.020	0.020	µg/L							
Endrin aldehyde	< 0.020	0.020	µg/L							
Endrin ketone	< 0.020	0.020	µg/L							
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L							
Heptachlor	< 0.010	0.010	µg/L							
Heptachlor epoxide	< 0.010	0.010	µg/L							
Linuron	< 0.050	0.050	µg/L							
Malathion	< 0.100	0.100	µg/L							
Methoxychlor	< 0.050	0.050	µg/L							
Methyl parathion	< 0.100	0.100	µg/L							
Metolachlor	< 0.100	0.100	µg/L							
Metribuzin	< 0.200	0.200	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
Blank (B2J2906-BLK1), Continued				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Parathion	< 0.100	0.100	µg/L							
Pentachloronitrobenzene	< 0.100	0.100	µg/L							
Permethrin	0.015	0.010	µg/L							BLK
Phorate	< 0.100	0.100	µg/L							
Prometon	< 0.300	0.300	µg/L							RQ1
Prometryne	< 0.100	0.100	µg/L							
Simazine	< 0.200	0.200	µg/L							
Sulfotep	< 0.100	0.100	µg/L							
Tebuthiuron	< 0.200	0.200	µg/L							
Temephos (Abate)	< 0.500	0.500	µg/L							
Terbufos	< 0.100	0.100	µg/L							
Triallate	< 0.100	0.100	µg/L							
Trifluralin	< 0.200	0.200	µg/L							
Surrogate: Tributyl Phosphate	*0.780*		*µg/L*	0.998		*78*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.619*		*µg/L*	1.00		*62*	*50-140*			
LCS (B2J2906-BS1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	0.768	0.100	µg/L	1.01		76	50-140			
Aldrin	0.725	0.006	µg/L	1.00		73	50-140			
Atrazine	0.612	0.100	µg/L	1.01		61	50-140			
Atrazine-desethyl	0.193	0.100	µg/L	1.03		19	50-140			SPK
Azinphos-methyl	0.936	0.200	µg/L	0.981		95	50-140			
alpha-BHC	0.683	0.010	µg/L	1.01		68	50-140			
beta-BHC	0.733	0.050	µg/L	1.01		73	50-140			
delta-BHC	0.719	0.050	µg/L	1.00		72	50-140			
gamma-BHC (Lindane)	0.681	0.050	µg/L	1.00		68	50-140			
Bromacil	0.761	0.100	µg/L	1.01		75	50-140			
Bromoxynil	0.645	0.200	µg/L	0.978		66	50-140			
Butachlor	0.841	0.020	µg/L	1.01		83	50-140			
Captan	0.787	0.100	µg/L	0.996		79	50-140			
Chlordane (cis + trans)	1.46	0.050	µg/L	2.01		73	50-140			
Chlorothalonil	0.657	0.050	µg/L	1.01		65	50-140			
Chlorpyrifos	0.767	0.010	µg/L	1.00		77	50-140			
Cyanazine	0.742	0.100	µg/L	1.01		73	50-140			
DDT, Total	4.63	0.010	µg/L	5.97		77	50-140			
Deltamethrin	8.60	0.100	µg/L	10.1		85	50-140			
Diazinon	0.738	0.020	µg/L	1.00		74	50-140			
Dichlorvos	0.741	0.100	µg/L	1.09		68	50-140			
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140			
Dieldrin	0.768	0.010	µg/L	1.00		77	50-140			
Dimethoate	0.619	0.200	µg/L	0.990		63	50-140			
Disulfoton	0.633	0.100	µg/L	1.02		62	50-140			
Diuron	0.916	0.200	µg/L	1.06		86	50-140			
Endosulfan I + II	1.55	0.010	µg/L	2.01		77	50-140			
Endosulfan sulfate	0.774	0.050	µg/L	1.01		77	50-140			
Endrin	0.767	0.020	µg/L	1.01		76	50-140			
Endrin aldehyde	0.843	0.020	µg/L	1.00		84	50-140			
Endrin ketone	0.738	0.020	µg/L	1.01		73	50-140			
Fenchlorphos (Ronnel)	0.659	0.100	µg/L	1.03		64	50-140			
Heptachlor	0.687	0.010	µg/L	1.01		68	50-140			
Heptachlor epoxide	0.715	0.010	µg/L	1.01		71	50-140			
Linuron	0.817	0.050	µg/L	1.07		76	50-140			
Malathion	0.885	0.100	µg/L	1.00		88	50-140			
Methoxychlor	0.808	0.050	µg/L	1.01		80	50-140			
Methyl parathion	0.738	0.100	µg/L	0.997		74	50-140			
Metolachlor	0.809	0.100	µg/L	1.00		81	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
LCS (B2J2906-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Metribuzin	0.691	0.200	µg/L	1.00		69	50-140			
Parathion	0.853	0.100	µg/L	0.999		85	50-140			
Pentachloronitrobenzene	0.658	0.100	µg/L	0.989		66	50-140			
Permethrin	1.06	0.010	µg/L	1.04		102	50-140			
Phorate	0.666	0.100	µg/L	1.00		67	50-140			
Prometon	< 0.300	0.300	µg/L	1.00		23	50-140			SPK
Prometryne	0.504	0.100	µg/L	1.00		50	50-140			
Simazine	0.511	0.200	µg/L	1.01		51	50-140			
Sulfotep	0.586	0.100	µg/L	1.04		56	50-140			
Tebuthiuron	0.520	0.200	µg/L	1.01		52	50-140			
Temephos (Abate)	8.39	0.500	µg/L	10.5		80	50-140			
Terbufos	0.696	0.100	µg/L	0.994		70	50-140			
Triallate	0.684	0.100	µg/L	1.01		68	50-140			
Trifluralin	0.721	0.200	µg/L	1.00		72	50-140			
Surrogate: Tributyl Phosphate	*0.768*		*µg/L*	0.998		*77*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.638*		*µg/L*	1.00		*64*	*50-140*			
LCS Dup (B2J2906-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	0.750	0.100	µg/L	1.01		74	50-140	2	30	
Aldrin	0.673	0.006	µg/L	1.00		67	50-140	8	30	
Atrazine	0.710	0.100	µg/L	1.01		70	50-140	15	30	
Atrazine-desethyl	0.461	0.100	µg/L	1.03		45	50-140	82	30	SPK
Azinphos-methyl	0.933	0.200	µg/L	0.981		95	50-140	< 1	30	
alpha-BHC	0.669	0.010	µg/L	1.01		66	50-140	2	30	
beta-BHC	0.711	0.050	µg/L	1.01		70	50-140	3	30	
delta-BHC	0.691	0.050	µg/L	1.00		69	50-140	4	30	
gamma-BHC (Lindane)	0.672	0.050	µg/L	1.00		67	50-140	1	30	
Bromacil	0.820	0.100	µg/L	1.01		81	50-140	7	30	
Bromoxynil	0.686	0.200	µg/L	0.978		70	50-140	6	30	
Butachlor	0.860	0.020	µg/L	1.01		85	50-140	2	30	
Captan	0.766	0.100	µg/L	0.996		77	50-140	3	30	
Chlordane (cis + trans)	1.41	0.050	µg/L	2.01		70	50-140	4	30	
Chlorothalonil	0.690	0.050	µg/L	1.01		68	50-140	5	30	
Chlorpyrifos	0.726	0.010	µg/L	1.00		73	50-140	5	30	
Cyanazine	0.783	0.100	µg/L	1.01		78	50-140	5	30	
DDT, Total	4.35	0.010	µg/L	5.97		73	50-140	6	30	
Deltamethrin	7.83	0.100	µg/L	10.1		78	50-140	9	30	
Diazinon	0.776	0.020	µg/L	1.00		78	50-140	5	30	
Dichlorvos	0.753	0.100	µg/L	1.09		69	50-140	2	30	
Diclofop-methyl	0.795	0.100	µg/L	1.02		78	50-140	4	30	
Dieldrin	0.759	0.010	µg/L	1.00		76	50-140	1	30	
Dimethoate	0.685	0.200	µg/L	0.990		69	50-140	10	30	
Disulfoton	0.628	0.100	µg/L	1.02		62	50-140	< 1	30	
Diuron	0.850	0.200	µg/L	1.06		80	50-140	7	30	
Endosulfan I + II	1.50	0.010	µg/L	2.01		75	50-140	3	30	
Endosulfan sulfate	0.747	0.050	µg/L	1.01		74	50-140	4	30	
Endrin	0.765	0.020	µg/L	1.01		76	50-140	< 1	30	
Endrin aldehyde	0.816	0.020	µg/L	1.00		82	50-140	3	30	
Endrin ketone	0.722	0.020	µg/L	1.01		71	50-140	2	30	
Fenchlorphos (Ronnel)	0.679	0.100	µg/L	1.03		66	50-140	3	30	
Heptachlor	0.662	0.010	µg/L	1.01		66	50-140	4	30	
Heptachlor epoxide	0.721	0.010	µg/L	1.01		71	50-140	< 1	30	
Linuron	1.14	0.050	µg/L	1.07		107	50-140	33	30	RPD
Malathion	0.842	0.100	µg/L	1.00		84	50-140	5	30	
Methoxychlor	0.798	0.050	µg/L	1.01		79	50-140	1	30	
Methyl parathion	0.745	0.100	µg/L	0.997		75	50-140	1	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2670
REPORTED 2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
LCS Dup (B2J2906-BSD1), Continued				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Metolachlor	0.800	0.100	µg/L	1.00		80	50-140	1	30	
Metribuzin	0.779	0.200	µg/L	1.00		78	50-140	12	30	
Parathion	0.850	0.100	µg/L	0.999		85	50-140	< 1	30	
Pentachloronitrobenzene	0.647	0.100	µg/L	0.989		65	50-140	2	30	
Permethrin	0.957	0.010	µg/L	1.04		92	50-140	10	30	
Phorate	0.670	0.100	µg/L	1.00		67	50-140	< 1	30	
Prometon	0.391	0.300	µg/L	1.00		39	50-140	52	30	SPK
Prometryne	0.605	0.100	µg/L	1.00		60	50-140	18	30	
Simazine	0.649	0.200	µg/L	1.01		64	50-140	24	30	
Sulfotep	0.584	0.100	µg/L	1.04		56	50-140	< 1	30	
Tebuthiuron	0.888	0.200	µg/L	1.01		88	50-140	52	30	RPD
Temephos (Abate)	7.76	0.500	µg/L	10.5		74	50-140	8	30	
Terbufos	0.704	0.100	µg/L	0.994		71	50-140	1	30	
Triallate	0.670	0.100	µg/L	1.01		66	50-140	2	30	
Trifluralin	0.741	0.200	µg/L	1.00		74	50-140	3	30	
Surrogate: Tributyl Phosphate	*0.790*		*µg/L*	0.998		*79*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.635*		*µg/L*	1.00		*64*	*50-140*			
Pesticides, Herbicides, and Fungicides, Batch B2J2996										
Blank (B2J2996-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	< 0.0050	0.0050	mg/kg wet							
Aldrin	< 0.0050	0.0050	mg/kg wet							
Atrazine and metabolites	< 0.0050	0.0050	mg/kg wet							
Azinphos-methyl	< 0.0100	0.0100	mg/kg wet							
alpha-BHC	< 0.0050	0.0050	mg/kg wet							
beta-BHC	< 0.0050	0.0050	mg/kg wet							
delta-BHC	< 0.0050	0.0050	mg/kg wet							
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg wet							
Bromacil	< 0.0050	0.0050	mg/kg wet							
Bromoxynil	< 0.0200	0.0200	mg/kg wet							
Butachlor	< 0.0050	0.0050	mg/kg wet							
Captan	< 0.0200	0.0200	mg/kg wet							
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg wet							
Chlorothalonil	< 0.0050	0.0050	mg/kg wet							
Chlorpyrifos	< 0.0100	0.0100	mg/kg wet							
Cyanazine	< 0.0100	0.0100	mg/kg wet							
DDT, Total	< 0.0100	0.0100	mg/kg wet							
Deltamethrin	< 0.0500	0.0500	mg/kg wet							
Diazinon	< 0.0100	0.0100	mg/kg wet							
Dichlorvos	< 0.0100	0.0100	mg/kg wet							
Diclofop-methyl	< 0.0050	0.0050	mg/kg wet							
Dieldrin	< 0.0050	0.0050	mg/kg wet							
Dimethoate	< 0.0100	0.0100	mg/kg wet							
Disulfoton	< 0.0200	0.0200	mg/kg wet							
Diuron	< 0.0200	0.0200	mg/kg wet							
Endosulfan I + II	< 0.0050	0.0050	mg/kg wet							
Endosulfan sulfate	< 0.0050	0.0050	mg/kg wet							
Endrin	< 0.0050	0.0050	mg/kg wet							
Endrin aldehyde	< 0.0050	0.0050	mg/kg wet							
Endrin ketone	< 0.0050	0.0050	mg/kg wet							
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg wet							
Heptachlor	< 0.0050	0.0050	mg/kg wet							
Heptachlor epoxide	< 0.0050	0.0050	mg/kg wet							
Linuron	< 0.0400	0.0400	mg/kg wet							
Malathion	< 0.0100	0.0100	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2670
PROJECT 690667 **REPORTED** 2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
Blank (B2J2996-BLK1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Methoxychlor	< 0.0050	0.0050	mg/kg wet							
Methyl parathion	< 0.0100	0.0100	mg/kg wet							
Metolachlor	< 0.0100	0.0100	mg/kg wet							
Metribuzin	< 0.0100	0.0100	mg/kg wet							
Parathion	< 0.0100	0.0100	mg/kg wet							
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg wet							
Permethrin	< 0.0050	0.0050	mg/kg wet							
Phorate	< 0.0100	0.0100	mg/kg wet							
Prometon	< 0.0100	0.0100	mg/kg wet							
Prometryne	< 0.0050	0.0050	mg/kg wet							
Simazine	< 0.0100	0.0100	mg/kg wet							
Sulfotep	< 0.0100	0.0100	mg/kg wet							
Tebuthiuron	< 0.0200	0.0200	mg/kg wet							
Temephos (Abate)	< 0.0500	0.0500	mg/kg wet							
Terbufos	< 0.0100	0.0100	mg/kg wet							
Triallate	< 0.0050	0.0050	mg/kg wet							
Trifluralin	< 0.0100	0.0100	mg/kg wet							
Surrogate: Tributyl Phosphate	*0.0845*		*mg/kg wet*	0.0802		*105*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0715*		*mg/kg wet*	0.0804		*89*	*50-140*			
LCS (B2J2996-BS1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	0.0807	0.0050	mg/kg wet	0.0834		97	50-140			
Aldrin	0.0898	0.0050	mg/kg wet	0.0826		109	50-140			
Atrazine and metabolites	0.156	0.0050	mg/kg wet	0.167		93	50-140			
Azinphos-methyl	0.105	0.0100	mg/kg wet	0.0810		130	50-140			
alpha-BHC	0.0715	0.0050	mg/kg wet	0.0834		86	50-140			
beta-BHC	0.0752	0.0050	mg/kg wet	0.0834		90	50-140			
delta-BHC	0.0747	0.0050	mg/kg wet	0.0826		90	50-140			
gamma-BHC (Lindane)	0.0713	0.0050	mg/kg wet	0.0826		86	50-140			
Bromacil	0.0986	0.0050	mg/kg wet	0.0834		118	50-140			
Bromoxynil	0.0776	0.0200	mg/kg wet	0.0808		96	50-140			
Butachlor	0.0964	0.0050	mg/kg wet	0.0834		116	50-140			
Captan	0.0931	0.0200	mg/kg wet	0.0822		113	50-140			
Chlordane (cis + trans)	0.156	0.0050	mg/kg wet	0.166		94	50-140			
Chlorothalonil	0.0731	0.0050	mg/kg wet	0.0834		88	50-140			
Chlorpyrifos	0.0802	0.0100	mg/kg wet	0.0826		97	50-140			
Cyanazine	0.0899	0.0100	mg/kg wet	0.0834		108	50-140			
DDT, Total	0.529	0.0100	mg/kg wet	0.493		107	50-140			
Deltamethrin	0.950	0.0500	mg/kg wet	0.834		114	50-140			
Diazinon	0.0831	0.0100	mg/kg wet	0.0826		101	50-140			
Dichlorvos	0.0810	0.0100	mg/kg wet	0.0900		90	50-140			
Diclofop-methyl	0.0912	0.0050	mg/kg wet	0.0842		108	50-140			
Dieldrin	0.0848	0.0050	mg/kg wet	0.0826		103	50-140			
Dimethoate	0.0888	0.0100	mg/kg wet	0.0818		109	50-140			
Disulfoton	0.0710	0.0200	mg/kg wet	0.0842		84	50-140			
Diuron	0.0906	0.0200	mg/kg wet	0.0875		104	50-140			
Endosulfan I + II	0.170	0.0050	mg/kg wet	0.166		103	50-140			
Endosulfan sulfate	0.0855	0.0050	mg/kg wet	0.0834		103	50-140			
Endrin	0.0869	0.0050	mg/kg wet	0.0834		104	50-140			
Endrin aldehyde	0.0919	0.0050	mg/kg wet	0.0826		111	50-140			
Endrin ketone	0.0811	0.0050	mg/kg wet	0.0834		97	50-140			
Fenchlorphos (Ronnel)	0.0738	0.0100	mg/kg wet	0.0851		87	50-140			
Heptachlor	0.0753	0.0050	mg/kg wet	0.0834		90	50-140			
Heptachlor epoxide	0.0764	0.0050	mg/kg wet	0.0834		92	50-140			
Linuron	0.103	0.0400	mg/kg wet	0.0884		116	50-140			
Malathion	0.0898	0.0100	mg/kg wet	0.0826		109	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
LCS (B2J2996-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Methoxychlor	0.0926	0.0050	mg/kg wet	0.0834		111	50-140			
Methyl parathion	0.0853	0.0100	mg/kg wet	0.0823		104	50-140			
Metolachlor	0.0850	0.0100	mg/kg wet	0.0826		103	50-140			
Metribuzin	0.0877	0.0100	mg/kg wet	0.0826		106	50-140			
Parathion	0.0918	0.0100	mg/kg wet	0.0825		111	50-140			
Pentachloronitrobenzene	0.0709	0.0050	mg/kg wet	0.0817		87	50-140			
Permethrin	0.124	0.0050	mg/kg wet	0.0859		144	50-140			SPK
Phorate	0.0771	0.0100	mg/kg wet	0.0826		93	50-140			
Prometon	0.0698	0.0100	mg/kg wet	0.0826		84	50-140			
Prometryne	0.0883	0.0050	mg/kg wet	0.0826		107	50-140			
Simazine	0.0824	0.0100	mg/kg wet	0.0834		99	50-140			
Sulfotep	0.0637	0.0100	mg/kg wet	0.0859		74	50-140			
Tebuthiuron	0.0864	0.0200	mg/kg wet	0.0834		104	50-140			
Temephos (Abate)	1.03	0.0500	mg/kg wet	0.867		119	50-140			
Terbufos	0.0785	0.0100	mg/kg wet	0.0821		96	50-140			
Triallate	0.0739	0.0050	mg/kg wet	0.0834		89	50-140			
Trifluralin	0.0854	0.0100	mg/kg wet	0.0826		103	50-140			
Surrogate: Tributyl Phosphate	*0.0897*		*mg/kg wet*	0.0824		*109*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0761*		*mg/kg wet*	0.0826		*92*	*50-140*			
Strong Acid Leachable Metals, Batch B2J2878										
Blank (B2J2878-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	< 2.0	2.0	mg/kg dry							
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	< 0.20	0.20	mg/kg dry							
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2J2878-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Aluminum	1040	40	mg/kg dry	1000		104	80-120			
Antimony	9.53	0.10	mg/kg dry	10.0		95	80-120			
Arsenic	9.94	0.30	mg/kg dry	10.0		99	80-120			
Barium	10.0	1.0	mg/kg dry	10.0		100	80-120			
Beryllium	10.0	0.10	mg/kg dry	10.0		100	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J2878, Continued										
LCS (B2J2878-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Boron	10.3	2.0	mg/kg dry	10.0		103	80-120			
Cadmium	9.77	0.040	mg/kg dry	10.0		98	80-120			
Chromium	10.3	1.0	mg/kg dry	10.0		103	80-120			
Cobalt	10.3	0.10	mg/kg dry	10.0		103	80-120			
Copper	10.3	0.40	mg/kg dry	10.0		103	80-120			
Iron	1050	20	mg/kg dry	1000		105	80-120			
Lead	9.75	0.20	mg/kg dry	10.0		97	80-120			
Lithium	10.1	0.10	mg/kg dry	10.0		101	80-120			
Manganese	10.4	0.40	mg/kg dry	10.0		104	80-120			
Mercury	1.00	0.040	mg/kg dry	1.00		100	80-120			
Molybdenum	9.95	0.10	mg/kg dry	10.0		100	80-120			
Nickel	10.3	0.60	mg/kg dry	10.0		103	80-120			
Selenium	9.76	0.20	mg/kg dry	10.0		98	80-120			
Silver	10.0	0.10	mg/kg dry	10.0		100	80-120			
Strontium	10.2	0.20	mg/kg dry	10.0		102	80-120			
Thallium	9.63	0.10	mg/kg dry	10.0		96	80-120			
Tin	9.75	0.20	mg/kg dry	10.0		97	80-120			
Tungsten	9.56	0.20	mg/kg dry	10.0		96	80-120			
Uranium	9.78	0.050	mg/kg dry	10.0		98	80-120			
Vanadium	10.4	1.0	mg/kg dry	10.0		104	80-120			
Zinc	10.0	2.0	mg/kg dry	10.0		100	80-120			
Reference (B2J2878-SRM1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Aluminum	10600	40	mg/kg dry	11500		92	70-130			
Antimony	0.59	0.10	mg/kg dry	0.724		82	70-130			
Arsenic	79.0	0.30	mg/kg dry	82.1		96	70-130			
Barium	36.8	1.0	mg/kg dry	40.0		92	70-130			
Beryllium	0.34	0.10	mg/kg dry	0.369		91	70-130			
Chromium	59.6	1.0	mg/kg dry	63.1		94	70-130			
Cobalt	9.94	0.10	mg/kg dry	10.4		96	70-130			
Copper	18.4	0.40	mg/kg dry	19.8		93	70-130			
Iron	19000	20	mg/kg dry	20200		94	70-130			
Lead	15.5	0.20	mg/kg dry	17.3		90	70-130			
Manganese	292	0.40	mg/kg dry	315		93	70-130			
Mercury	0.109	0.040	mg/kg dry	0.110		99	70-130			
Molybdenum	0.57	0.10	mg/kg dry	0.619		92	70-130			
Nickel	30.1	0.60	mg/kg dry	31.7		95	70-130			
Silver	1.44	0.10	mg/kg dry	1.75		82	70-130			
Strontium	18.3	0.20	mg/kg dry	20.3		90	70-130			
Uranium	1.09	0.050	mg/kg dry	1.18		92	70-130			
Vanadium	32.6	1.0	mg/kg dry	33.5		97	70-130			
Zinc	35.4	2.0	mg/kg dry	40.2		88	70-130			
Total Metals, Batch B2J3252										
Blank (B2J3252-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	< 0.000010	0.000010	mg/L							
Blank (B2J3252-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	< 0.000010	0.000010	mg/L							
LCS (B2J3252-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	0.000500	0.000010	mg/L	0.000500		100	80-120			
LCS (B2J3252-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	0.000491	0.000010	mg/L	0.000500		98	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3637										
Blank (B2J3637-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J3637-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	3.94	0.0050	mg/L	4.00		98	80-120			
Antimony, total	0.0396	0.00020	mg/L	0.0400		99	80-120			
Arsenic, total	0.0401	0.00050	mg/L	0.0400		100	80-120			
Barium, total	0.0386	0.0050	mg/L	0.0400		96	80-120			
Beryllium, total	0.0393	0.00010	mg/L	0.0400		98	80-120			
Bismuth, total	0.0385	0.00010	mg/L	0.0400		96	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		102	80-120			
Cadmium, total	0.0392	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	3.86	0.20	mg/L	4.00		97	80-120			
Chromium, total	0.0413	0.00050	mg/L	0.0400		103	80-120			
Cobalt, total	0.0400	0.00010	mg/L	0.0400		100	80-120			
Copper, total	0.0396	0.00040	mg/L	0.0400		99	80-120			
Iron, total	4.01	0.010	mg/L	4.00		100	80-120			
Lead, total	0.0391	0.00020	mg/L	0.0400		98	80-120			
Lithium, total	0.0392	0.00010	mg/L	0.0400		98	80-120			
Magnesium, total	3.89	0.010	mg/L	4.00		97	80-120			
Manganese, total	0.0402	0.00020	mg/L	0.0400		101	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3637, Continued										
LCS (B2J3637-BS1), Continued				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Molybdenum, total	0.0387	0.00010	mg/L	0.0400		97	80-120			
Nickel, total	0.0397	0.00040	mg/L	0.0400		99	80-120			
Phosphorus, total	3.94	0.050	mg/L	4.00		99	80-120			
Potassium, total	4.00	0.10	mg/L	4.00		100	80-120			
Selenium, total	0.0397	0.00050	mg/L	0.0400		99	80-120			
Silicon, total	4.2	1.0	mg/L	4.00		105	80-120			
Silver, total	0.0400	0.000050	mg/L	0.0400		100	80-120			
Sodium, total	4.12	0.10	mg/L	4.00		103	80-120			
Strontium, total	0.0396	0.0010	mg/L	0.0400		99	80-120			
Sulfur, total	41.1	3.0	mg/L	40.0		103	80-120			
Tellurium, total	0.0367	0.00050	mg/L	0.0400		92	80-120			
Thallium, total	0.0390	0.000020	mg/L	0.0400		97	80-120			
Thorium, total	0.0399	0.00010	mg/L	0.0400		100	80-120			
Tin, total	0.0387	0.00020	mg/L	0.0400		97	80-120			
Titanium, total	0.0390	0.0050	mg/L	0.0400		98	80-120			
Tungsten, total	0.0400	0.0002	mg/L	0.0400		100	80-120			
Uranium, total	0.0390	0.000020	mg/L	0.0400		98	80-120			
Vanadium, total	0.0403	0.0050	mg/L	0.0400		101	80-120			
Zinc, total	0.0399	0.0040	mg/L	0.0400		100	80-120			
Zirconium, total	0.0390	0.00010	mg/L	0.0400		97	80-120			
Total Metals, Batch B2J3638										
Blank (B2J3638-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3638, Continued										
Blank (B2J3638-BLK1), Continued				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J3638-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	4.00	0.0050	mg/L	4.00		100	80-120			
Antimony, total	0.0389	0.00020	mg/L	0.0400		97	80-120			
Arsenic, total	0.0411	0.00050	mg/L	0.0400		103	80-120			
Barium, total	0.0372	0.0050	mg/L	0.0400		93	80-120			
Beryllium, total	0.0395	0.00010	mg/L	0.0400		99	80-120			
Bismuth, total	0.0390	0.00010	mg/L	0.0400		98	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		101	80-120			
Cadmium, total	0.0390	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	4.04	0.20	mg/L	4.00		101	80-120			
Chromium, total	0.0404	0.00050	mg/L	0.0400		101	80-120			
Cobalt, total	0.0402	0.00010	mg/L	0.0400		100	80-120			
Copper, total	0.0399	0.00040	mg/L	0.0400		100	80-120			
Iron, total	3.97	0.010	mg/L	4.00		99	80-120			
Lead, total	0.0394	0.00020	mg/L	0.0400		99	80-120			
Lithium, total	0.0390	0.00010	mg/L	0.0400		97	80-120			
Magnesium, total	4.02	0.010	mg/L	4.00		100	80-120			
Manganese, total	0.0404	0.00020	mg/L	0.0400		101	80-120			
Molybdenum, total	0.0390	0.00010	mg/L	0.0400		97	80-120			
Nickel, total	0.0394	0.00040	mg/L	0.0400		98	80-120			
Phosphorus, total	4.08	0.050	mg/L	4.00		102	80-120			
Potassium, total	3.96	0.10	mg/L	4.00		99	80-120			
Selenium, total	0.0389	0.00050	mg/L	0.0400		97	80-120			
Silicon, total	4.1	1.0	mg/L	4.00		103	80-120			
Silver, total	0.0401	0.000050	mg/L	0.0400		100	80-120			
Sodium, total	4.14	0.10	mg/L	4.00		104	80-120			
Strontium, total	0.0393	0.0010	mg/L	0.0400		98	80-120			
Sulfur, total	39.7	3.0	mg/L	40.0		99	80-120			
Tellurium, total	0.0376	0.00050	mg/L	0.0400		94	80-120			
Thallium, total	0.0391	0.000020	mg/L	0.0400		98	80-120			
Thorium, total	0.0400	0.00010	mg/L	0.0400		100	80-120			
Tin, total	0.0392	0.00020	mg/L	0.0400		98	80-120			
Titanium, total	0.0390	0.0050	mg/L	0.0400		97	80-120			
Tungsten, total	0.0397	0.0002	mg/L	0.0400		99	80-120			
Uranium, total	0.0393	0.000020	mg/L	0.0400		98	80-120			
Vanadium, total	0.0411	0.0050	mg/L	0.0400		103	80-120			
Zinc, total	0.0389	0.0040	mg/L	0.0400		97	80-120			
Zirconium, total	0.0387	0.00010	mg/L	0.0400		97	80-120			

QC Qualifiers:

BLK	Analyte concentration in the Method Blank is above the Reporting Limit (RL).
RPD	Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
RQ1	Reporting limits have been raised due to QC bias.
SPK	The recovery of this analyte was outside of established control limits.

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2670
PROJECT	690667	**REPORTED**	2022-11-29 14:14

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2670-01	2022-11-29	Sample ID	N/A	N/A
22J2670-05	2022-11-29	Sample ID	N/A	N/A
22J2670-06	2022-11-29	Sample ID	N/A	N/A
22J2670-07	2022-11-29	Sample ID	N/A	N/A
22J2670-08	2022-11-29	Sample ID	N/A	N/A
22J2670-09	2022-11-29	Sample ID	N/A	N/A
22J2670-10	2022-11-29	Sample ID	N/A	N/A

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2700
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-20 15:57 / 8.1°C
PROJECT	690667	**REPORTED**	2023-01-23 14:36
PROJECT INFO	Flood Disaster Recovery, Merritt	**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: YES

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-1-221020 (22J2700-01) | Matrix: Water | Sampled: 2022-10-20 09:10					
Anions					
Chloride	**10.3**	0.10	mg/L	2022-10-22	
Nitrate (as N)	**0.051**	0.010	mg/L	2022-10-22	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-22	
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-22	
Sulfate	**27.6**	1.0	mg/L	2022-10-22	
BCMOE Aggregate Hydrocarbons					
VHw (6-10)	< 100	100	µg/L	2022-10-27	
VPHw	< 100	100	µg/L	N/A	
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*104*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**138**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	**0.0507**	0.0100	mg/L	N/A	
Nitrogen, Total	**0.396**	0.0500	mg/L	N/A	
Chlorinated Phenols					
2-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
3 & 4-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L	2022-10-26	
2,3-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,6-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,4-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
3,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Pentachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Surrogate: 2,4-Dibromophenol	*70*	*60-130*	%	*2022-10-26*	
Surrogate: 2,4,6-Tribromophenol	*70*	*60-130*	%	*2022-10-26*	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-1-221020 (22J2700-01) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Dissolved Metals, Continued					
Arsenic, dissolved	**0.00089**	0.00050	mg/L	2022-10-31	
Barium, dissolved	**0.0430**	0.0050	mg/L	2022-10-31	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, dissolved	**35.1**	0.20	mg/L	2022-10-31	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, dissolved	**0.00132**	0.00040	mg/L	2022-10-31	
Iron, dissolved	**0.023**	0.010	mg/L	2022-10-31	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, dissolved	**0.00144**	0.00010	mg/L	2022-10-31	
Magnesium, dissolved	**12.2**	0.010	mg/L	2022-10-31	
Manganese, dissolved	**0.0335**	0.00020	mg/L	2022-10-31	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, dissolved	**0.00156**	0.00010	mg/L	2022-10-31	
Nickel, dissolved	**0.00067**	0.00040	mg/L	2022-10-31	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-31	
Potassium, dissolved	**2.67**	0.10	mg/L	2022-10-31	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, dissolved	**2.2**	1.0	mg/L	2022-10-31	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, dissolved	**12.3**	0.10	mg/L	2022-10-31	
Strontium, dissolved	**0.203**	0.0010	mg/L	2022-10-31	
Sulfur, dissolved	**8.2**	3.0	mg/L	2022-10-31	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-31	
Uranium, dissolved	**0.000578**	0.000020	mg/L	2022-10-31	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
General Parameters					
Carbon, Total Organic	**7.16**	0.50	mg/L	2022-10-24	
Carbon, Dissolved Organic	**6.97**	0.50	mg/L	2022-10-24	
Nitrogen, Total Kjeldahl	**0.345**	0.050	mg/L	2022-10-27	
pH	**7.90**	0.10	pH units	2022-10-26	HT2
Phosphorus, Total (as P)	**0.0186**	0.0050	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-1-221020 (22J2700-01) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
General Parameters, Continued					
Solids, Total Dissolved	**162**	15	mg/L	2022-10-27	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-27	
Turbidity	**0.60**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**722**	1	MPN/100 mL	2022-10-20	
Coliforms, Fecal (Q-Tray)	**38**	1	MPN/100 mL	2022-10-20	
E. coli (Q-Tray)	**26**	1	MPN/100 mL	2022-10-20	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-04	
Aldrin	< 0.006	0.006	µg/L	2022-11-04	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-04	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-04	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-04	
beta-BHC	< 0.050	0.050	µg/L	2022-11-04	
delta-BHC	< 0.050	0.050	µg/L	2022-11-04	
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-04	
Bromacil	< 0.100	0.100	µg/L	2022-11-04	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-04	
Butachlor	< 0.020	0.020	µg/L	2022-11-04	
Captan	< 0.100	0.100	µg/L	2022-11-04	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-04	
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-04	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-04	
Cyanazine	< 0.100	0.100	µg/L	2022-11-04	
DDT, Total	< 0.010	0.010	µg/L	2022-11-04	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-04	
Diazinon	< 0.020	0.020	µg/L	2022-11-04	
Dichlorvos	< 0.100	0.100	µg/L	2022-11-04	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-04	
Dieldrin	< 0.010	0.010	µg/L	2022-11-04	
Dimethoate	< 0.200	0.200	µg/L	2022-11-04	
Disulfoton	< 0.100	0.100	µg/L	2022-11-04	
Diuron	< 0.200	0.200	µg/L	2022-11-04	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-04	
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-04	
Endrin	< 0.020	0.020	µg/L	2022-11-04	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-04	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-04	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-04	
Heptachlor	< 0.010	0.010	µg/L	2022-11-04	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-04	
Linuron	< 0.050	0.050	µg/L	2022-11-04	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-1-221020 (22J2700-01) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Malathion	< 0.100	0.100	µg/L	2022-11-04	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-04	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-04	
Metolachlor	< 0.100	0.100	µg/L	2022-11-04	
Metribuzin	< 0.200	0.200	µg/L	2022-11-04	
Parathion	< 0.100	0.100	µg/L	2022-11-04	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-04	
Permethrin	< 0.010	0.010	µg/L	2022-11-04	
Phorate	< 0.100	0.100	µg/L	2022-11-04	
Prometon	< 0.300	0.300	µg/L	2022-11-04	
Prometryne	< 0.100	0.100	µg/L	2022-11-04	
Simazine	< 0.200	0.200	µg/L	2022-11-04	
Sulfotep	< 0.100	0.100	µg/L	2022-11-04	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-04	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-04	
Terbufos	< 0.100	0.100	µg/L	2022-11-04	
Triallate	< 0.100	0.100	µg/L	2022-11-04	
Trifluralin	< 0.200	0.200	µg/L	2022-11-04	
Surrogate: Tributyl Phosphate	*71*	*50-140*	%	*2022-11-04*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*73*	*50-140*	%	*2022-11-04*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-27	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-27	
Acridine	< 0.050	0.050	µg/L	2022-10-27	
Anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Chrysene	< 0.050	0.050	µg/L	2022-10-27	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-27	
Fluorene	< 0.050	0.050	µg/L	2022-10-27	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-27	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Naphthalene	< 0.200	0.200	µg/L	2022-10-27	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-27	
Pyrene	< 0.020	0.020	µg/L	2022-10-27	
Quinoline	< 0.050	0.050	µg/L	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-1-221020 (22J2700-01) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Surrogate: Acridine-d9	*73*	*50-140*	%	*2022-10-27*	
Surrogate: Naphthalene-d8	*82*	*50-140*	%	*2022-10-27*	
Surrogate: Perylene-d12	*123*	*50-140*	%	*2022-10-27*	
Total Metals					
Aluminum, total	**0.0692**	0.0050	mg/L	2022-10-31	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, total	**0.00091**	0.00050	mg/L	2022-10-31	
Barium, total	**0.0401**	0.0050	mg/L	2022-10-31	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, total	**39.0**	0.20	mg/L	2022-10-31	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, total	**0.00011**	0.00010	mg/L	2022-10-31	
Copper, total	**0.00158**	0.00040	mg/L	2022-10-31	
Iron, total	**0.101**	0.010	mg/L	2022-10-31	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, total	**0.00134**	0.00010	mg/L	2022-10-31	
Magnesium, total	**11.8**	0.010	mg/L	2022-10-31	
Manganese, total	**0.0405**	0.00020	mg/L	2022-10-31	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, total	**0.00169**	0.00010	mg/L	2022-10-31	
Nickel, total	**0.00100**	0.00040	mg/L	2022-10-31	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-31	
Potassium, total	**2.85**	0.10	mg/L	2022-10-31	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, total	**2.4**	1.0	mg/L	2022-10-31	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, total	**11.2**	0.10	mg/L	2022-10-31	
Strontium, total	**0.198**	0.0010	mg/L	2022-10-31	
Sulfur, total	**8.5**	3.0	mg/L	2022-10-31	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-31	
Uranium, total	**0.000648**	0.000020	mg/L	2022-10-31	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, total	**0.00011**	0.00010	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-1-221020 (22J2700-01) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Volatile Organic Compounds (VOC)					
Benzene	< 0.5	0.5	µg/L	2022-10-27	
Bromodichloromethane	< 1.0	1.0	µg/L	2022-10-27	
Bromoform	< 1.0	1.0	µg/L	2022-10-27	
Carbon tetrachloride	< 0.5	0.5	µg/L	2022-10-27	
Chlorobenzene	< 1.0	1.0	µg/L	2022-10-27	
Chloroethane	< 2.0	2.0	µg/L	2022-10-27	
Chloroform	< 1.0	1.0	µg/L	2022-10-27	
Dibromochloromethane	< 1.0	1.0	µg/L	2022-10-27	
1,2-Dibromoethane	< 0.3	0.3	µg/L	2022-10-27	
Dibromomethane	< 1.0	1.0	µg/L	2022-10-27	
1,2-Dichlorobenzene	< 0.5	0.5	µg/L	2022-10-27	
1,3-Dichlorobenzene	< 1.0	1.0	µg/L	2022-10-27	
1,4-Dichlorobenzene	< 1.0	1.0	µg/L	2022-10-27	
1,1-Dichloroethane	< 1.0	1.0	µg/L	2022-10-27	
1,2-Dichloroethane	< 1.0	1.0	µg/L	2022-10-27	
1,1-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
Dichloromethane	< 3.0	3.0	µg/L	2022-10-27	
1,2-Dichloropropane	< 1.0	1.0	µg/L	2022-10-27	
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L	2022-10-27	
Ethylbenzene	< 1.0	1.0	µg/L	2022-10-27	
Methyl tert-butyl ether	< 1.0	1.0	µg/L	2022-10-27	
Styrene	< 1.0	1.0	µg/L	2022-10-27	
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L	2022-10-27	
Tetrachloroethylene	< 1.0	1.0	µg/L	2022-10-27	
Toluene	< 1.0	1.0	µg/L	2022-10-27	
1,1,1-Trichloroethane	< 1.0	1.0	µg/L	2022-10-27	
1,1,2-Trichloroethane	< 1.0	1.0	µg/L	2022-10-27	
Trichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
Trichlorofluoromethane	< 1.0	1.0	µg/L	2022-10-27	
Vinyl chloride	< 1.0	1.0	µg/L	2022-10-27	
Xylenes (total)	< 2.0	2.0	µg/L	2022-10-27	
Surrogate: Toluene-d8	*85*	*70-130*	%	*2022-10-27*	
Surrogate: 4-Bromofluorobenzene	*92*	*70-130*	%	*2022-10-27*	
Surrogate: 1,4-Dichlorobenzene-d4	*83*	*70-130*	%	*2022-10-27*	
SW22-EH1-1-221019 (22J2700-02) | Matrix: Water | Sampled: 2022-10-19 16:38					
Anions					
Chloride	**7.49**	0.10	mg/L	2022-10-22	
Nitrate (as N)	**0.012**	0.010	mg/L	2022-10-22	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-22	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-EH1-1-221019 (22J2700-02) | Matrix: Water | Sampled: 2022-10-19 16:38, Continued					
Anions, Continued					
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-22	
Sulfate	**25.1**	1.0	mg/L	2022-10-22	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*102*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**130**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	**0.0125**	0.0100	mg/L	N/A	
Nitrogen, Total	**0.428**	0.0500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, dissolved	**0.00103**	0.00050	mg/L	2022-10-31	
Barium, dissolved	**0.0327**	0.0050	mg/L	2022-10-31	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, dissolved	**31.9**	0.20	mg/L	2022-10-31	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, dissolved	**0.00140**	0.00040	mg/L	2022-10-31	
Iron, dissolved	**0.023**	0.010	mg/L	2022-10-31	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, dissolved	**0.00167**	0.00010	mg/L	2022-10-31	
Magnesium, dissolved	**12.1**	0.010	mg/L	2022-10-31	
Manganese, dissolved	**0.0329**	0.00020	mg/L	2022-10-31	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, dissolved	**0.00167**	0.00010	mg/L	2022-10-31	
Nickel, dissolved	**0.00077**	0.00040	mg/L	2022-10-31	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-31	
Potassium, dissolved	**2.85**	0.10	mg/L	2022-10-31	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, dissolved	**1.7**	1.0	mg/L	2022-10-31	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, dissolved	**11.5**	0.10	mg/L	2022-10-31	
Strontium, dissolved	**0.187**	0.0010	mg/L	2022-10-31	
Sulfur, dissolved	**7.8**	3.0	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-EH1-1-221019 (22J2700-02) | Matrix: Water | Sampled: 2022-10-19 16:38, Continued					
Dissolved Metals, Continued					
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-31	
Uranium, dissolved	**0.000553**	0.000020	mg/L	2022-10-31	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
General Parameters					
Carbon, Total Organic	**8.31**	0.50	mg/L	2022-10-24	
Carbon, Dissolved Organic	**7.57**	0.50	mg/L	2022-10-24	
Nitrogen, Total Kjeldahl	**0.416**	0.050	mg/L	2022-10-27	
pH	**8.06**	0.10	pH units	2022-10-26	HT2
Phosphorus, Total (as P)	**0.0209**	0.0050	mg/L	2022-10-26	
Solids, Total Dissolved	**193**	15	mg/L	2022-10-27	
Solids, Total Suspended	**2.2**	2.0	mg/L	2022-10-27	
Turbidity	**0.87**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**921**	1	MPN/100 mL	2022-10-20	
Coliforms, Fecal (Q-Tray)	**49**	1	MPN/100 mL	2022-10-20	
E. coli (Q-Tray)	**28**	1	MPN/100 mL	2022-10-20	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-27	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-27	
Acridine	< 0.050	0.050	µg/L	2022-10-27	
Anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Chrysene	< 0.050	0.050	µg/L	2022-10-27	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-27	
Fluorene	< 0.050	0.050	µg/L	2022-10-27	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-27	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-EH1-1-221019 (22J2700-02) | Matrix: Water | Sampled: 2022-10-19 16:38, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Naphthalene	< 0.200	0.200	µg/L	2022-10-27	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-27	
Pyrene	< 0.020	0.020	µg/L	2022-10-27	
Quinoline	< 0.050	0.050	µg/L	2022-10-27	
Surrogate: Acridine-d9	*71*	*50-140*	%	*2022-10-27*	
Surrogate: Naphthalene-d8	*82*	*50-140*	%	*2022-10-27*	
Surrogate: Perylene-d12	*120*	*50-140*	%	*2022-10-27*	
Total Metals					
Aluminum, total	**0.0827**	0.0050	mg/L	2022-10-31	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, total	**0.00110**	0.00050	mg/L	2022-10-31	
Barium, total	**0.0301**	0.0050	mg/L	2022-10-31	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, total	**34.2**	0.20	mg/L	2022-10-31	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, total	**0.00010**	0.00010	mg/L	2022-10-31	
Copper, total	**0.00160**	0.00040	mg/L	2022-10-31	
Iron, total	**0.107**	0.010	mg/L	2022-10-31	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, total	**0.00152**	0.00010	mg/L	2022-10-31	
Magnesium, total	**11.6**	0.010	mg/L	2022-10-31	
Manganese, total	**0.0385**	0.00020	mg/L	2022-10-31	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, total	**0.00173**	0.00010	mg/L	2022-10-31	
Nickel, total	**0.00105**	0.00040	mg/L	2022-10-31	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-31	
Potassium, total	**3.01**	0.10	mg/L	2022-10-31	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, total	**1.9**	1.0	mg/L	2022-10-31	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, total	**10.4**	0.10	mg/L	2022-10-31	
Strontium, total	**0.178**	0.0010	mg/L	2022-10-31	
Sulfur, total	**7.8**	3.0	mg/L	2022-10-31	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-EH1-1-221019 (22J2700-02) | Matrix: Water | Sampled: 2022-10-19 16:38, Continued					
Total Metals, Continued					
Uranium, total	**0.000602**	0.000020	mg/L	2022-10-31	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, total	**0.00014**	0.00010	mg/L	2022-10-31	
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10					
Anions					
Chloride	**10.1**	0.10	mg/L	2022-10-23	
Nitrate (as N)	**0.050**	0.010	mg/L	2022-10-23	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-23	
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-23	
Sulfate	**27.2**	1.0	mg/L	2022-10-23	
BCMOE Aggregate Hydrocarbons					
VHw (6-10)	< 100	100	µg/L	2022-10-27	
VPHw	< 100	100	µg/L	N/A	
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*105*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**137**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	**0.0505**	0.0100	mg/L	N/A	
Nitrogen, Total	**0.396**	0.0500	mg/L	N/A	
Chlorinated Phenols					
2-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
3 & 4-Chlorophenol	< 0.10	0.10	µg/L	2022-10-26	
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L	2022-10-26	
2,3-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,6-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,4-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
3,5-Dichlorophenol	< 0.20	0.20	µg/L	2022-10-26	
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
3,4,5-Trichlorophenol	< 0.50	0.50	µg/L	2022-10-26	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Chlorinated Phenols, Continued					
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Pentachlorophenol	< 0.50	0.50	µg/L	2022-10-26	
Surrogate: 2,4-Dibromophenol	*63*	*60-130*	%	*2022-10-26*	
Surrogate: 2,4,6-Tribromophenol	*68*	*60-130*	%	*2022-10-26*	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, dissolved	**0.00089**	0.00050	mg/L	2022-10-31	
Barium, dissolved	**0.0416**	0.0050	mg/L	2022-10-31	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, dissolved	**34.9**	0.20	mg/L	2022-10-31	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, dissolved	**0.00137**	0.00040	mg/L	2022-10-31	
Iron, dissolved	**0.023**	0.010	mg/L	2022-10-31	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, dissolved	**0.00147**	0.00010	mg/L	2022-10-31	
Magnesium, dissolved	**12.2**	0.010	mg/L	2022-10-31	
Manganese, dissolved	**0.0337**	0.00020	mg/L	2022-10-31	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, dissolved	**0.00155**	0.00010	mg/L	2022-10-31	
Nickel, dissolved	**0.00075**	0.00040	mg/L	2022-10-31	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-31	
Potassium, dissolved	**2.69**	0.10	mg/L	2022-10-31	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, dissolved	**2.2**	1.0	mg/L	2022-10-31	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, dissolved	**12.4**	0.10	mg/L	2022-10-31	
Strontium, dissolved	**0.206**	0.0010	mg/L	2022-10-31	
Sulfur, dissolved	**8.2**	3.0	mg/L	2022-10-31	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-31	
Uranium, dissolved	**0.000573**	0.000020	mg/L	2022-10-31	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Dissolved Metals, Continued					
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
General Parameters					
Carbon, Total Organic	**7.56**	0.50	mg/L	2022-10-24	
Carbon, Dissolved Organic	**6.58**	0.50	mg/L	2022-10-24	
Nitrogen, Total Kjeldahl	**0.346**	0.050	mg/L	2022-10-27	
pH	**7.99**	0.10	pH units	2022-10-26	HT2
Phosphorus, Total (as P)	**0.0182**	0.0050	mg/L	2022-10-26	
Solids, Total Dissolved	**170**	15	mg/L	2022-10-27	
Solids, Total Suspended	**2.0**	2.0	mg/L	2022-10-27	
Turbidity	**1.42**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**727**	1	MPN/100 mL	2022-10-20	
Coliforms, Fecal (Q-Tray)	**23**	1	MPN/100 mL	2022-10-20	
E. coli (Q-Tray)	**23**	1	MPN/100 mL	2022-10-20	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-01	
Aldrin	< 0.006	0.006	µg/L	2022-11-01	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-01	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-01	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-01	
beta-BHC	< 0.050	0.050	µg/L	2022-11-01	
delta-BHC	< 0.050	0.050	µg/L	2022-11-01	
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-01	
Bromacil	< 0.100	0.100	µg/L	2022-11-01	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-01	
Butachlor	< 0.020	0.020	µg/L	2022-11-01	
Captan	< 0.100	0.100	µg/L	2022-11-01	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-01	
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-01	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-01	
Cyanazine	< 0.100	0.100	µg/L	2022-11-01	
DDT, Total	< 0.010	0.010	µg/L	2022-11-01	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-01	
Diazinon	< 0.020	0.020	µg/L	2022-11-01	
Dichlorvos	< 0.100	0.100	µg/L	2022-11-01	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-01	
Dieldrin	< 0.010	0.010	µg/L	2022-11-01	
Dimethoate	< 0.200	0.200	µg/L	2022-11-01	
Disulfoton	< 0.100	0.100	µg/L	2022-11-01	
Diuron	< 0.200	0.200	µg/L	2022-11-01	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-01	
Endrin	< 0.020	0.020	µg/L	2022-11-01	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-01	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-01	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-01	
Heptachlor	< 0.010	0.010	µg/L	2022-11-01	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-01	
Linuron	< 0.050	0.050	µg/L	2022-11-01	
Malathion	< 0.100	0.100	µg/L	2022-11-01	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-01	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-01	
Metolachlor	< 0.100	0.100	µg/L	2022-11-01	
Metribuzin	< 0.200	0.200	µg/L	2022-11-01	
Parathion	< 0.100	0.100	µg/L	2022-11-01	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-01	
Permethrin	< 0.010	0.010	µg/L	2022-11-01	
Phorate	< 0.100	0.100	µg/L	2022-11-01	
Prometon	< 1.32	0.300	µg/L	2022-11-01	RQ1
Prometryne	< 0.100	0.100	µg/L	2022-11-01	
Simazine	< 0.200	0.200	µg/L	2022-11-01	
Sulfotep	< 0.100	0.100	µg/L	2022-11-01	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-01	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-01	
Terbufos	< 0.100	0.100	µg/L	2022-11-01	
Triallate	< 0.100	0.100	µg/L	2022-11-01	
Trifluralin	< 0.200	0.200	µg/L	2022-11-01	
Surrogate: Tributyl Phosphate	*89*	*50-140*	%	*2022-11-01*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*72*	*50-140*	%	*2022-11-01*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-27	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-27	
Acridine	< 0.050	0.050	µg/L	2022-10-27	
Anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Chrysene	< 0.050	0.050	µg/L	2022-10-27	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Fluorene	< 0.050	0.050	µg/L	2022-10-27	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-27	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Naphthalene	< 0.200	0.200	µg/L	2022-10-27	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-27	
Pyrene	< 0.020	0.020	µg/L	2022-10-27	
Quinoline	< 0.050	0.050	µg/L	2022-10-27	
Surrogate: Acridine-d9	*77*	*50-140*	%	*2022-10-27*	
Surrogate: Naphthalene-d8	*88*	*50-140*	%	*2022-10-27*	
Surrogate: Perylene-d12	*130*	*50-140*	%	*2022-10-27*	
Total Metals					
Aluminum, total	**0.0716**	0.0050	mg/L	2022-10-31	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, total	**0.00092**	0.00050	mg/L	2022-10-31	
Barium, total	**0.0407**	0.0050	mg/L	2022-10-31	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, total	**35.9**	0.20	mg/L	2022-10-31	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, total	**0.00010**	0.00010	mg/L	2022-10-31	
Copper, total	**0.00157**	0.00040	mg/L	2022-10-31	
Iron, total	**0.103**	0.010	mg/L	2022-10-31	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, total	**0.00127**	0.00010	mg/L	2022-10-31	
Magnesium, total	**10.9**	0.010	mg/L	2022-10-31	
Manganese, total	**0.0402**	0.00020	mg/L	2022-10-31	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-27	
Molybdenum, total	**0.00157**	0.00010	mg/L	2022-10-31	
Nickel, total	**0.00086**	0.00040	mg/L	2022-10-31	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-31	
Potassium, total	**2.80**	0.10	mg/L	2022-10-31	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, total	**2.5**	1.0	mg/L	2022-10-31	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, total	**10.9**	0.10	mg/L	2022-10-31	
Strontium, total	**0.200**	0.0010	mg/L	2022-10-31	
Sulfur, total	**9.0**	3.0	mg/L	2022-10-31	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Total Metals, Continued					
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-31	
Uranium, total	**0.000604**	0.000020	mg/L	2022-10-31	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, total	**0.00012**	0.00010	mg/L	2022-10-31	
Volatile Organic Compounds (VOC)					
Benzene	< 0.5	0.5	µg/L	2022-10-27	
Bromodichloromethane	< 1.0	1.0	µg/L	2022-10-27	
Bromoform	< 1.0	1.0	µg/L	2022-10-27	
Carbon tetrachloride	< 0.5	0.5	µg/L	2022-10-27	
Chlorobenzene	< 1.0	1.0	µg/L	2022-10-27	
Chloroethane	< 2.0	2.0	µg/L	2022-10-27	
Chloroform	< 1.0	1.0	µg/L	2022-10-27	
Dibromochloromethane	< 1.0	1.0	µg/L	2022-10-27	
1,2-Dibromoethane	< 0.3	0.3	µg/L	2022-10-27	
Dibromomethane	< 1.0	1.0	µg/L	2022-10-27	
1,2-Dichlorobenzene	< 0.5	0.5	µg/L	2022-10-27	
1,3-Dichlorobenzene	< 1.0	1.0	µg/L	2022-10-27	
1,4-Dichlorobenzene	< 1.0	1.0	µg/L	2022-10-27	
1,1-Dichloroethane	< 1.0	1.0	µg/L	2022-10-27	
1,2-Dichloroethane	< 1.0	1.0	µg/L	2022-10-27	
1,1-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
Dichloromethane	< 3.0	3.0	µg/L	2022-10-27	
1,2-Dichloropropane	< 1.0	1.0	µg/L	2022-10-27	
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L	2022-10-27	
Ethylbenzene	< 1.0	1.0	µg/L	2022-10-27	
Methyl tert-butyl ether	< 1.0	1.0	µg/L	2022-10-27	
Styrene	< 1.0	1.0	µg/L	2022-10-27	
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L	2022-10-27	
Tetrachloroethylene	< 1.0	1.0	µg/L	2022-10-27	
Toluene	< 1.0	1.0	µg/L	2022-10-27	
1,1,1-Trichloroethane	< 1.0	1.0	µg/L	2022-10-27	
1,1,2-Trichloroethane	< 1.0	1.0	µg/L	2022-10-27	
Trichloroethylene	< 1.0	1.0	µg/L	2022-10-27	
Trichlorofluoromethane	< 1.0	1.0	µg/L	2022-10-27	
Vinyl chloride	< 1.0	1.0	µg/L	2022-10-27	
Xylenes (total)	< 2.0	2.0	µg/L	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-A-221019 (22J2700-03) | Matrix: Water | Sampled: 2022-10-20 09:10, Continued					
Volatile Organic Compounds (VOC), Continued					
Surrogate: Toluene-d8	*87*	*70-130*	%	*2022-10-27*	
Surrogate: 4-Bromofluorobenzene	*95*	*70-130*	%	*2022-10-27*	
Surrogate: 1,4-Dichlorobenzene-d4	*84*	*70-130*	%	*2022-10-27*	
SW22-CC1-2-221020 (22J2700-04) | Matrix: Water | Sampled: 2022-10-20 10:33					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*106*	*60-140*	%	*2022-10-28*	
General Parameters					
Carbon, Total Organic	**7.73**	0.50	mg/L	2022-10-24	
Carbon, Dissolved Organic	**6.70**	0.50	mg/L	2022-10-24	
pH	**8.01**	0.10	pH units	2022-10-26	HT2
Solids, Total Dissolved	**217**	15	mg/L	2022-10-27	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-27	
Turbidity	**1.31**	0.10	NTU	2023-01-19	HT1
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-27	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-27	
Acridine	< 0.050	0.050	µg/L	2022-10-27	
Anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-27	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-27	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-27	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Chrysene	< 0.050	0.050	µg/L	2022-10-27	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-27	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-27	
Fluorene	< 0.050	0.050	µg/L	2022-10-27	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-27	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-27	
Naphthalene	< 0.200	0.200	µg/L	2022-10-27	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-27	
Pyrene	< 0.020	0.020	µg/L	2022-10-27	
Quinoline	< 0.050	0.050	µg/L	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-2-221020 (22J2700-04) | Matrix: Water | Sampled: 2022-10-20 10:33, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Surrogate: Acridine-d9	*75*	*50-140*	%	*2022-10-27*	
Surrogate: Naphthalene-d8	*87*	*50-140*	%	*2022-10-27*	
Surrogate: Perylene-d12	*127*	*50-140*	%	*2022-10-27*	
SW22-CC2-1-221019 (22J2700-05) | Matrix: Water | Sampled: 2022-10-19 14:51					
Calculated Parameters					
Hardness, Total (as CaCO3)	**81.8**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Barium, dissolved	**0.0475**	0.0050	mg/L	2022-10-31	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, dissolved	**26.3**	0.20	mg/L	2022-10-31	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, dissolved	< 0.00040	0.00040	mg/L	2022-10-31	
Iron, dissolved	**0.011**	0.010	mg/L	2022-10-31	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, dissolved	**0.00033**	0.00010	mg/L	2022-10-31	
Magnesium, dissolved	**3.89**	0.010	mg/L	2022-10-31	
Manganese, dissolved	**0.00966**	0.00020	mg/L	2022-10-31	
Mercury, dissolved	< 0.000040	0.000040	mg/L	2022-10-31	HG1
Molybdenum, dissolved	**0.00076**	0.00010	mg/L	2022-10-31	
Nickel, dissolved	< 0.00040	0.00040	mg/L	2022-10-31	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-31	
Potassium, dissolved	**0.91**	0.10	mg/L	2022-10-31	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, dissolved	**4.3**	1.0	mg/L	2022-10-31	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, dissolved	**6.01**	0.10	mg/L	2022-10-31	
Strontium, dissolved	**0.169**	0.0010	mg/L	2022-10-31	
Sulfur, dissolved	< 3.0	3.0	mg/L	2022-10-31	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC2-1-221019 (22J2700-05) | Matrix: Water | Sampled: 2022-10-19 14:51, Continued					
Dissolved Metals, Continued					
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-31	
Uranium, dissolved	**0.000248**	0.000020	mg/L	2022-10-31	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-31	
General Parameters					
Carbon, Total Organic	**1.41**	0.50	mg/L	2022-10-24	
Carbon, Dissolved Organic	**1.10**	0.50	mg/L	2022-10-24	
pH	**7.62**	0.10	pH units	2022-10-26	HT2
Solids, Total Dissolved	**144**	15	mg/L	2022-10-27	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-27	
Turbidity	**0.19**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**250**	1	MPN/100 mL	2022-10-20	
Coliforms, Fecal (Q-Tray)	**2**	1	MPN/100 mL	2022-10-20	
E. coli (Q-Tray)	< 1	1	MPN/100 mL	2022-10-20	
Total Metals					
Aluminum, total	**0.0098**	0.0050	mg/L	2022-10-31	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-31	
Arsenic, total	< 0.00050	0.00050	mg/L	2022-10-31	
Barium, total	**0.0416**	0.0050	mg/L	2022-10-31	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-31	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-31	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-31	
Calcium, total	**28.3**	0.20	mg/L	2022-10-31	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-31	
Copper, total	< 0.00040	0.00040	mg/L	2022-10-31	
Iron, total	**0.024**	0.010	mg/L	2022-10-31	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-31	
Lithium, total	**0.00032**	0.00010	mg/L	2022-10-31	
Magnesium, total	**3.55**	0.010	mg/L	2022-10-31	
Manganese, total	**0.0105**	0.00020	mg/L	2022-10-31	
Mercury, total	< 0.000040	0.000040	mg/L	2022-10-31	HG1
Molybdenum, total	**0.00076**	0.00010	mg/L	2022-10-31	
Nickel, total	< 0.00040	0.00040	mg/L	2022-10-31	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-31	
Potassium, total	**0.95**	0.10	mg/L	2022-10-31	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Silicon, total	**4.1**	1.0	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC2-1-221019 (22J2700-05) | Matrix: Water | Sampled: 2022-10-19 14:51, Continued					
Total Metals, Continued					
Silver, total	< 0.000050	0.000050	mg/L	2022-10-31	
Sodium, total	**5.71**	0.10	mg/L	2022-10-31	
Strontium, total	**0.161**	0.0010	mg/L	2022-10-31	
Sulfur, total	< 3.0	3.0	mg/L	2022-10-31	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-31	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-31	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-31	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-31	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-31	
Uranium, total	**0.000260**	0.000020	mg/L	2022-10-31	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-31	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-31	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-31	

Sample Qualifiers:

HG1	Sample bottle and preservation submitted is not suitable for Mercury analysis and analyte stability may be affected.
HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
RQ1	Reporting limits have been raised due to QC bias.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2700
REPORTED 2023-01-23 14:36

Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Carbon, Dissolved Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Coliforms, Fecal in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Coliforms, Total in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2021)	Block Digestion and Flow Injection Analysis	✓	Kelowna
Pesticides in Water	EPA 3510C* / EPA 8270D*	Liquid-Liquid DCM Extraction (B/N) / GC-MSD (SIM)	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Phenols, Chlorinated in Water	EPA 3510C* / EPA 8270D	Liquid-Liquid DCM Extraction (Acidic) / GC-MSD (SIM)	✓	Richmond
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	✓	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	✓	Richmond
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Solids, Total Suspended in Water	Solids in Water, Filtered / SM 2540 D* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna
VH in Water	EPA 5030B / BCMOE VHw	Purge&Trap / Gas Chromatography (GC-FID)	✓	Richmond
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond
VPHw in Water	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)		N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
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Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B2J2409										
Blank (B2J2409-BLK1)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 1.0	1.0	mg/L							
Blank (B2J2409-BLK2)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 1.0	1.0	mg/L							
LCS (B2J2409-BS1)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Chloride	16.2	0.10	mg/L	16.0		101	90-110			
Nitrate (as N)	4.02	0.010	mg/L	4.00		100	90-110			
Nitrite (as N)	1.84	0.010	mg/L	2.00		92	85-115			
Phosphate (as P)	1.06	0.0050	mg/L	1.00		106	80-120			
Sulfate	15.9	1.0	mg/L	16.0		100	90-110			
LCS (B2J2409-BS2)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Chloride	15.8	0.10	mg/L	16.0		99	90-110			
Nitrate (as N)	4.13	0.010	mg/L	4.00		103	90-110			
Nitrite (as N)	1.96	0.010	mg/L	2.00		98	85-115			
Phosphate (as P)	1.07	0.0050	mg/L	1.00		107	80-120			
Sulfate	15.7	1.0	mg/L	16.0		98	90-110			
BCMOE Aggregate Hydrocarbons, Batch B2J3189										
Blank (B2J3189-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2030*		*µg/L*	2200		*92*	*60-140*			
Blank (B2J3189-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2700
PROJECT 690667 **REPORTED** 2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J3189, Continued										
Blank (B2J3189-BLK2), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2120*		*µg/L*	2200		*97*	*60-140*			
LCS (B2J3189-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	15000	250	µg/L	15400		97	70-130			
EPHw19-32	21000	250	µg/L	22100		95	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1580*		*µg/L*	2200		*72*	*60-140*			
LCS (B2J3189-BS4)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	17100	250	µg/L	15400		111	70-130			
EPHw19-32	24200	250	µg/L	22100		109	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1610*		*µg/L*	2200		*73*	*60-140*			
LCS Dup (B2J3189-BSD2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	16900	250	µg/L	15400		110	70-130	12	20	
EPHw19-32	23600	250	µg/L	22100		107	70-130	12	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1670*		*µg/L*	2200		*76*	*60-140*			
LCS Dup (B2J3189-BSD4)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	16800	250	µg/L	13300		127	70-130	2	20	
EPHw19-32	23500	250	µg/L	19000		124	70-130	3	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1820*		*µg/L*	2200		*83*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B2J3197										
Blank (B2J3197-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
VHw (6-10)	< 100	100	µg/L							
Blank (B2J3197-BLK2)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
VHw (6-10)	< 100	100	µg/L							
LCS (B2J3197-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
VHw (6-10)	1830	100	µg/L	2150		85	70-130			
Chlorinated Phenols, Batch B2J2994										
Blank (B2J2994-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
2-Chlorophenol	< 0.10	0.10	µg/L							
3 & 4-Chlorophenol	< 0.10	0.10	µg/L							
4-Chloro-3-Methylphenol	< 0.50	0.50	µg/L							
2,3-Dichlorophenol	< 0.20	0.20	µg/L							
2,4 & 2,5-Dichlorophenol	< 0.20	0.20	µg/L							
2,6-Dichlorophenol	< 0.20	0.20	µg/L							
3,4-Dichlorophenol	< 0.20	0.20	µg/L							
3,5-Dichlorophenol	< 0.20	0.20	µg/L							
2,3,4-Trichlorophenol	< 0.50	0.50	µg/L							
2,3,5-Trichlorophenol	< 0.50	0.50	µg/L							
2,3,6-Trichlorophenol	< 0.50	0.50	µg/L							
2,4,5-Trichlorophenol	< 0.50	0.50	µg/L							
2,4,6-Trichlorophenol	< 0.50	0.50	µg/L							
3,4,5-Trichlorophenol	< 0.50	0.50	µg/L							
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.50	0.50	µg/L							
2,3,4,6-Tetrachlorophenol	< 0.50	0.50	µg/L							
Pentachlorophenol	< 0.50	0.50	µg/L							
Surrogate: 2,4-Dibromophenol	*1.25*		*µg/L*	2.00		*63*	*60-130*			
Surrogate: 2,4,6-Tribromophenol	*1.30*		*µg/L*	2.00		*65*	*60-130*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Chlorinated Phenols, Batch B2J2994, Continued										
LCS (B2J2994-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
2-Chlorophenol	6.40	0.10	µg/L	10.0		64	60-130			
3 & 4-Chlorophenol	12.7	0.10	µg/L	19.8		65	60-130			
4-Chloro-3-Methylphenol	7.89	0.50	µg/L	10.2		77	60-130			
2,3-Dichlorophenol	6.82	0.20	µg/L	10.1		68	60-130			
2,4 & 2,5-Dichlorophenol	16.6	0.20	µg/L	20.2		82	60-130			
2,6-Dichlorophenol	8.49	0.20	µg/L	10.0		85	60-130			
3,4-Dichlorophenol	6.86	0.20	µg/L	10.0		68	60-130			
3,5-Dichlorophenol	8.08	0.20	µg/L	10.2		80	60-130			
2,3,4-Trichlorophenol	8.98	0.50	µg/L	10.0		89	60-130			
2,3,5-Trichlorophenol	9.69	0.50	µg/L	10.0		96	60-130			
2,3,6-Trichlorophenol	9.87	0.50	µg/L	10.0		98	60-130			
2,4,5-Trichlorophenol	9.44	0.50	µg/L	10.0		94	60-130			
2,4,6-Trichlorophenol	9.93	0.50	µg/L	9.95		100	60-130			
3,4,5-Trichlorophenol	9.83	0.50	µg/L	10.0		98	60-130			
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	22.4	0.50	µg/L	19.9		112	60-130			
2,3,4,6-Tetrachlorophenol	9.54	0.50	µg/L	10.0		95	60-130			
Pentachlorophenol	11.6	0.50	µg/L	9.95		117	60-130			
Surrogate: 2,4-Dibromophenol	*1.90*		*µg/L*	2.00		*95*	*60-130*			
Surrogate: 2,4,6-Tribromophenol	*2.00*		*µg/L*	2.00		*100*	*60-130*			
LCS Dup (B2J2994-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
2-Chlorophenol	6.20	0.10	µg/L	10.0		62	60-130	3	40	
3 & 4-Chlorophenol	16.1	0.10	µg/L	19.8		81	60-130	23	40	
4-Chloro-3-Methylphenol	7.71	0.50	µg/L	10.2		76	60-130	2	40	
2,3-Dichlorophenol	6.22	0.20	µg/L	10.1		62	60-130	9	40	
2,4 & 2,5-Dichlorophenol	14.7	0.20	µg/L	20.2		73	60-130	12	40	
2,6-Dichlorophenol	7.17	0.20	µg/L	10.0		72	60-130	17	40	
3,4-Dichlorophenol	7.57	0.20	µg/L	10.0		75	60-130	10	40	
3,5-Dichlorophenol	8.09	0.20	µg/L	10.2		80	60-130	< 1	40	
2,3,4-Trichlorophenol	7.26	0.50	µg/L	10.0		72	60-130	21	40	
2,3,5-Trichlorophenol	7.41	0.50	µg/L	10.0		74	60-130	27	40	
2,3,6-Trichlorophenol	7.75	0.50	µg/L	10.0		77	60-130	24	40	
2,4,5-Trichlorophenol	6.85	0.50	µg/L	10.0		68	60-130	32	40	
2,4,6-Trichlorophenol	7.89	0.50	µg/L	9.95		79	60-130	23	40	
3,4,5-Trichlorophenol	8.75	0.50	µg/L	10.0		88	60-130	12	40	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	15.6	0.50	µg/L	19.9		78	60-130	36	40	
2,3,4,6-Tetrachlorophenol	7.13	0.50	µg/L	10.0		71	60-130	29	40	
Pentachlorophenol	9.28	0.50	µg/L	9.95		93	60-130	22	40	
Surrogate: 2,4-Dibromophenol	*1.54*		*µg/L*	2.00		*77*	*60-130*			
Surrogate: 2,4,6-Tribromophenol	*1.61*		*µg/L*	2.00		*80*	*60-130*			
Dissolved Metals, Batch B2J3251										
Blank (B2J3251-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3251-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B2J3251-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	0.000488	0.000010	mg/L	0.000500		98	80-120			
LCS (B2J3251-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, dissolved	0.000498	0.000010	mg/L	0.000500		100	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3633										
Blank (B2J3633-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Mercury, dissolved	< 0.000040	0.000040	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B2J3633-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, dissolved	4.17	0.0050	mg/L	4.00		104	80-120			
Antimony, dissolved	0.0410	0.00020	mg/L	0.0400		102	80-120			
Arsenic, dissolved	0.0421	0.00050	mg/L	0.0400		105	80-120			
Barium, dissolved	0.0418	0.0050	mg/L	0.0400		104	80-120			
Beryllium, dissolved	0.0405	0.00010	mg/L	0.0400		101	80-120			
Bismuth, dissolved	0.0409	0.00010	mg/L	0.0400		102	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400		98	80-120			
Cadmium, dissolved	0.0410	0.000010	mg/L	0.0400		102	80-120			
Calcium, dissolved	4.17	0.20	mg/L	4.00		104	80-120			
Chromium, dissolved	0.0412	0.00050	mg/L	0.0400		103	80-120			
Cobalt, dissolved	0.0402	0.00010	mg/L	0.0400		100	80-120			
Copper, dissolved	0.0411	0.00040	mg/L	0.0400		103	80-120			
Iron, dissolved	4.04	0.010	mg/L	4.00		101	80-120			
Lead, dissolved	0.0405	0.00020	mg/L	0.0400		101	80-120			
Lithium, dissolved	0.0408	0.00010	mg/L	0.0400		102	80-120			
Magnesium, dissolved	4.16	0.010	mg/L	4.00		104	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3633, Continued										
LCS (B2J3633-BS1), Continued				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Manganese, dissolved	0.0410	0.00020	mg/L	0.0400		103	80-120			
Mercury, dissolved	0.00397	0.000040	mg/L	0.00400		99	80-120			
Molybdenum, dissolved	0.0401	0.00010	mg/L	0.0400		100	80-120			
Nickel, dissolved	0.0399	0.00040	mg/L	0.0400		100	80-120			
Phosphorus, dissolved	4.13	0.050	mg/L	4.00		103	80-120			
Potassium, dissolved	4.10	0.10	mg/L	4.00		102	80-120			
Selenium, dissolved	0.0404	0.00050	mg/L	0.0400		101	80-120			
Silicon, dissolved	4.2	1.0	mg/L	4.00		106	80-120			
Silver, dissolved	0.0414	0.000050	mg/L	0.0400		103	80-120			
Sodium, dissolved	4.15	0.10	mg/L	4.00		104	80-120			
Strontium, dissolved	0.0413	0.0010	mg/L	0.0400		103	80-120			
Sulfur, dissolved	40.9	3.0	mg/L	40.0		102	80-120			
Tellurium, dissolved	0.0409	0.00050	mg/L	0.0400		102	80-120			
Thallium, dissolved	0.0399	0.000020	mg/L	0.0400		100	80-120			
Thorium, dissolved	0.0403	0.00010	mg/L	0.0400		101	80-120			
Tin, dissolved	0.0419	0.00020	mg/L	0.0400		105	80-120			
Titanium, dissolved	0.0399	0.0050	mg/L	0.0400		100	80-120			
Tungsten, dissolved	0.0404	0.0010	mg/L	0.0400		101	80-120			
Uranium, dissolved	0.0398	0.000020	mg/L	0.0400		100	80-120			
Vanadium, dissolved	0.0411	0.0050	mg/L	0.0400		103	80-120			
Zinc, dissolved	0.0410	0.0040	mg/L	0.0400		102	80-120			
Zirconium, dissolved	0.0412	0.00010	mg/L	0.0400		103	80-120			
General Parameters, Batch B2J2399										
Blank (B2J2399-BLK1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2399-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2399-BLK3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2399-BLK4)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
LCS (B2J2399-BS1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.01	0.50	mg/L	10.0		90	78-116			
Carbon, Dissolved Organic	9.67	0.50	mg/L	10.0		97	78-116			
LCS (B2J2399-BS2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.12	0.50	mg/L	10.0		91	78-116			
Carbon, Dissolved Organic	9.66	0.50	mg/L	10.0		97	78-116			
LCS (B2J2399-BS3)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.34	0.50	mg/L	10.0		93	78-116			
Carbon, Dissolved Organic	9.33	0.50	mg/L	10.0		93	78-116			
LCS (B2J2399-BS4)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.27	0.50	mg/L	10.0		93	78-116			
Carbon, Dissolved Organic	9.27	0.50	mg/L	10.0		93	78-116			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2399, Continued										
Duplicate (B2J2399-DUP3)		**Source: 22J2700-05**		Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	1.54	0.50	mg/L		1.41				16	
Carbon, Dissolved Organic	1.03	0.50	mg/L		1.10				15	
Matrix Spike (B2J2399-MS3)		**Source: 22J2700-05**		Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	9.75	0.50	mg/L	10.0	1.41	83	70-130			
Carbon, Dissolved Organic	9.71	0.50	mg/L	10.0	1.10	86	70-130			
General Parameters, Batch B2J2939										
Blank (B2J2939-BLK2)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Phosphorus, Total (as P)	< 0.0050	0.0050	mg/L							
LCS (B2J2939-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Phosphorus, Total (as P)	0.105	0.0050	mg/L	0.100		105	85-115			
General Parameters, Batch B2J3009										
Blank (B2J3009-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B2J3009-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Dissolved	232	15	mg/L	240		97	85-115			
General Parameters, Batch B2J3016										
Blank (B2J3016-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B2J3016-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Suspended	86.0	10.0	mg/L	100		86	85-115			
General Parameters, Batch B2J3021										
Blank (B2J3021-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B2J3021-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Dissolved	235	15	mg/L	240		98	85-115			
General Parameters, Batch B2J3082										
Blank (B2J3082-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Nitrogen, Total Kjeldahl	< 0.050	0.050	mg/L							
Blank (B2J3082-BLK2)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Nitrogen, Total Kjeldahl	< 0.050	0.050	mg/L							
LCS (B2J3082-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Nitrogen, Total Kjeldahl	1.02	0.050	mg/L	1.00		102	85-115			
LCS (B2J3082-BS2)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Nitrogen, Total Kjeldahl	0.995	0.050	mg/L	1.00		100	85-115			
General Parameters, Batch B2J3089										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J3089, Continued										
Reference (B2J3089-SRM1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
pH	7.03	0.10	pH units	7.01		100	98-102			
Reference (B2J3089-SRM2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B2J3089-SRM3)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
pH	7.02	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B3A1696										
Blank (B3A1696-BLK1)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	< 0.10	0.10	NTU							
Blank (B3A1696-BLK2)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	< 0.10	0.10	NTU							
LCS (B3A1696-BS1)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	15.2	0.10	NTU	14.6		104	90-110			
LCS (B3A1696-BS2)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	15.2	0.10	NTU	14.6		104	90-110			
Microbiological Parameters, Batch B2J2338										
Blank (B2J2338-BLK1)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK2)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK3)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK4)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK5)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK6)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2338-BLK7)				Prepared: 2022-10-20, Analyzed: 2022-10-20						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Duplicate (B2J2338-DUP8)				**Source: 22J2700-01**	Prepared: 2022-10-20, Analyzed: 2022-10-20					
Coliforms, Total (Q-Tray)	298	1	MPN/100 mL		722			83	80	MIC29
E. coli (Q-Tray)	22	1	MPN/100 mL		26			14	80	
Pesticides, Herbicides, and Fungicides, Batch B2J2906										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
Blank (B2J2906-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	< 0.100	0.100	µg/L							
Aldrin	< 0.006	0.006	µg/L							
Atrazine and metabolites	< 0.100	0.100	µg/L							
Azinphos-methyl	< 0.200	0.200	µg/L							
alpha-BHC	< 0.010	0.010	µg/L							
beta-BHC	< 0.050	0.050	µg/L							
delta-BHC	< 0.050	0.050	µg/L							
gamma-BHC (Lindane)	< 0.050	0.050	µg/L							
Bromacil	< 0.100	0.100	µg/L							
Bromoxynil	< 0.200	0.200	µg/L							
Butachlor	< 0.020	0.020	µg/L							
Captan	< 0.100	0.100	µg/L							
Chlordane (cis + trans)	< 0.050	0.050	µg/L							
Chlorothalonil	< 0.050	0.050	µg/L							
Chlorpyrifos	< 0.010	0.010	µg/L							
Cyanazine	< 0.100	0.100	µg/L							
DDT, Total	0.012	0.010	µg/L							BLK
Deltamethrin	0.151	0.100	µg/L							BLK
Diazinon	< 0.020	0.020	µg/L							
Dichlorvos	< 0.100	0.100	µg/L							
Diclofop-methyl	< 0.100	0.100	µg/L							
Dieldrin	< 0.010	0.010	µg/L							
Dimethoate	< 0.200	0.200	µg/L							
Disulfoton	< 0.100	0.100	µg/L							
Diuron	< 0.200	0.200	µg/L							
Endosulfan I + II	< 0.010	0.010	µg/L							
Endosulfan sulfate	< 0.050	0.050	µg/L							
Endrin	< 0.020	0.020	µg/L							
Endrin aldehyde	< 0.020	0.020	µg/L							
Endrin ketone	< 0.020	0.020	µg/L							
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L							
Heptachlor	< 0.010	0.010	µg/L							
Heptachlor epoxide	< 0.010	0.010	µg/L							
Linuron	< 0.050	0.050	µg/L							
Malathion	< 0.100	0.100	µg/L							
Methoxychlor	< 0.050	0.050	µg/L							
Methyl parathion	< 0.100	0.100	µg/L							
Metolachlor	< 0.100	0.100	µg/L							
Metribuzin	< 0.200	0.200	µg/L							
Parathion	< 0.100	0.100	µg/L							
Pentachloronitrobenzene	< 0.100	0.100	µg/L							
Permethrin	0.015	0.010	µg/L							BLK
Phorate	< 0.100	0.100	µg/L							
Prometon	< 0.300	0.300	µg/L							RQ1
Prometryne	< 0.100	0.100	µg/L							
Simazine	< 0.200	0.200	µg/L							
Sulfotep	< 0.100	0.100	µg/L							
Tebuthiuron	< 0.200	0.200	µg/L							
Temephos (Abate)	< 0.500	0.500	µg/L							
Terbufos	< 0.100	0.100	µg/L							
Triallate	< 0.100	0.100	µg/L							
Trifluralin	< 0.200	0.200	µg/L							
Surrogate: Tributyl Phosphate	*0.780*		*µg/L*	0.998		*78*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.619*		*µg/L*	1.00		*62*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2700
REPORTED 2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
LCS (B2J2906-BS1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	0.768	0.100	µg/L	1.01		76	50-140			
Aldrin	0.725	0.006	µg/L	1.00		73	50-140			
Atrazine	0.612	0.100	µg/L	1.01		61	50-140			
Atrazine-desethyl	0.193	0.100	µg/L	1.03		19	50-140			SPK
Azinphos-methyl	0.936	0.200	µg/L	0.981		95	50-140			
alpha-BHC	0.683	0.010	µg/L	1.01		68	50-140			
beta-BHC	0.733	0.050	µg/L	1.01		73	50-140			
delta-BHC	0.719	0.050	µg/L	1.00		72	50-140			
gamma-BHC (Lindane)	0.681	0.050	µg/L	1.00		68	50-140			
Bromacil	0.761	0.100	µg/L	1.01		75	50-140			
Bromoxynil	0.645	0.200	µg/L	0.978		66	50-140			
Butachlor	0.841	0.020	µg/L	1.01		83	50-140			
Captan	0.787	0.100	µg/L	0.996		79	50-140			
Chlordane (cis + trans)	1.46	0.050	µg/L	2.01		73	50-140			
Chlorothalonil	0.657	0.050	µg/L	1.01		65	50-140			
Chlorpyrifos	0.767	0.010	µg/L	1.00		77	50-140			
Cyanazine	0.742	0.100	µg/L	1.01		73	50-140			
DDT, Total	4.63	0.010	µg/L	5.97		77	50-140			
Deltamethrin	8.60	0.100	µg/L	10.1		85	50-140			
Diazinon	0.738	0.020	µg/L	1.00		74	50-140			
Dichlorvos	0.741	0.100	µg/L	1.09		68	50-140			
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140			
Dieldrin	0.768	0.010	µg/L	1.00		77	50-140			
Dimethoate	0.619	0.200	µg/L	0.990		63	50-140			
Disulfoton	0.633	0.100	µg/L	1.02		62	50-140			
Diuron	0.916	0.200	µg/L	1.06		86	50-140			
Endosulfan I + II	1.55	0.010	µg/L	2.01		77	50-140			
Endosulfan sulfate	0.774	0.050	µg/L	1.01		77	50-140			
Endrin	0.767	0.020	µg/L	1.01		76	50-140			
Endrin aldehyde	0.843	0.020	µg/L	1.00		84	50-140			
Endrin ketone	0.738	0.020	µg/L	1.01		73	50-140			
Fenchlorphos (Ronnel)	0.659	0.100	µg/L	1.03		64	50-140			
Heptachlor	0.687	0.010	µg/L	1.01		68	50-140			
Heptachlor epoxide	0.715	0.010	µg/L	1.01		71	50-140			
Linuron	0.817	0.050	µg/L	1.07		76	50-140			
Malathion	0.885	0.100	µg/L	1.00		88	50-140			
Methoxychlor	0.808	0.050	µg/L	1.01		80	50-140			
Methyl parathion	0.738	0.100	µg/L	0.997		74	50-140			
Metolachlor	0.809	0.100	µg/L	1.00		81	50-140			
Metribuzin	0.691	0.200	µg/L	1.00		69	50-140			
Parathion	0.853	0.100	µg/L	0.999		85	50-140			
Pentachloronitrobenzene	0.658	0.100	µg/L	0.989		66	50-140			
Permethrin	1.06	0.010	µg/L	1.04		102	50-140			
Phorate	0.666	0.100	µg/L	1.00		67	50-140			
Prometon	< 0.300	0.300	µg/L	1.00		23	50-140			SPK
Prometryne	0.504	0.100	µg/L	1.00		50	50-140			
Simazine	0.511	0.200	µg/L	1.01		51	50-140			
Sulfotep	0.586	0.100	µg/L	1.04		56	50-140			
Tebuthiuron	0.520	0.200	µg/L	1.01		52	50-140			
Temephos (Abate)	8.39	0.500	µg/L	10.5		80	50-140			
Terbufos	0.696	0.100	µg/L	0.994		70	50-140			
Triallate	0.684	0.100	µg/L	1.01		68	50-140			
Trifluralin	0.721	0.200	µg/L	1.00		72	50-140			
Surrogate: Tributyl Phosphate	*0.768*		*µg/L*	0.998		*77*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.638*		*µg/L*	1.00		*64*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2700
PROJECT 690667 **REPORTED** 2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2906, Continued										
LCS Dup (B2J2906-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-11-01						
Alachlor	0.750	0.100	µg/L	1.01		74	50-140	2	30	
Aldrin	0.673	0.006	µg/L	1.00		67	50-140	8	30	
Atrazine	0.710	0.100	µg/L	1.01		70	50-140	15	30	
Atrazine-desethyl	0.461	0.100	µg/L	1.03		45	50-140	82	30	SPK
Azinphos-methyl	0.933	0.200	µg/L	0.981		95	50-140	< 1	30	
alpha-BHC	0.669	0.010	µg/L	1.01		66	50-140	2	30	
beta-BHC	0.711	0.050	µg/L	1.01		70	50-140	3	30	
delta-BHC	0.691	0.050	µg/L	1.00		69	50-140	4	30	
gamma-BHC (Lindane)	0.672	0.050	µg/L	1.00		67	50-140	1	30	
Bromacil	0.820	0.100	µg/L	1.01		81	50-140	7	30	
Bromoxynil	0.686	0.200	µg/L	0.978		70	50-140	6	30	
Butachlor	0.860	0.020	µg/L	1.01		85	50-140	2	30	
Captan	0.766	0.100	µg/L	0.996		77	50-140	3	30	
Chlordane (cis + trans)	1.41	0.050	µg/L	2.01		70	50-140	4	30	
Chlorothalonil	0.690	0.050	µg/L	1.01		68	50-140	5	30	
Chlorpyrifos	0.726	0.010	µg/L	1.00		73	50-140	5	30	
Cyanazine	0.783	0.100	µg/L	1.01		78	50-140	5	30	
DDT, Total	4.35	0.010	µg/L	5.97		73	50-140	6	30	
Deltamethrin	7.83	0.100	µg/L	10.1		78	50-140	9	30	
Diazinon	0.776	0.020	µg/L	1.00		78	50-140	5	30	
Dichlorvos	0.753	0.100	µg/L	1.09		69	50-140	2	30	
Diclofop-methyl	0.795	0.100	µg/L	1.02		78	50-140	4	30	
Dieldrin	0.759	0.010	µg/L	1.00		76	50-140	1	30	
Dimethoate	0.685	0.200	µg/L	0.990		69	50-140	10	30	
Disulfoton	0.628	0.100	µg/L	1.02		62	50-140	< 1	30	
Diuron	0.850	0.200	µg/L	1.06		80	50-140	7	30	
Endosulfan I + II	1.50	0.010	µg/L	2.01		75	50-140	3	30	
Endosulfan sulfate	0.747	0.050	µg/L	1.01		74	50-140	4	30	
Endrin	0.765	0.020	µg/L	1.01		76	50-140	< 1	30	
Endrin aldehyde	0.816	0.020	µg/L	1.00		82	50-140	3	30	
Endrin ketone	0.722	0.020	µg/L	1.01		71	50-140	2	30	
Fenchlorphos (Ronnel)	0.679	0.100	µg/L	1.03		66	50-140	3	30	
Heptachlor	0.662	0.010	µg/L	1.01		66	50-140	4	30	
Heptachlor epoxide	0.721	0.010	µg/L	1.01		71	50-140	< 1	30	
Linuron	1.14	0.050	µg/L	1.07		107	50-140	33	30	RPD
Malathion	0.842	0.100	µg/L	1.00		84	50-140	5	30	
Methoxychlor	0.798	0.050	µg/L	1.01		79	50-140	1	30	
Methyl parathion	0.745	0.100	µg/L	0.997		75	50-140	1	30	
Metolachlor	0.800	0.100	µg/L	1.00		80	50-140	1	30	
Metribuzin	0.779	0.200	µg/L	1.00		78	50-140	12	30	
Parathion	0.850	0.100	µg/L	0.999		85	50-140	< 1	30	
Pentachloronitrobenzene	0.647	0.100	µg/L	0.989		65	50-140	2	30	
Permethrin	0.957	0.010	µg/L	1.04		92	50-140	10	30	
Phorate	0.670	0.100	µg/L	1.00		67	50-140	< 1	30	
Prometon	0.391	0.300	µg/L	1.00		39	50-140	52	30	SPK
Prometryne	0.605	0.100	µg/L	1.00		60	50-140	18	30	
Simazine	0.649	0.200	µg/L	1.01		64	50-140	24	30	
Sulfotep	0.584	0.100	µg/L	1.04		56	50-140	< 1	30	
Tebuthiuron	0.888	0.200	µg/L	1.01		88	50-140	52	30	RPD
Temephos (Abate)	7.76	0.500	µg/L	10.5		74	50-140	8	30	
Terbufos	0.704	0.100	µg/L	0.994		71	50-140	1	30	
Triallate	0.670	0.100	µg/L	1.01		66	50-140	2	30	
Trifluralin	0.741	0.200	µg/L	1.00		74	50-140	3	30	
Surrogate: Tributyl Phosphate	*0.790*		*µg/L*	0.998		*79*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.635*		*µg/L*	1.00		*64*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249										
Blank (B2J3249-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-11-04						
Alachlor	< 0.100	0.100	µg/L							
Aldrin	< 0.006	0.006	µg/L							
Atrazine and metabolites	< 0.100	0.100	µg/L							
Azinphos-methyl	< 0.200	0.200	µg/L							
alpha-BHC	< 0.010	0.010	µg/L							
beta-BHC	< 0.050	0.050	µg/L							
delta-BHC	< 0.050	0.050	µg/L							
gamma-BHC (Lindane)	< 0.050	0.050	µg/L							
Bromacil	< 0.100	0.100	µg/L							
Bromoxynil	< 0.200	0.200	µg/L							
Butachlor	< 0.020	0.020	µg/L							
Captan	< 0.100	0.100	µg/L							
Chlordane (cis + trans)	< 0.050	0.050	µg/L							
Chlorothalonil	< 0.050	0.050	µg/L							
Chlorpyrifos	< 0.010	0.010	µg/L							
Cyanazine	< 0.100	0.100	µg/L							
DDT, Total	< 0.010	0.010	µg/L							
Deltamethrin	< 0.100	0.100	µg/L							
Diazinon	< 0.020	0.020	µg/L							
Dichlorvos	< 0.100	0.100	µg/L							
Diclofop-methyl	< 0.100	0.100	µg/L							
Dieldrin	< 0.010	0.010	µg/L							
Dimethoate	< 0.200	0.200	µg/L							
Disulfoton	< 0.100	0.100	µg/L							
Diuron	< 0.200	0.200	µg/L							
Endosulfan I + II	< 0.010	0.010	µg/L							
Endosulfan sulfate	< 0.050	0.050	µg/L							
Endrin	< 0.020	0.020	µg/L							
Endrin aldehyde	< 0.020	0.020	µg/L							
Endrin ketone	< 0.020	0.020	µg/L							
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L							
Heptachlor	< 0.010	0.010	µg/L							
Heptachlor epoxide	< 0.010	0.010	µg/L							
Linuron	< 0.050	0.050	µg/L							
Malathion	< 0.100	0.100	µg/L							
Methoxychlor	< 0.050	0.050	µg/L							
Methyl parathion	< 0.100	0.100	µg/L							
Metolachlor	< 0.100	0.100	µg/L							
Metribuzin	< 0.200	0.200	µg/L							
Parathion	< 0.100	0.100	µg/L							
Pentachloronitrobenzene	< 0.100	0.100	µg/L							
Permethrin	< 0.010	0.010	µg/L							
Phorate	< 0.100	0.100	µg/L							
Prometon	< 0.300	0.300	µg/L							
Prometryne	< 0.100	0.100	µg/L							
Simazine	< 0.200	0.200	µg/L							
Sulfotep	< 0.100	0.100	µg/L							
Tebuthiuron	< 0.200	0.200	µg/L							
Temephos (Abate)	< 0.500	0.500	µg/L							
Terbufos	< 0.100	0.100	µg/L							
Triallate	< 0.100	0.100	µg/L							
Trifluralin	< 0.200	0.200	µg/L							
Surrogate: Tributyl Phosphate	*0.608*		*µg/L*	0.998		*61*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.570*		*µg/L*	1.00		*57*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249, Continued										
LCS (B2J3249-BS1)				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Alachlor	0.765	0.100	µg/L	1.01		76	50-140			
Aldrin	0.649	0.006	µg/L	1.00		65	50-140			
Atrazine	0.626	0.100	µg/L	1.01		62	50-140			
Atrazine-desethyl	0.199	0.100	µg/L	1.03		19	50-140			SPK1
Azinphos-methyl	0.925	0.200	µg/L	0.981		94	50-140			
alpha-BHC	0.690	0.010	µg/L	1.01		68	50-140			
beta-BHC	0.706	0.050	µg/L	1.01		70	50-140			
delta-BHC	0.700	0.050	µg/L	1.00		70	50-140			
gamma-BHC (Lindane)	0.683	0.050	µg/L	1.00		68	50-140			
Bromacil	0.808	0.100	µg/L	1.01		80	50-140			
Bromoxynil	0.776	0.200	µg/L	0.978		79	50-140			
Butachlor	0.869	0.020	µg/L	1.01		86	50-140			
Captan	0.711	0.100	µg/L	0.996		71	50-140			
Chlordane (cis + trans)	1.46	0.050	µg/L	2.01		73	50-140			
Chlorothalonil	0.701	0.050	µg/L	1.01		69	50-140			
Chlorpyrifos	0.722	0.010	µg/L	1.00		72	50-140			
Cyanazine	0.618	0.100	µg/L	1.01		61	50-140			
DDT, Total	4.65	0.010	µg/L	5.97		78	50-140			
Deltamethrin	8.25	0.100	µg/L	10.1		82	50-140			
Diazinon	0.701	0.020	µg/L	1.00		70	50-140			
Dichlorvos	0.684	0.100	µg/L	1.09		63	50-140			
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140			
Dieldrin	0.760	0.010	µg/L	1.00		76	50-140			
Dimethoate	0.643	0.200	µg/L	0.990		65	50-140			
Disulfoton	0.662	0.100	µg/L	1.02		65	50-140			
Diuron	0.907	0.200	µg/L	1.06		86	50-140			
Endosulfan I + II	1.50	0.010	µg/L	2.01		74	50-140			
Endosulfan sulfate	0.772	0.050	µg/L	1.01		76	50-140			
Endrin	0.760	0.020	µg/L	1.01		75	50-140			
Endrin aldehyde	0.817	0.020	µg/L	1.00		82	50-140			
Endrin ketone	0.789	0.020	µg/L	1.01		78	50-140			
Fenchlorphos (Ronnel)	0.701	0.100	µg/L	1.03		68	50-140			
Heptachlor	0.687	0.010	µg/L	1.01		68	50-140			
Heptachlor epoxide	0.733	0.010	µg/L	1.01		73	50-140			
Linuron	1.16	0.050	µg/L	1.07		108	50-140			
Malathion	0.843	0.100	µg/L	1.00		84	50-140			
Methoxychlor	0.835	0.050	µg/L	1.01		83	50-140			
Methyl parathion	0.675	0.100	µg/L	0.997		68	50-140			
Metolachlor	0.811	0.100	µg/L	1.00		81	50-140			
Metribuzin	0.531	0.200	µg/L	1.00		53	50-140			
Parathion	0.850	0.100	µg/L	0.999		85	50-140			
Pentachloronitrobenzene	0.637	0.100	µg/L	0.989		64	50-140			
Permethrin	0.960	0.010	µg/L	1.04		92	50-140			
Phorate	0.646	0.100	µg/L	1.00		65	50-140			
Prometon	0.542	0.300	µg/L	1.00		54	50-140			
Prometryne	0.726	0.100	µg/L	1.00		73	50-140			
Simazine	0.610	0.200	µg/L	1.01		60	50-140			
Sulfotep	0.712	0.100	µg/L	1.04		68	50-140			
Tebuthiuron	0.514	0.200	µg/L	1.01		51	50-140			
Temephos (Abate)	8.27	0.500	µg/L	10.5		79	50-140			
Terbufos	0.713	0.100	µg/L	0.994		72	50-140			
Triallate	0.705	0.100	µg/L	1.01		70	50-140			
Trifluralin	0.714	0.200	µg/L	1.00		71	50-140			
Surrogate: Tributyl Phosphate	*0.704*		*µg/L*	0.998		*71*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.676*		*µg/L*	1.00		*68*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667
WORK ORDER 22J2700
REPORTED 2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249, Continued										
LCS Dup (B2J3249-BSD1)				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Alachlor	0.731	0.100	µg/L	1.01		72	50-140	4	30	
Aldrin	0.663	0.006	µg/L	1.00		66	50-140	2	30	
Atrazine	0.635	0.100	µg/L	1.01		63	50-140	1	30	
Atrazine-desethyl	0.322	0.100	µg/L	1.03		31	50-140	47	30	RPD, SPK1
Azinphos-methyl	1.07	0.200	µg/L	0.981		109	50-140	14	30	
alpha-BHC	0.666	0.010	µg/L	1.01		66	50-140	3	30	
beta-BHC	0.664	0.050	µg/L	1.01		66	50-140	6	30	
delta-BHC	0.631	0.050	µg/L	1.00		63	50-140	10	30	
gamma-BHC (Lindane)	0.665	0.050	µg/L	1.00		67	50-140	3	30	
Bromacil	0.786	0.100	µg/L	1.01		78	50-140	3	30	
Bromoxynil	0.754	0.200	µg/L	0.978		77	50-140	3	30	
Butachlor	0.874	0.020	µg/L	1.01		86	50-140	< 1	30	
Captan	0.780	0.100	µg/L	0.996		78	50-140	9	30	
Chlordane (cis + trans)	1.35	0.050	µg/L	2.01		67	50-140	8	30	
Chlorothalonil	0.689	0.050	µg/L	1.01		68	50-140	2	30	
Chlorpyrifos	0.723	0.010	µg/L	1.00		72	50-140	< 1	30	
Cyanazine	0.792	0.100	µg/L	1.01		78	50-140	25	30	
DDT, Total	4.53	0.010	µg/L	5.97		76	50-140	3	30	
Deltamethrin	8.37	0.100	µg/L	10.1		83	50-140	1	30	
Diazinon	0.527	0.020	µg/L	1.00		53	50-140	28	30	
Dichlorvos	0.644	0.100	µg/L	1.09		59	50-140	6	30	
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140	< 1	30	
Dieldrin	0.745	0.010	µg/L	1.00		75	50-140	2	30	
Dimethoate	0.632	0.200	µg/L	0.990		64	50-140	2	30	
Disulfoton	0.636	0.100	µg/L	1.02		62	50-140	4	30	
Diuron	0.809	0.200	µg/L	1.06		76	50-140	11	30	
Endosulfan I + II	1.47	0.010	µg/L	2.01		73	50-140	2	30	
Endosulfan sulfate	0.757	0.050	µg/L	1.01		75	50-140	2	30	
Endrin	0.767	0.020	µg/L	1.01		76	50-140	1	30	
Endrin aldehyde	0.782	0.020	µg/L	1.00		78	50-140	4	30	
Endrin ketone	0.734	0.020	µg/L	1.01		73	50-140	7	30	
Fenchlorphos (Ronnel)	0.655	0.100	µg/L	1.03		64	50-140	7	30	
Heptachlor	0.673	0.010	µg/L	1.01		67	50-140	2	30	
Heptachlor epoxide	0.722	0.010	µg/L	1.01		72	50-140	1	30	
Linuron	0.994	0.050	µg/L	1.07		93	50-140	15	30	
Malathion	0.864	0.100	µg/L	1.00		86	50-140	3	30	
Methoxychlor	0.848	0.050	µg/L	1.01		84	50-140	2	30	
Methyl parathion	0.725	0.100	µg/L	0.997		73	50-140	7	30	
Metolachlor	0.770	0.100	µg/L	1.00		77	50-140	5	30	
Metribuzin	0.722	0.200	µg/L	1.00		72	50-140	31	30	RPD
Parathion	0.877	0.100	µg/L	0.999		88	50-140	3	30	
Pentachloronitrobenzene	0.643	0.100	µg/L	0.989		65	50-140	1	30	
Permethrin	1.06	0.010	µg/L	1.04		102	50-140	10	30	
Phorate	0.648	0.100	µg/L	1.00		65	50-140	< 1	30	
Prometon	< 0.300	0.300	µg/L	1.00		11	50-140	132	30	RPD, SPK1
Prometryne	0.278	0.100	µg/L	1.00		28	50-140	89	30	RPD, SPK1
Simazine	0.507	0.200	µg/L	1.01		50	50-140	18	30	
Sulfotep	0.693	0.100	µg/L	1.04		67	50-140	3	30	
Tebuthiuron	< 0.200	0.200	µg/L	1.01		16	50-140	105	30	RPD, SPK1
Temephos (Abate)	8.75	0.500	µg/L	10.5		83	50-140	6	30	
Terbufos	0.719	0.100	µg/L	0.994		72	50-140	< 1	30	
Triallate	0.683	0.100	µg/L	1.01		68	50-140	3	30	
Trifluralin	0.743	0.200	µg/L	1.00		74	50-140	4	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249, Continued										
LCS Dup (B2J3249-BSD1), Continued				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Surrogate: Tributyl Phosphate	*0.630*		*µg/L*	0.998		*63*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.533*		*µg/L*	1.00		*53*	*50-140*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189										
Blank (B2J3189-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*17.0*		*µg/L*	22.2		*76*	*50-140*			
Surrogate: Naphthalene-d8	*18.7*		*µg/L*	22.2		*84*	*50-140*			
Surrogate: Perylene-d12	*28.9*		*µg/L*	22.2		*130*	*50-140*			
Blank (B2J3189-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*16.1*		*µg/L*	22.2		*72*	*50-140*			
Surrogate: Naphthalene-d8	*17.9*		*µg/L*	22.2		*81*	*50-140*			
Surrogate: Perylene-d12	*27.4*		*µg/L*	22.2		*124*	*50-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189, Continued										
Blank (B2J3189-BLK2), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-27						
LCS (B2J3189-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	18.0	0.050	µg/L	22.1		81	50-140			
Acenaphthylene	17.2	0.200	µg/L	21.9		79	50-140			
Acridine	18.3	0.050	µg/L	22.0		83	50-140			
Anthracene	19.3	0.010	µg/L	22.1		87	50-140			
Benz(a)anthracene	22.2	0.010	µg/L	22.1		101	50-140			
Benzo(a)pyrene	24.7	0.010	µg/L	21.9		113	50-140			
Benzo(b+j)fluoranthene	51.6	0.050	µg/L	43.8		118	50-140			
Benzo(g,h,i)perylene	23.9	0.050	µg/L	21.9		109	50-140			
Benzo(k)fluoranthene	26.0	0.050	µg/L	22.0		118	50-140			
2-Chloronaphthalene	17.9	0.100	µg/L	21.9		82	50-140			
Chrysene	23.1	0.050	µg/L	21.8		106	50-140			
Dibenz(a,h)anthracene	23.1	0.010	µg/L	22.2		104	50-140			
Fluoranthene	16.4	0.030	µg/L	22.2		74	50-140			
Fluorene	17.5	0.050	µg/L	22.7		77	50-140			
Indeno(1,2,3-cd)pyrene	24.6	0.050	µg/L	21.9		112	50-140			
1-Methylnaphthalene	15.0	0.100	µg/L	22.0		68	50-140			
2-Methylnaphthalene	15.4	0.100	µg/L	22.0		70	50-140			
Naphthalene	12.7	0.200	µg/L	22.0		58	50-140			
Phenanthrene	19.1	0.100	µg/L	21.9		87	50-140			
Pyrene	16.3	0.020	µg/L	22.2		73	50-140			
Quinoline	25.8	0.050	µg/L	22.2		116	50-140			
Surrogate: Acridine-d9	*16.2*		*µg/L*	22.2		*73*	*50-140*			
Surrogate: Naphthalene-d8	*16.9*		*µg/L*	22.2		*76*	*50-140*			
Surrogate: Perylene-d12	*26.6*		*µg/L*	22.2		*120*	*50-140*			
LCS (B2J3189-BS3)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	20.6	0.050	µg/L	22.1		93	50-140			
Acenaphthylene	19.8	0.200	µg/L	21.9		91	50-140			
Acridine	20.4	0.050	µg/L	22.0		93	50-140			
Anthracene	22.1	0.010	µg/L	22.1		100	50-140			
Benz(a)anthracene	25.5	0.010	µg/L	22.1		115	50-140			
Benzo(a)pyrene	28.2	0.010	µg/L	21.9		129	50-140			
Benzo(b+j)fluoranthene	59.1	0.050	µg/L	43.8		135	50-140			
Benzo(g,h,i)perylene	27.2	0.050	µg/L	21.9		124	50-140			
Benzo(k)fluoranthene	29.7	0.050	µg/L	22.0		135	50-140			
2-Chloronaphthalene	20.7	0.100	µg/L	21.9		95	50-140			
Chrysene	26.3	0.050	µg/L	21.8		121	50-140			
Dibenz(a,h)anthracene	26.5	0.010	µg/L	22.2		119	50-140			
Fluoranthene	18.6	0.030	µg/L	22.2		84	50-140			
Fluorene	20.1	0.050	µg/L	22.7		89	50-140			
Indeno(1,2,3-cd)pyrene	28.0	0.050	µg/L	21.9		128	50-140			
1-Methylnaphthalene	17.2	0.100	µg/L	22.0		78	50-140			
2-Methylnaphthalene	17.7	0.100	µg/L	22.0		80	50-140			
Naphthalene	16.3	0.200	µg/L	22.0		74	50-140			
Phenanthrene	21.8	0.100	µg/L	21.9		100	50-140			
Pyrene	18.2	0.020	µg/L	22.2		82	50-140			
Quinoline	25.8	0.050	µg/L	22.2		116	50-140			
Surrogate: Acridine-d9	*18.6*		*µg/L*	22.2		*84*	*50-140*			
Surrogate: Naphthalene-d8	*20.4*		*µg/L*	22.2		*92*	*50-140*			
Surrogate: Perylene-d12	*30.9*		*µg/L*	22.2		*139*	*50-140*			
LCS Dup (B2J3189-BSD1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	18.3	0.050	µg/L	22.1		83	50-140	2	30	
Acenaphthylene	17.6	0.200	µg/L	21.9		80	50-140	2	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189, Continued										
LCS Dup (B2J3189-BSD1), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acridine	18.4	0.050	µg/L	22.0		83	50-140	< 1	30	
Anthracene	19.6	0.010	µg/L	22.1		89	50-140	1	30	
Benz(a)anthracene	22.3	0.010	µg/L	22.1		101	50-140	< 1	30	
Benzo(a)pyrene	24.9	0.010	µg/L	21.9		114	50-140	< 1	30	
Benzo(b+j)fluoranthene	51.1	0.050	µg/L	43.8		117	50-140	1	30	
Benzo(g,h,i)perylene	24.1	0.050	µg/L	21.9		110	50-140	< 1	30	
Benzo(k)fluoranthene	25.7	0.050	µg/L	22.0		117	50-140	1	30	
2-Chloronaphthalene	18.3	0.100	µg/L	21.9		83	50-140	2	30	
Chrysene	23.3	0.050	µg/L	21.8		107	50-140	< 1	30	
Dibenz(a,h)anthracene	23.4	0.010	µg/L	22.2		105	50-140	1	30	
Fluoranthene	16.4	0.030	µg/L	22.2		74	50-140	< 1	30	
Fluorene	17.8	0.050	µg/L	22.7		78	50-140	2	30	
Indeno(1,2,3-cd)pyrene	24.8	0.050	µg/L	21.9		113	50-140	< 1	30	
1-Methylnaphthalene	15.3	0.100	µg/L	22.0		70	50-140	2	30	
2-Methylnaphthalene	15.7	0.100	µg/L	22.0		71	50-140	2	30	
Naphthalene	15.0	0.200	µg/L	22.0		68	50-140	17	30	
Phenanthrene	19.4	0.100	µg/L	21.9		88	50-140	1	30	
Pyrene	16.4	0.020	µg/L	22.2		74	50-140	1	30	
Quinoline	26.3	0.050	µg/L	22.2		118	50-140	2	30	
Surrogate: Acridine-d9	*16.3*		*µg/L*	22.2		*73*	*50-140*			
Surrogate: Naphthalene-d8	*17.4*		*µg/L*	22.2		*78*	*50-140*			
Surrogate: Perylene-d12	*26.7*		*µg/L*	22.2		*120*	*50-140*			
LCS Dup (B2J3189-BSD3)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	15.7	0.050	µg/L	22.1		71	50-140	27	30	
Acenaphthylene	15.0	0.200	µg/L	21.9		69	50-140	28	30	
Acridine	15.9	0.050	µg/L	22.0		72	50-140	25	30	
Anthracene	16.9	0.010	µg/L	22.1		76	50-140	27	30	
Benz(a)anthracene	19.7	0.010	µg/L	22.1		89	50-140	26	30	
Benzo(a)pyrene	21.6	0.010	µg/L	21.9		98	50-140	27	30	
Benzo(b+j)fluoranthene	44.2	0.050	µg/L	43.8		101	50-140	29	30	
Benzo(g,h,i)perylene	20.9	0.050	µg/L	21.9		95	50-140	26	30	
Benzo(k)fluoranthene	20.1	0.050	µg/L	22.0		91	50-140	38	30	RPD1
2-Chloronaphthalene	15.6	0.100	µg/L	21.9		71	50-140	28	30	
Chrysene	20.1	0.050	µg/L	21.8		92	50-140	27	30	
Dibenz(a,h)anthracene	20.0	0.010	µg/L	22.2		90	50-140	28	30	
Fluoranthene	14.3	0.030	µg/L	22.2		64	50-140	26	30	
Fluorene	15.3	0.050	µg/L	22.7		67	50-140	27	30	
Indeno(1,2,3-cd)pyrene	21.4	0.050	µg/L	21.9		98	50-140	27	30	
1-Methylnaphthalene	13.1	0.100	µg/L	22.0		60	50-140	27	30	
2-Methylnaphthalene	13.4	0.100	µg/L	22.0		61	50-140	27	30	
Naphthalene	12.9	0.200	µg/L	22.0		58	50-140	24	30	
Phenanthrene	16.7	0.100	µg/L	21.9		76	50-140	27	30	
Pyrene	14.3	0.020	µg/L	22.2		64	50-140	25	30	
Quinoline	22.5	0.050	µg/L	22.2		101	50-140	14	30	
Surrogate: Acridine-d9	*16.2*		*µg/L*	22.2		*73*	*50-140*			
Surrogate: Naphthalene-d8	*17.8*		*µg/L*	22.2		*80*	*50-140*			
Surrogate: Perylene-d12	*26.6*		*µg/L*	22.2		*120*	*50-140*			
Total Metals, Batch B2J3252										
Blank (B2J3252-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	< 0.000010	0.000010	mg/L							
Blank (B2J3252-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	< 0.000010	0.000010	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2700
REPORTED 2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3252, Continued										
LCS (B2J3252-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	0.000500	0.000010	mg/L	0.000500		100	80-120			
LCS (B2J3252-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Mercury, total	0.000491	0.000010	mg/L	0.000500		98	80-120			
Total Metals, Batch B2J3637										
Blank (B2J3637-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J3637-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	3.94	0.0050	mg/L	4.00		98	80-120			
Antimony, total	0.0396	0.00020	mg/L	0.0400		99	80-120			
Arsenic, total	0.0401	0.00050	mg/L	0.0400		100	80-120			
Barium, total	0.0386	0.0050	mg/L	0.0400		96	80-120			
Beryllium, total	0.0393	0.00010	mg/L	0.0400		98	80-120			
Bismuth, total	0.0385	0.00010	mg/L	0.0400		96	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		102	80-120			
Cadmium, total	0.0392	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	3.86	0.20	mg/L	4.00		97	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3637, Continued										
LCS (B2J3637-BS1), Continued				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Chromium, total	0.0413	0.00050	mg/L	0.0400		103	80-120			
Cobalt, total	0.0400	0.00010	mg/L	0.0400		100	80-120			
Copper, total	0.0396	0.00040	mg/L	0.0400		99	80-120			
Iron, total	4.01	0.010	mg/L	4.00		100	80-120			
Lead, total	0.0391	0.00020	mg/L	0.0400		98	80-120			
Lithium, total	0.0392	0.00010	mg/L	0.0400		98	80-120			
Magnesium, total	3.89	0.010	mg/L	4.00		97	80-120			
Manganese, total	0.0402	0.00020	mg/L	0.0400		101	80-120			
Molybdenum, total	0.0387	0.00010	mg/L	0.0400		97	80-120			
Nickel, total	0.0397	0.00040	mg/L	0.0400		99	80-120			
Phosphorus, total	3.94	0.050	mg/L	4.00		99	80-120			
Potassium, total	4.00	0.10	mg/L	4.00		100	80-120			
Selenium, total	0.0397	0.00050	mg/L	0.0400		99	80-120			
Silicon, total	4.2	1.0	mg/L	4.00		105	80-120			
Silver, total	0.0400	0.000050	mg/L	0.0400		100	80-120			
Sodium, total	4.12	0.10	mg/L	4.00		103	80-120			
Strontium, total	0.0396	0.0010	mg/L	0.0400		99	80-120			
Sulfur, total	41.1	3.0	mg/L	40.0		103	80-120			
Tellurium, total	0.0367	0.00050	mg/L	0.0400		92	80-120			
Thallium, total	0.0390	0.000020	mg/L	0.0400		97	80-120			
Thorium, total	0.0399	0.00010	mg/L	0.0400		100	80-120			
Tin, total	0.0387	0.00020	mg/L	0.0400		97	80-120			
Titanium, total	0.0390	0.0050	mg/L	0.0400		98	80-120			
Tungsten, total	0.0400	0.0002	mg/L	0.0400		100	80-120			
Uranium, total	0.0390	0.000020	mg/L	0.0400		98	80-120			
Vanadium, total	0.0403	0.0050	mg/L	0.0400		101	80-120			
Zinc, total	0.0399	0.0040	mg/L	0.0400		100	80-120			
Zirconium, total	0.0390	0.00010	mg/L	0.0400		97	80-120			
Total Metals, Batch B2J3638										
Blank (B2J3638-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Mercury, total	< 0.000040	0.000040	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3638, Continued										
Blank (B2J3638-BLK1), Continued				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J3638-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Aluminum, total	4.00	0.0050	mg/L	4.00		100	80-120			
Antimony, total	0.0389	0.00020	mg/L	0.0400		97	80-120			
Arsenic, total	0.0411	0.00050	mg/L	0.0400		103	80-120			
Barium, total	0.0372	0.0050	mg/L	0.0400		93	80-120			
Beryllium, total	0.0395	0.00010	mg/L	0.0400		99	80-120			
Bismuth, total	0.0390	0.00010	mg/L	0.0400		98	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		101	80-120			
Cadmium, total	0.0390	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	4.04	0.20	mg/L	4.00		101	80-120			
Chromium, total	0.0404	0.00050	mg/L	0.0400		101	80-120			
Cobalt, total	0.0402	0.00010	mg/L	0.0400		100	80-120			
Copper, total	0.0399	0.00040	mg/L	0.0400		100	80-120			
Iron, total	3.97	0.010	mg/L	4.00		99	80-120			
Lead, total	0.0394	0.00020	mg/L	0.0400		99	80-120			
Lithium, total	0.0390	0.00010	mg/L	0.0400		97	80-120			
Magnesium, total	4.02	0.010	mg/L	4.00		100	80-120			
Manganese, total	0.0404	0.00020	mg/L	0.0400		101	80-120			
Mercury, total	0.00393	0.000040	mg/L	0.00400		98	80-120			
Molybdenum, total	0.0390	0.00010	mg/L	0.0400		97	80-120			
Nickel, total	0.0394	0.00040	mg/L	0.0400		98	80-120			
Phosphorus, total	4.08	0.050	mg/L	4.00		102	80-120			
Potassium, total	3.96	0.10	mg/L	4.00		99	80-120			
Selenium, total	0.0389	0.00050	mg/L	0.0400		97	80-120			
Silicon, total	4.1	1.0	mg/L	4.00		103	80-120			
Silver, total	0.0401	0.000050	mg/L	0.0400		100	80-120			
Sodium, total	4.14	0.10	mg/L	4.00		104	80-120			
Strontium, total	0.0393	0.0010	mg/L	0.0400		98	80-120			
Sulfur, total	39.7	3.0	mg/L	40.0		99	80-120			
Tellurium, total	0.0376	0.00050	mg/L	0.0400		94	80-120			
Thallium, total	0.0391	0.000020	mg/L	0.0400		98	80-120			
Thorium, total	0.0400	0.00010	mg/L	0.0400		100	80-120			
Tin, total	0.0392	0.00020	mg/L	0.0400		98	80-120			
Titanium, total	0.0390	0.0050	mg/L	0.0400		97	80-120			
Tungsten, total	0.0397	0.0002	mg/L	0.0400		99	80-120			
Uranium, total	0.0393	0.000020	mg/L	0.0400		98	80-120			
Vanadium, total	0.0411	0.0050	mg/L	0.0400		103	80-120			
Zinc, total	0.0389	0.0040	mg/L	0.0400		97	80-120			
Zirconium, total	0.0387	0.00010	mg/L	0.0400		97	80-120			
Volatile Organic Compounds (VOC), Batch B2J3197										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J3197, Continued										
Blank (B2J3197-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Benzene	< 0.5	0.5	µg/L							
Bromodichloromethane	< 1.0	1.0	µg/L							
Bromoform	< 1.0	1.0	µg/L							
Carbon tetrachloride	< 0.5	0.5	µg/L							
Chlorobenzene	< 1.0	1.0	µg/L							
Chloroethane	< 2.0	2.0	µg/L							
Chloroform	< 1.0	1.0	µg/L							
Dibromochloromethane	< 1.0	1.0	µg/L							
1,2-Dibromoethane	< 0.3	0.3	µg/L							
Dibromomethane	< 1.0	1.0	µg/L							
1,2-Dichlorobenzene	< 0.5	0.5	µg/L							
1,3-Dichlorobenzene	< 1.0	1.0	µg/L							
1,4-Dichlorobenzene	< 1.0	1.0	µg/L							
1,1-Dichloroethane	< 1.0	1.0	µg/L							
1,2-Dichloroethane	< 1.0	1.0	µg/L							
1,1-Dichloroethylene	< 1.0	1.0	µg/L							
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
Dichloromethane	< 3.0	3.0	µg/L							
1,2-Dichloropropane	< 1.0	1.0	µg/L							
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L							
Ethylbenzene	< 1.0	1.0	µg/L							
Methyl tert-butyl ether	< 1.0	1.0	µg/L							
Styrene	< 1.0	1.0	µg/L							
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L							
Tetrachloroethylene	< 1.0	1.0	µg/L							
Toluene	< 1.0	1.0	µg/L							
1,1,1-Trichloroethane	< 1.0	1.0	µg/L							
1,1,2-Trichloroethane	< 1.0	1.0	µg/L							
Trichloroethylene	< 1.0	1.0	µg/L							
Trichlorofluoromethane	< 1.0	1.0	µg/L							
Vinyl chloride	< 1.0	1.0	µg/L							
Xylenes (total)	< 2.0	2.0	µg/L							
Surrogate: Toluene-d8	*21.4*		*µg/L*	25.0		*86*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*24.3*		*µg/L*	24.9		*97*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*22.5*		*µg/L*	24.9		*90*	*70-130*			
Blank (B2J3197-BLK2)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Benzene	< 0.5	0.5	µg/L							
Bromodichloromethane	< 1.0	1.0	µg/L							
Bromoform	< 1.0	1.0	µg/L							
Carbon tetrachloride	< 0.5	0.5	µg/L							
Chlorobenzene	< 1.0	1.0	µg/L							
Chloroethane	< 2.0	2.0	µg/L							
Chloroform	< 1.0	1.0	µg/L							
Dibromochloromethane	< 1.0	1.0	µg/L							
1,2-Dibromoethane	< 0.3	0.3	µg/L							
Dibromomethane	< 1.0	1.0	µg/L							
1,2-Dichlorobenzene	< 0.5	0.5	µg/L							
1,3-Dichlorobenzene	< 1.0	1.0	µg/L							
1,4-Dichlorobenzene	< 1.0	1.0	µg/L							
1,1-Dichloroethane	< 1.0	1.0	µg/L							
1,2-Dichloroethane	< 1.0	1.0	µg/L							
1,1-Dichloroethylene	< 1.0	1.0	µg/L							
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2700
PROJECT 690667 **REPORTED** 2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J3197, Continued										
Blank (B2J3197-BLK2), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Dichloromethane	< 3.0	3.0	µg/L							
1,2-Dichloropropane	< 1.0	1.0	µg/L							
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L							
Ethylbenzene	< 1.0	1.0	µg/L							
Methyl tert-butyl ether	< 1.0	1.0	µg/L							
Styrene	< 1.0	1.0	µg/L							
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L							
Tetrachloroethylene	< 1.0	1.0	µg/L							
Toluene	< 1.0	1.0	µg/L							
1,1,1-Trichloroethane	< 1.0	1.0	µg/L							
1,1,2-Trichloroethane	< 1.0	1.0	µg/L							
Trichloroethylene	< 1.0	1.0	µg/L							
Trichlorofluoromethane	< 1.0	1.0	µg/L							
Vinyl chloride	< 1.0	1.0	µg/L							
Xylenes (total)	< 2.0	2.0	µg/L							
Surrogate: Toluene-d8	*21.6*		*µg/L*	25.0		*86*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*23.1*		*µg/L*	24.9		*93*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*20.8*		*µg/L*	24.9		*83*	*70-130*			
LCS (B2J3197-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Benzene	18.6	0.5	µg/L	20.0		93	70-130			
Bromodichloromethane	19.8	1.0	µg/L	20.1		98	70-130			
Bromoform	21.6	1.0	µg/L	20.0		108	70-130			
Carbon tetrachloride	18.4	0.5	µg/L	20.1		91	70-130			
Chlorobenzene	20.3	1.0	µg/L	20.1		101	70-130			
Chloroethane	20.1	2.0	µg/L	20.0		100	60-140			
Chloroform	19.6	1.0	µg/L	20.1		97	70-130			
Dibromochloromethane	19.7	1.0	µg/L	20.0		98	70-130			
1,2-Dibromoethane	18.7	0.3	µg/L	20.0		93	70-130			
Dibromomethane	17.8	1.0	µg/L	20.0		89	70-130			
1,2-Dichlorobenzene	20.8	0.5	µg/L	20.1		103	70-130			
1,3-Dichlorobenzene	18.5	1.0	µg/L	20.1		92	70-130			
1,4-Dichlorobenzene	17.9	1.0	µg/L	20.1		89	70-130			
1,1-Dichloroethane	19.2	1.0	µg/L	20.0		96	70-130			
1,2-Dichloroethane	19.6	1.0	µg/L	20.1		98	70-130			
1,1-Dichloroethylene	17.2	1.0	µg/L	20.0		86	70-130			
cis-1,2-Dichloroethylene	17.8	1.0	µg/L	20.0		89	70-130			
trans-1,2-Dichloroethylene	15.8	1.0	µg/L	20.1		79	70-130			
Dichloromethane	18.4	3.0	µg/L	20.1		91	70-130			
1,2-Dichloropropane	18.8	1.0	µg/L	20.1		93	70-130			
1,3-Dichloropropene (cis + trans)	33.6	1.0	µg/L	40.0		84	70-130			
Ethylbenzene	20.6	1.0	µg/L	20.0		103	70-130			
Methyl tert-butyl ether	19.0	1.0	µg/L	20.0		95	70-130			
Styrene	16.1	1.0	µg/L	20.0		80	70-130			
1,1,2,2-Tetrachloroethane	24.3	0.5	µg/L	20.1		121	70-130			
Tetrachloroethylene	15.5	1.0	µg/L	20.0		78	70-130			
Toluene	18.1	1.0	µg/L	20.0		90	70-130			
1,1,1-Trichloroethane	18.6	1.0	µg/L	20.1		92	70-130			
1,1,2-Trichloroethane	19.2	1.0	µg/L	20.1		96	70-130			
Trichloroethylene	17.1	1.0	µg/L	20.1		85	70-130			
Trichlorofluoromethane	18.0	1.0	µg/L	20.0		90	60-140			
Vinyl chloride	18.7	1.0	µg/L	20.0		94	60-140			
Xylenes (total)	61.1	2.0	µg/L	60.0		102	70-130			
Surrogate: Toluene-d8	*23.1*		*µg/L*	25.0		*93*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*26.2*		*µg/L*	24.9		*105*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*22.3*		*µg/L*	24.9		*90*	*70-130*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier

QC Qualifiers:

BLK	Analyte concentration in the Method Blank is above the Reporting Limit (RL).
MIC29	The difference in logs is less than the R value.
RPD	Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
RPD1	Relative percent difference(s) (RPD) of one or more analytes on duplicate analysis are outside of control limits due to sample heterogeneity.
RQ1	Reporting limits have been raised due to QC bias.
SPK	The recovery of this analyte was outside of established control limits.
SPK1	The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2700
PROJECT	690667	**REPORTED**	2023-01-23 14:36

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2700-01	2022-11-29	Sample ID	N/A	N/A
22J2700-05	2022-11-29	Sample ID	N/A	N/A
22J2700-01	2022-12-14	SampleRegID	N/A	N/A
22J2700-02	2022-12-14	SampleRegID	N/A	N/A
22J2700-03	2022-12-14	SampleRegID	N/A	N/A
22J2700-04	2022-12-14	SampleRegID	N/A	N/A
22J2700-05	2022-12-14	SampleRegID	N/A	N/A
22J2700-01	2023-01-18	Added	Turbidity	
22J2700-02	2023-01-18	Added	Turbidity	
22J2700-03	2023-01-18	Added	Turbidity	
22J2700-04	2023-01-18	Added	Turbidity	
22J2700-05	2023-01-18	Added	Turbidity	
22J2700-05	2023-01-19	Added	Mercury, dissolved by ICPMS	
22J2700-05	2023-01-19	Added	Mercury, total by ICPMS	
22J2700-02	2023-01-23	Sample ID	N/A	N/A
22J2700-03	2023-01-23	Sample ID	N/A	N/A

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2737
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-20 15:27 / 6.8°C
PROJECT	690667	**REPORTED**	2022-11-29 14:08
PROJECT INFO	Flood Disaster Recovery, Merritt	**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: YES

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-1 (22J2737-01) | Matrix: Soil | Sampled: 2022-10-20 09:30					
BCMOE Aggregate Hydrocarbons					
VHs (6-10)	< 20	20	mg/kg dry	2022-10-27	
VPHs	< 20	20	mg/kg dry	N/A	
EPHs10-19	< 50	50	mg/kg dry	2022-10-26	
EPHs19-32	< 50	50	mg/kg dry	2022-10-26	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*76*	*60-140*	%	*2022-10-26*	
Chlorinated Phenols					
2-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3 & 4-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
4-Chloro-3-Methylphenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,4 & 2,5-Dichlorophenol	< 0.030	0.030	mg/kg dry	2022-10-27	
2,6-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3,4-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3,5-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,4-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,4,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,4,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
Pentachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
Surrogate: 2,4-Dibromophenol	*86*	*50-140*	%	*2022-10-27*	
Surrogate: 2,4,6-Tribromophenol	*88*	*50-140*	%	*2022-10-27*	
General Parameters					
Carbon, Total Organic	**0.198**	0.050	% dry	2022-10-24	
Moisture	**20.0**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.80**	0.10	pH units	2022-10-27	
Microbiological Parameters					
Coliforms, Total	**4.5**	3.0	MPN/g dry	2022-10-21	
Coliforms, Fecal	**4.5**	3.0	MPN/g dry	2022-10-21	
E. coli	**4.5**	3.0	MPN/g dry	2022-10-21	
Particle Size Distribution					
> 75 µm	**87.5**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-1 (22J2737-01) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-1 (22J2737-01) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*112*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*98*	*50-140*	%	*2022-11-02*	
Polychlorinated Biphenyl Aroclors					
PCB-1016	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1221	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1232	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1242	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1248	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1254	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1260	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1262	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1268	< 0.040	0.040	mg/kg dry	2022-10-26	
Total PCBs	< 0.120	0.040	mg/kg dry	2022-10-26	
Surrogate: Decachlorobiphenyl	*107*	*50-140*	%	*2022-10-26*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-26	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-26	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-1 (22J2737-01) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-26	
Surrogate: Acenaphthene-d10	*84*	*50-140*	%	*2022-10-26*	
Surrogate: Chrysene-d12	*85*	*50-140*	%	*2022-10-26*	
Surrogate: Naphthalene-d8	*90*	*50-140*	%	*2022-10-26*	
Surrogate: Perylene-d12	*83*	*50-140*	%	*2022-10-26*	
Surrogate: Phenanthrene-d10	*87*	*55-140*	%	*2022-10-26*	
Strong Acid Leachable Metals					
Aluminum	**9220**	40	mg/kg dry	2022-10-27	
Antimony	**0.18**	0.10	mg/kg dry	2022-10-27	
Arsenic	**2.52**	0.30	mg/kg dry	2022-10-27	
Barium	**68.7**	1.0	mg/kg dry	2022-10-27	
Beryllium	**0.21**	0.10	mg/kg dry	2022-10-27	
Boron	< 2.0	2.0	mg/kg dry	2022-10-27	
Cadmium	**0.061**	0.040	mg/kg dry	2022-10-27	
Chromium	**15.3**	1.0	mg/kg dry	2022-10-27	
Cobalt	**7.03**	0.10	mg/kg dry	2022-10-27	
Copper	**15.8**	0.40	mg/kg dry	2022-10-27	
Iron	**21100**	20	mg/kg dry	2022-10-27	
Lead	**2.49**	0.20	mg/kg dry	2022-10-27	
Lithium	**5.89**	0.10	mg/kg dry	2022-10-27	
Manganese	**364**	0.40	mg/kg dry	2022-10-27	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-27	
Molybdenum	**0.33**	0.10	mg/kg dry	2022-10-27	
Nickel	**10.7**	0.60	mg/kg dry	2022-10-27	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-27	
Silver	< 0.10	0.10	mg/kg dry	2022-10-27	
Strontium	**45.9**	0.20	mg/kg dry	2022-10-27	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-27	
Tin	**0.41**	0.20	mg/kg dry	2022-10-27	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-27	
Uranium	**0.313**	0.050	mg/kg dry	2022-10-27	
Vanadium	**56.9**	1.0	mg/kg dry	2022-10-27	
Zinc	**37.6**	2.0	mg/kg dry	2022-10-27	
Volatile Organic Compounds (VOC)					
Benzene	< 0.030	0.030	mg/kg dry	2022-10-27	
Bromodichloromethane	< 0.100	0.100	mg/kg dry	2022-10-27	
Bromoform	< 0.100	0.100	mg/kg dry	2022-10-27	
Carbon tetrachloride	< 0.050	0.050	mg/kg dry	2022-10-27	
Chlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-27	
Chloroform	< 0.050	0.050	mg/kg dry	2022-10-27	
Dibromochloromethane	< 0.100	0.100	mg/kg dry	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-1 (22J2737-01) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Volatile Organic Compounds (VOC), Continued					
1,2-Dibromoethane	< 0.100	0.100	mg/kg dry	2022-10-27	
Dibromomethane	< 0.100	0.100	mg/kg dry	2022-10-27	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-27	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-27	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-27	
1,1-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-27	
1,2-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-27	
1,1-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-27	
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-27	
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-27	
Dichloromethane	< 0.100	0.100	mg/kg dry	2022-10-27	
1,2-Dichloropropane	< 0.050	0.050	mg/kg dry	2022-10-27	
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg dry	2022-10-27	
Ethylbenzene	< 0.050	0.050	mg/kg dry	2022-10-27	
Methyl tert-butyl ether	< 0.040	0.040	mg/kg dry	2022-10-27	
Styrene	< 0.050	0.050	mg/kg dry	2022-10-27	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg dry	2022-10-27	
Tetrachloroethylene	< 0.050	0.050	mg/kg dry	2022-10-27	
Toluene	< 0.200	0.200	mg/kg dry	2022-10-27	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-27	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-27	
Trichloroethylene	< 0.040	0.040	mg/kg dry	2022-10-27	
Trichlorofluoromethane	< 0.100	0.100	mg/kg dry	2022-10-27	
Vinyl chloride	< 0.100	0.100	mg/kg dry	2022-10-27	
Xylenes (total)	< 0.100	0.100	mg/kg dry	2022-10-27	
Surrogate: Toluene-d8	*83*	*60-140*	%	*2022-10-27*	
Surrogate: 4-Bromofluorobenzene	*85*	*60-140*	%	*2022-10-27*	
Surrogate: 1,4-Dichlorobenzene-d4	*79*	*60-140*	%	*2022-10-27*	
SED22-EH1-1 (22J2737-02) | Matrix: Soil | Sampled: 2022-10-19 16:38					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-26	
EPHs19-32	< 50	50	mg/kg dry	2022-10-26	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*75*	*60-140*	%	*2022-10-26*	
General Parameters					
Carbon, Total Organic	**0.052**	0.050	% dry	2022-10-24	
Moisture	**12.3**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.93**	0.10	pH units	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-1 (22J2737-02) | Matrix: Soil | Sampled: 2022-10-19 16:38, Continued					
Particle Size Distribution					
> 75 µm	**95.9**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-1 (22J2737-02) | Matrix: Soil | Sampled: 2022-10-19 16:38, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*108*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*95*	*50-140*	%	*2022-11-02*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-26	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-26	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-26	
Surrogate: Acenaphthene-d10	*88*	*50-140*	%	*2022-10-26*	
Surrogate: Chrysene-d12	*96*	*50-140*	%	*2022-10-26*	
Surrogate: Naphthalene-d8	*87*	*50-140*	%	*2022-10-26*	
Surrogate: Perylene-d12	*93*	*50-140*	%	*2022-10-26*	
Surrogate: Phenanthrene-d10	*97*	*55-140*	%	*2022-10-26*	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-1 (22J2737-02) | Matrix: Soil | Sampled: 2022-10-19 16:38, Continued					
Strong Acid Leachable Metals					
Aluminum	**9900**	40	mg/kg dry	2022-10-27	
Antimony	**0.16**	0.10	mg/kg dry	2022-10-27	
Arsenic	**3.54**	0.30	mg/kg dry	2022-10-27	
Barium	**32.5**	1.0	mg/kg dry	2022-10-27	
Beryllium	**0.19**	0.10	mg/kg dry	2022-10-27	
Boron	< 2.0	2.0	mg/kg dry	2022-10-27	
Cadmium	**0.045**	0.040	mg/kg dry	2022-10-27	
Chromium	**16.3**	1.0	mg/kg dry	2022-10-27	
Cobalt	**10.4**	0.10	mg/kg dry	2022-10-27	
Copper	**16.7**	0.40	mg/kg dry	2022-10-27	
Iron	**23300**	20	mg/kg dry	2022-10-27	
Lead	**1.91**	0.20	mg/kg dry	2022-10-27	
Lithium	**6.68**	0.10	mg/kg dry	2022-10-27	
Manganese	**417**	0.40	mg/kg dry	2022-10-27	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-27	
Molybdenum	**0.25**	0.10	mg/kg dry	2022-10-27	
Nickel	**13.2**	0.60	mg/kg dry	2022-10-27	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-27	
Silver	< 0.10	0.10	mg/kg dry	2022-10-27	
Strontium	**26.2**	0.20	mg/kg dry	2022-10-27	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-27	
Tin	**0.41**	0.20	mg/kg dry	2022-10-27	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-27	
Uranium	**0.277**	0.050	mg/kg dry	2022-10-27	
Vanadium	**61.6**	1.0	mg/kg dry	2022-10-27	
Zinc	**37.6**	2.0	mg/kg dry	2022-10-27	
SED22-CC1-2 (22J2737-03) | Matrix: Soil | Sampled: 2022-10-20 10:48					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-26	
EPHs19-32	< 50	50	mg/kg dry	2022-10-26	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*96*	*60-140*	%	*2022-10-26*	
General Parameters					
Carbon, Total Organic	**0.145**	0.050	% dry	2022-10-24	
Moisture	**9.0**	1.0	% wet	2022-10-24	
Particle Size Distribution					
> 75 µm	**92.4**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC1-2 (22J2737-03) | Matrix: Soil | Sampled: 2022-10-20 10:48, Continued					
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-26	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-26	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-26	
Surrogate: Acenaphthene-d10	*108*	*50-140*	%	*2022-10-26*	
Surrogate: Chrysene-d12	*116*	*50-140*	%	*2022-10-26*	
Surrogate: Naphthalene-d8	*110*	*50-140*	%	*2022-10-26*	
Surrogate: Perylene-d12	*111*	*50-140*	%	*2022-10-26*	
Surrogate: Phenanthrene-d10	*115*	*55-140*	%	*2022-10-26*	
SED22-A (22J2737-04) | Matrix: Soil | Sampled: 2022-10-20 09:30					
BCMOE Aggregate Hydrocarbons					
VHs (6-10)	< 20	20	mg/kg dry	2022-10-25	
VPHs	< 20	20	mg/kg dry	N/A	
EPHs10-19	< 50	50	mg/kg dry	2022-10-26	
EPHs19-32	< 50	50	mg/kg dry	2022-10-26	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*73*	*60-140*	%	*2022-10-26*	
Chlorinated Phenols					
2-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3 & 4-Chlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
4-Chloro-3-Methylphenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-A (22J2737-04) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Chlorinated Phenols, Continued					
2,4 & 2,5-Dichlorophenol	< 0.030	0.030	mg/kg dry	2022-10-27	
2,6-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3,4-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3,5-Dichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,4-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,4,6-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
3,4,5-Trichlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
2,3,4,6-Tetrachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
Pentachlorophenol	< 0.020	0.020	mg/kg dry	2022-10-27	
Surrogate: 2,4-Dibromophenol	*79*	*50-140*	%	*2022-10-27*	
Surrogate: 2,4,6-Tribromophenol	*80*	*50-140*	%	*2022-10-27*	
General Parameters					
Carbon, Total Organic	**0.145**	0.050	% dry	2022-10-24	
Moisture	**20.3**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.44**	0.10	pH units	2022-10-27	
Microbiological Parameters					
Coliforms, Total	< 3.8	3.0	MPN/g dry	2022-10-21	
Coliforms, Fecal	< 3.8	3.0	MPN/g dry	2022-10-21	
E. coli	< 3.8	3.0	MPN/g dry	2022-10-21	
Particle Size Distribution					
> 75 µm	**87.8**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-A (22J2737-04) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*94*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*83*	*50-140*	%	*2022-11-02*	
Polychlorinated Biphenyl Aroclors					

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-A (22J2737-04) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Polychlorinated Biphenyl Aroclors, Continued					
PCB-1016	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1221	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1232	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1242	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1248	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1254	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1260	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1262	< 0.040	0.040	mg/kg dry	2022-10-26	
PCB-1268	< 0.040	0.040	mg/kg dry	2022-10-26	
Total PCBs	< 0.120	0.040	mg/kg dry	2022-10-26	
Surrogate: Decachlorobiphenyl	*108*	*50-140*	%	*2022-10-26*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-26	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-26	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-26	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-26	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-26	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-26	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-26	
Surrogate: Acenaphthene-d10	*72*	*50-140*	%	*2022-10-26*	
Surrogate: Chrysene-d12	*82*	*50-140*	%	*2022-10-26*	
Surrogate: Naphthalene-d8	*74*	*50-140*	%	*2022-10-26*	
Surrogate: Perylene-d12	*74*	*50-140*	%	*2022-10-26*	
Surrogate: Phenanthrene-d10	*79*	*55-140*	%	*2022-10-26*	
Strong Acid Leachable Metals					
Aluminum	**9210**	40	mg/kg dry	2022-10-27	
Antimony	**0.16**	0.10	mg/kg dry	2022-10-27	
Arsenic	**2.55**	0.30	mg/kg dry	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
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Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-A (22J2737-04) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Strong Acid Leachable Metals, Continued					
Barium	**69.6**	1.0	mg/kg dry	2022-10-27	
Beryllium	**0.21**	0.10	mg/kg dry	2022-10-27	
Boron	< 2.0	2.0	mg/kg dry	2022-10-27	
Cadmium	**0.065**	0.040	mg/kg dry	2022-10-27	
Chromium	**14.6**	1.0	mg/kg dry	2022-10-27	
Cobalt	**7.08**	0.10	mg/kg dry	2022-10-27	
Copper	**16.1**	0.40	mg/kg dry	2022-10-27	
Iron	**21000**	20	mg/kg dry	2022-10-27	
Lead	**2.54**	0.20	mg/kg dry	2022-10-27	
Lithium	**5.90**	0.10	mg/kg dry	2022-10-27	
Manganese	**372**	0.40	mg/kg dry	2022-10-27	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-27	
Molybdenum	**0.31**	0.10	mg/kg dry	2022-10-27	
Nickel	**10.9**	0.60	mg/kg dry	2022-10-27	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-27	
Silver	< 0.10	0.10	mg/kg dry	2022-10-27	
Strontium	**45.1**	0.20	mg/kg dry	2022-10-27	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-27	
Tin	**0.42**	0.20	mg/kg dry	2022-10-27	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-27	
Uranium	**0.315**	0.050	mg/kg dry	2022-10-27	
Vanadium	**58.0**	1.0	mg/kg dry	2022-10-27	
Zinc	**36.7**	2.0	mg/kg dry	2022-10-27	
Volatile Organic Compounds (VOC)					
Benzene	< 0.030	0.030	mg/kg dry	2022-10-25	
Bromodichloromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
Bromoform	< 0.100	0.100	mg/kg dry	2022-10-25	
Carbon tetrachloride	< 0.050	0.050	mg/kg dry	2022-10-25	
Chlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
Chloroform	< 0.050	0.050	mg/kg dry	2022-10-25	
Dibromochloromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
1,2-Dibromoethane	< 0.100	0.100	mg/kg dry	2022-10-25	
Dibromomethane	< 0.100	0.100	mg/kg dry	2022-10-25	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,2-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
Dichloromethane	< 0.100	0.100	mg/kg dry	2022-10-25	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
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Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-A (22J2737-04) | Matrix: Soil | Sampled: 2022-10-20 09:30, Continued					
Volatile Organic Compounds (VOC), Continued					
1,2-Dichloropropane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg dry	2022-10-25	
Ethylbenzene	< 0.050	0.050	mg/kg dry	2022-10-25	
Methyl tert-butyl ether	< 0.040	0.040	mg/kg dry	2022-10-25	
Styrene	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
Tetrachloroethylene	< 0.050	0.050	mg/kg dry	2022-10-25	
Toluene	< 0.200	0.200	mg/kg dry	2022-10-25	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-25	
Trichloroethylene	< 0.040	0.040	mg/kg dry	2022-10-25	
Trichlorofluoromethane	< 0.100	0.100	mg/kg dry	2022-10-25	
Vinyl chloride	< 0.100	0.100	mg/kg dry	2022-10-25	
Xylenes (total)	< 0.100	0.100	mg/kg dry	2022-10-25	
Surrogate: Toluene-d8	*86*	*60-140*	%	*2022-10-25*	
Surrogate: 4-Bromofluorobenzene	*87*	*60-140*	%	*2022-10-25*	
Surrogate: 1,4-Dichlorobenzene-d4	*88*	*60-140*	%	*2022-10-25*	
SED22-CC2-1 (22J2737-05) | Matrix: Soil | Sampled: 2022-10-19 15:03					
General Parameters					
Carbon, Total Organic	**0.377**	0.050	% dry	2022-10-24	
pH (1:2 H2O Solution)	**7.66**	0.10	pH units	2022-11-03	
Particle Size Distribution					
> 75 µm	**93.1**	0.1	% dry	2022-11-03	
Classification	**Coarse**		% dry	2022-11-03	
Strong Acid Leachable Metals					
Aluminum	**9310**	40	mg/kg dry	2022-11-01	
Antimony	**0.17**	0.10	mg/kg dry	2022-11-01	
Arsenic	**3.20**	0.30	mg/kg dry	2022-11-01	
Barium	**86.2**	1.0	mg/kg dry	2022-11-01	
Beryllium	**0.22**	0.10	mg/kg dry	2022-11-01	
Boron	< 2.0	2.0	mg/kg dry	2022-11-01	
Cadmium	**0.064**	0.040	mg/kg dry	2022-11-01	
Chromium	**13.6**	1.0	mg/kg dry	2022-11-01	
Cobalt	**6.99**	0.10	mg/kg dry	2022-11-01	
Copper	**17.6**	0.40	mg/kg dry	2022-11-01	
Iron	**21400**	20	mg/kg dry	2022-11-01	
Lead	**3.50**	0.20	mg/kg dry	2022-11-01	
Lithium	**6.77**	0.10	mg/kg dry	2022-11-01	
Manganese	**413**	0.40	mg/kg dry	2022-11-01	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC2-1 (22J2737-05) | Matrix: Soil | Sampled: 2022-10-19 15:03, Continued					
Strong Acid Leachable Metals, Continued					
Mercury	< 0.040	0.040	mg/kg dry	2022-11-01	
Molybdenum	**0.41**	0.10	mg/kg dry	2022-11-01	
Nickel	**8.73**	0.60	mg/kg dry	2022-11-01	
Selenium	< 0.20	0.20	mg/kg dry	2022-11-01	
Silver	< 0.10	0.10	mg/kg dry	2022-11-01	
Strontium	**41.6**	0.20	mg/kg dry	2022-11-01	
Thallium	< 0.10	0.10	mg/kg dry	2022-11-01	
Tin	**0.44**	0.20	mg/kg dry	2022-11-01	
Tungsten	< 0.20	0.20	mg/kg dry	2022-11-01	
Uranium	**0.286**	0.050	mg/kg dry	2022-11-01	
Vanadium	**55.5**	1.0	mg/kg dry	2022-11-01	
Zinc	**39.5**	2.0	mg/kg dry	2022-11-01	

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
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Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Fecal in Soil	TMECC 07.01 B	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Total in Soil	TMECC 07.01 A	Most Probable Number / Most Probable Number		Kelowna
E. coli in Soil	TMECC 07.01 C	Most Probable Number / Most Probable Number		Kelowna
EPH in Soil	EPA 3570* / BCMOE EPHs*	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-FID)	✓	Richmond
HEPHs in Soil	BCMOE LEPH/HEPH	Calculation		N/A
LEPHs in Soil	BCMOE LEPH/HEPH	Calculation		N/A
Moisture in Soil	ASTM D2974-87*	Gravimetry (Dried at 105C)		N/A
Particle Size in Soil	Carter 55.4*	Mechanical Sieving	✓	Richmond
Pesticides in Soil	EPA 3570* / EPA 8270D*	Shaker Extraction (DCM) / GC-MSD (SIM)	✓	Richmond
pH in Soil	Carter 16.2 / SM 4500-H+ B (2017)	1:2 Soil/Water Slurry / Electrometry	✓	Richmond
Phenols, Chlorinated in Soil	EPA 3570* / EPA 8270D	Shaker Extraction (DCM) / GC-MSD (SIM)	✓	Richmond
Polychlorinated Biphenyl Aroclors in Soil	EPA 3570* / EPA 8082A	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-ECD)	✓	Richmond
Polycyclic Aromatic Hydrocarbons in Soil	EPA 3570* / EPA 8270D	Shaker Extraction (Hexane-Acetone 1:1) / GC-MSD (SIM)	✓	Richmond
SALM in Soil	BCMOE SALM V.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
VH in Soil	EPA 5035A/5030B / BCMOE VHs	Methanol Extract, Purge&Trap / Purge&Trap or Headspace, Gas Chromatography (GC-FID)	✓	Richmond
Volatile Organic Compounds in Soil	EPA 5035A/5030B / EPA 8260D	Methanol Extract, Purge&Trap / GC-MSD (SIM)	✓	Richmond
VPHs in Soil	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)		N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
% dry	Percent (dry weight basis)
% wet	Percent (as received basis)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/kg dry	Milligrams per kilogram (dry weight basis)
MPN/g dry	Most Probable Number per gram (dry weight basis)
pH units	pH < 7 = acidic, ph > 7 = basic
ASTM	ASTM International Test Methods
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
Carter	Soil Sampling and Methods of Analysis, 2nd Edition (2007), Carter/Gregorich
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association
TMECC	Test Method for the Examination of Composting and Compost, US Composting Council

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
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General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J2851										
Blank (B2J2851-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
VHs (6-10)	< 20	20	mg/kg wet							
LCS (B2J2851-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
VHs (6-10)	430	20	mg/kg wet	341		127	70-130			
BCMOE Aggregate Hydrocarbons, Batch B2J2874										
Blank (B2J2874-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-27						
VHs (6-10)	< 20	20	mg/kg wet							
LCS (B2J2874-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-27						
VHs (6-10)	370	20	mg/kg wet	341		110	70-130			
BCMOE Aggregate Hydrocarbons, Batch B2J3007										
Blank (B2J3007-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*89.0*		*mg/kg wet*	78.9		*113*	*60-140*			
Blank (B2J3007-BLK2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*73.2*		*mg/kg wet*	75.5		*97*	*60-140*			
LCS (B2J3007-BS2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
EPHs10-19	2800	50	mg/kg wet	2820		98	70-130			
EPHs19-32	4200	50	mg/kg wet	4050		103	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*73.8*		*mg/kg wet*	80.5		*92*	*60-140*			
LCS (B2J3007-BS4)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
EPHs10-19	3100	50	mg/kg wet	3160		97	70-130			
EPHs19-32	4700	50	mg/kg wet	4540		103	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*82.5*		*mg/kg wet*	90.2		*92*	*60-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Chlorinated Phenols, Batch B2J3170										
Blank (B2J3170-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
2-Chlorophenol	< 0.020	0.020	mg/kg wet							
3 & 4-Chlorophenol	< 0.020	0.020	mg/kg wet							
4-Chloro-3-Methylphenol	< 0.020	0.020	mg/kg wet							
2,3-Dichlorophenol	< 0.020	0.020	mg/kg wet							
2,4 & 2,5-Dichlorophenol	< 0.030	0.030	mg/kg wet							
2,6-Dichlorophenol	< 0.020	0.020	mg/kg wet							
3,4-Dichlorophenol	< 0.020	0.020	mg/kg wet							
3,5-Dichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,4-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,5-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,6-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,4,5-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,4,6-Trichlorophenol	< 0.020	0.020	mg/kg wet							
3,4,5-Trichlorophenol	< 0.020	0.020	mg/kg wet							
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	< 0.020	0.020	mg/kg wet							
2,3,4,6-Tetrachlorophenol	< 0.020	0.020	mg/kg wet							
Pentachlorophenol	< 0.020	0.020	mg/kg wet							
Surrogate: 2,4-Dibromophenol	*0.601*		*mg/kg wet*	0.833		*72*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.615*		*mg/kg wet*	0.833		*74*	*50-140*			
LCS (B2J3170-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
2-Chlorophenol	0.599	0.020	mg/kg wet	0.838		71	50-140			
3 & 4-Chlorophenol	1.54	0.020	mg/kg wet	1.65		93	50-140			
4-Chloro-3-Methylphenol	0.770	0.020	mg/kg wet	0.850		91	50-140			
2,3-Dichlorophenol	0.611	0.020	mg/kg wet	0.842		73	50-140			
2,4 & 2,5-Dichlorophenol	1.41	0.030	mg/kg wet	1.69		83	50-140			
2,6-Dichlorophenol	0.678	0.020	mg/kg wet	0.833		81	50-140			
3,4-Dichlorophenol	0.805	0.020	mg/kg wet	0.838		96	50-140			
3,5-Dichlorophenol	0.845	0.020	mg/kg wet	0.846		100	50-140			
2,3,4-Trichlorophenol	0.721	0.020	mg/kg wet	0.838		86	50-140			
2,3,5-Trichlorophenol	0.777	0.020	mg/kg wet	0.838		93	50-140			
2,3,6-Trichlorophenol	0.753	0.020	mg/kg wet	0.838		90	50-140			
2,4,5-Trichlorophenol	0.774	0.020	mg/kg wet	0.838		92	50-140			
2,4,6-Trichlorophenol	0.791	0.020	mg/kg wet	0.829		95	50-140			
3,4,5-Trichlorophenol	0.857	0.020	mg/kg wet	0.833		103	50-140			
2,3,4,5 & 2,3,5,6-Tetrachlorophenol	1.59	0.020	mg/kg wet	1.66		96	50-140			
2,3,4,6-Tetrachlorophenol	0.767	0.020	mg/kg wet	0.833		92	50-140			
Pentachlorophenol	0.972	0.020	mg/kg wet	0.829		117	50-140			
Surrogate: 2,4-Dibromophenol	*0.841*		*mg/kg wet*	0.833		*101*	*50-140*			
Surrogate: 2,4,6-Tribromophenol	*0.888*		*mg/kg wet*	0.833		*107*	*50-140*			
General Parameters, Batch B2J2390										
Blank (B2J2390-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	< 0.050	0.050	% dry							
Blank (B2J2390-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.050	0.050	% dry							
Duplicate (B2J2390-DUP2)			**Source: 22J2737-02**	Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	0.054	0.050	% dry		0.052				20	
Reference (B2J2390-SRM1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	0.772	0.050	% dry	0.645		120	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2390, Continued										
Reference (B2J2390-SRM2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	0.688	0.050	% dry	0.645		107	80-120			
General Parameters, Batch B2J2649										
Reference (B2J2649-SRM1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Moisture	99.0	1.0	% wet	6.5		99	80-120			
General Parameters, Batch B2J3180										
Reference (B2J3180-SRM1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH (1:2 H2O Solution)	6.65	0.10	pH units	6.91		96	95-105			
Reference (B2J3180-SRM2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH (1:2 H2O Solution)	7.11	0.10	pH units	6.91		103	95-105			
Reference (B2J3180-SRM3)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH (1:2 H2O Solution)	6.70	0.10	pH units	6.91		97	95-105			
General Parameters, Batch B2K0370										
Reference (B2K0370-SRM1)				Prepared: 2022-11-03, Analyzed: 2022-11-03						
pH (1:2 H2O Solution)	7.04	0.10	pH units	6.91		102	95-105			
Reference (B2K0370-SRM2)				Prepared: 2022-11-03, Analyzed: 2022-11-03						
pH (1:2 H2O Solution)	7.04	0.10	pH units	6.91		102	95-105			
Reference (B2K0370-SRM3)				Prepared: 2022-11-03, Analyzed: 2022-11-03						
pH (1:2 H2O Solution)	6.70	0.10	pH units	6.91		97	95-105			
Reference (B2K0370-SRM4)				Prepared: 2022-11-03, Analyzed: 2022-11-03						
pH (1:2 H2O Solution)	7.12	0.10	pH units	6.91		103	95-105			
Reference (B2K0370-SRM5)				Prepared: 2022-11-03, Analyzed: 2022-11-03						
pH (1:2 H2O Solution)	6.95	0.10	pH units	6.91		101	95-105			
Microbiological Parameters, Batch B2J2520										
Blank (B2J2520-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Duplicate (B2J2520-DUP1)				**Source: 22J2737-01**	Prepared: 2022-10-21, Analyzed: 2022-10-21					
Coliforms, Total	< 3.8	3.0	MPN/g dry		4.5			148		MIC29
Coliforms, Fecal	< 3.8	3.0	MPN/g dry		4.5			147		MIC29
E. coli	< 3.8	3.0	MPN/g dry		4.5			145		MIC29
Pesticides, Herbicides, and Fungicides, Batch B2J2996										
Blank (B2J2996-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	< 0.0050	0.0050	mg/kg wet							
Aldrin	< 0.0050	0.0050	mg/kg wet							
Atrazine and metabolites	< 0.0050	0.0050	mg/kg wet							
Azinphos-methyl	< 0.0100	0.0100	mg/kg wet							
alpha-BHC	< 0.0050	0.0050	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
Blank (B2J2996-BLK1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
beta-BHC	< 0.0050	0.0050	mg/kg wet							
delta-BHC	< 0.0050	0.0050	mg/kg wet							
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg wet							
Bromacil	< 0.0050	0.0050	mg/kg wet							
Bromoxynil	< 0.0200	0.0200	mg/kg wet							
Butachlor	< 0.0050	0.0050	mg/kg wet							
Captan	< 0.0200	0.0200	mg/kg wet							
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg wet							
Chlorothalonil	< 0.0050	0.0050	mg/kg wet							
Chlorpyrifos	< 0.0100	0.0100	mg/kg wet							
Cyanazine	< 0.0100	0.0100	mg/kg wet							
DDT, Total	< 0.0100	0.0100	mg/kg wet							
Deltamethrin	< 0.0500	0.0500	mg/kg wet							
Diazinon	< 0.0100	0.0100	mg/kg wet							
Dichlorvos	< 0.0100	0.0100	mg/kg wet							
Diclofop-methyl	< 0.0050	0.0050	mg/kg wet							
Dieldrin	< 0.0050	0.0050	mg/kg wet							
Dimethoate	< 0.0100	0.0100	mg/kg wet							
Disulfoton	< 0.0200	0.0200	mg/kg wet							
Diuron	< 0.0200	0.0200	mg/kg wet							
Endosulfan I + II	< 0.0050	0.0050	mg/kg wet							
Endosulfan sulfate	< 0.0050	0.0050	mg/kg wet							
Endrin	< 0.0050	0.0050	mg/kg wet							
Endrin aldehyde	< 0.0050	0.0050	mg/kg wet							
Endrin ketone	< 0.0050	0.0050	mg/kg wet							
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg wet							
Heptachlor	< 0.0050	0.0050	mg/kg wet							
Heptachlor epoxide	< 0.0050	0.0050	mg/kg wet							
Linuron	< 0.0400	0.0400	mg/kg wet							
Malathion	< 0.0100	0.0100	mg/kg wet							
Methoxychlor	< 0.0050	0.0050	mg/kg wet							
Methyl parathion	< 0.0100	0.0100	mg/kg wet							
Metolachlor	< 0.0100	0.0100	mg/kg wet							
Metribuzin	< 0.0100	0.0100	mg/kg wet							
Parathion	< 0.0100	0.0100	mg/kg wet							
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg wet							
Permethrin	< 0.0050	0.0050	mg/kg wet							
Phorate	< 0.0100	0.0100	mg/kg wet							
Prometon	< 0.0100	0.0100	mg/kg wet							
Prometryne	< 0.0050	0.0050	mg/kg wet							
Simazine	< 0.0100	0.0100	mg/kg wet							
Sulfotep	< 0.0100	0.0100	mg/kg wet							
Tebuthiuron	< 0.0200	0.0200	mg/kg wet							
Temephos (Abate)	< 0.0500	0.0500	mg/kg wet							
Terbufos	< 0.0100	0.0100	mg/kg wet							
Triallate	< 0.0050	0.0050	mg/kg wet							
Trifluralin	< 0.0100	0.0100	mg/kg wet							
Surrogate: Tributyl Phosphate	*0.0845*		*mg/kg wet*	0.0802		*105*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0715*		*mg/kg wet*	0.0804		*89*	*50-140*			
LCS (B2J2996-BS1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	0.0807	0.0050	mg/kg wet	0.0834		97	50-140			
Aldrin	0.0898	0.0050	mg/kg wet	0.0826		109	50-140			
Atrazine and metabolites	0.156	0.0050	mg/kg wet	0.167		93	50-140			
Azinphos-methyl	0.105	0.0100	mg/kg wet	0.0810		130	50-140			
alpha-BHC	0.0715	0.0050	mg/kg wet	0.0834		86	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
LCS (B2J2996-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
beta-BHC	0.0752	0.0050	mg/kg wet	0.0834		90	50-140			
delta-BHC	0.0747	0.0050	mg/kg wet	0.0826		90	50-140			
gamma-BHC (Lindane)	0.0713	0.0050	mg/kg wet	0.0826		86	50-140			
Bromacil	0.0986	0.0050	mg/kg wet	0.0834		118	50-140			
Bromoxynil	0.0776	0.0200	mg/kg wet	0.0808		96	50-140			
Butachlor	0.0964	0.0050	mg/kg wet	0.0834		116	50-140			
Captan	0.0931	0.0200	mg/kg wet	0.0822		113	50-140			
Chlordane (cis + trans)	0.156	0.0050	mg/kg wet	0.166		94	50-140			
Chlorothalonil	0.0731	0.0050	mg/kg wet	0.0834		88	50-140			
Chlorpyrifos	0.0802	0.0100	mg/kg wet	0.0826		97	50-140			
Cyanazine	0.0899	0.0100	mg/kg wet	0.0834		108	50-140			
DDT, Total	0.529	0.0100	mg/kg wet	0.493		107	50-140			
Deltamethrin	0.950	0.0500	mg/kg wet	0.834		114	50-140			
Diazinon	0.0831	0.0100	mg/kg wet	0.0826		101	50-140			
Dichlorvos	0.0810	0.0100	mg/kg wet	0.0900		90	50-140			
Diclofop-methyl	0.0912	0.0050	mg/kg wet	0.0842		108	50-140			
Dieldrin	0.0848	0.0050	mg/kg wet	0.0826		103	50-140			
Dimethoate	0.0888	0.0100	mg/kg wet	0.0818		109	50-140			
Disulfoton	0.0710	0.0200	mg/kg wet	0.0842		84	50-140			
Diuron	0.0906	0.0200	mg/kg wet	0.0875		104	50-140			
Endosulfan I + II	0.170	0.0050	mg/kg wet	0.166		103	50-140			
Endosulfan sulfate	0.0855	0.0050	mg/kg wet	0.0834		103	50-140			
Endrin	0.0869	0.0050	mg/kg wet	0.0834		104	50-140			
Endrin aldehyde	0.0919	0.0050	mg/kg wet	0.0826		111	50-140			
Endrin ketone	0.0811	0.0050	mg/kg wet	0.0834		97	50-140			
Fenchlorphos (Ronnel)	0.0738	0.0100	mg/kg wet	0.0851		87	50-140			
Heptachlor	0.0753	0.0050	mg/kg wet	0.0834		90	50-140			
Heptachlor epoxide	0.0764	0.0050	mg/kg wet	0.0834		92	50-140			
Linuron	0.103	0.0400	mg/kg wet	0.0884		116	50-140			
Malathion	0.0898	0.0100	mg/kg wet	0.0826		109	50-140			
Methoxychlor	0.0926	0.0050	mg/kg wet	0.0834		111	50-140			
Methyl parathion	0.0853	0.0100	mg/kg wet	0.0823		104	50-140			
Metolachlor	0.0850	0.0100	mg/kg wet	0.0826		103	50-140			
Metribuzin	0.0877	0.0100	mg/kg wet	0.0826		106	50-140			
Parathion	0.0918	0.0100	mg/kg wet	0.0825		111	50-140			
Pentachloronitrobenzene	0.0709	0.0050	mg/kg wet	0.0817		87	50-140			
Permethrin	0.124	0.0050	mg/kg wet	0.0859		144	50-140			SPK
Phorate	0.0771	0.0100	mg/kg wet	0.0826		93	50-140			
Prometon	0.0698	0.0100	mg/kg wet	0.0826		84	50-140			
Prometryne	0.0883	0.0050	mg/kg wet	0.0826		107	50-140			
Simazine	0.0824	0.0100	mg/kg wet	0.0834		99	50-140			
Sulfotep	0.0637	0.0100	mg/kg wet	0.0859		74	50-140			
Tebuthiuron	0.0864	0.0200	mg/kg wet	0.0834		104	50-140			
Temephos (Abate)	1.03	0.0500	mg/kg wet	0.867		119	50-140			
Terbufos	0.0785	0.0100	mg/kg wet	0.0821		96	50-140			
Triallate	0.0739	0.0050	mg/kg wet	0.0834		89	50-140			
Trifluralin	0.0854	0.0100	mg/kg wet	0.0826		103	50-140			
Surrogate: Tributyl Phosphate	*0.0897*		*mg/kg wet*	0.0824		*109*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0761*		*mg/kg wet*	0.0826		*92*	*50-140*			
Polychlorinated Biphenyl Aroclors, Batch B2J2840										
Blank (B2J2840-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	< 0.040	0.040	mg/kg wet							
PCB-1221	< 0.040	0.040	mg/kg wet							
PCB-1232	< 0.040	0.040	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polychlorinated Biphenyl Aroclors, Batch B2J2840, Continued										
Blank (B2J2840-BLK1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1242	< 0.040	0.040	mg/kg wet							
PCB-1248	< 0.040	0.040	mg/kg wet							
PCB-1254	< 0.040	0.040	mg/kg wet							
PCB-1260	< 0.040	0.040	mg/kg wet							
PCB-1262	< 0.040	0.040	mg/kg wet							
PCB-1268	< 0.040	0.040	mg/kg wet							
Total PCBs	< 0.120	0.120	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.334*		*mg/kg wet*	0.320		*104*	*50-140*			
LCS (B2J2840-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	1.40	0.040	mg/kg wet	1.45		97	60-130			
PCB-1260	1.06	0.040	mg/kg wet	1.45		73	60-130			
Surrogate: Decachlorobiphenyl	*0.313*		*mg/kg wet*	0.288		*109*	*50-140*			
LCS Dup (B2J2840-BSD1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
PCB-1016	1.64	0.040	mg/kg wet	1.65		99	60-130	16	50	
PCB-1260	1.15	0.040	mg/kg wet	1.65		69	60-130	8	50	
Surrogate: Decachlorobiphenyl	*0.353*		*mg/kg wet*	0.329		*107*	*50-140*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3007										
Blank (B2J3007-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Acenaphthene	< 0.050	0.050	mg/kg wet							
Acenaphthylene	< 0.050	0.050	mg/kg wet							
Anthracene	< 0.050	0.050	mg/kg wet							
Benz(a)anthracene	< 0.050	0.050	mg/kg wet							
Benzo(a)pyrene	< 0.050	0.050	mg/kg wet							
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg wet							
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg wet							
2-Chloronaphthalene	< 0.050	0.050	mg/kg wet							
Chrysene	< 0.050	0.050	mg/kg wet							
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg wet							
Fluoranthene	< 0.050	0.050	mg/kg wet							
Fluorene	< 0.050	0.050	mg/kg wet							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg wet							
1-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
2-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
Naphthalene	< 0.050	0.050	mg/kg wet							
Phenanthrene	< 0.050	0.050	mg/kg wet							
Pyrene	< 0.050	0.050	mg/kg wet							
Quinoline	< 0.050	0.050	mg/kg wet							
Surrogate: Acenaphthene-d10	*0.752*		*mg/kg wet*	0.797		*94*	*50-140*			
Surrogate: Chrysene-d12	*0.744*		*mg/kg wet*	0.797		*93*	*50-140*			
Surrogate: Naphthalene-d8	*0.776*		*mg/kg wet*	0.797		*97*	*50-140*			
Surrogate: Perylene-d12	*0.772*		*mg/kg wet*	0.797		*97*	*50-140*			
Surrogate: Phenanthrene-d10	*0.782*		*mg/kg wet*	0.797		*98*	*55-140*			
Blank (B2J3007-BLK2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Acenaphthene	< 0.050	0.050	mg/kg wet							
Acenaphthylene	< 0.050	0.050	mg/kg wet							
Anthracene	< 0.050	0.050	mg/kg wet							
Benz(a)anthracene	< 0.050	0.050	mg/kg wet							
Benzo(a)pyrene	< 0.050	0.050	mg/kg wet							
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3007, Continued										
Blank (B2J3007-BLK2), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg wet							
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg wet							
2-Chloronaphthalene	< 0.050	0.050	mg/kg wet							
Chrysene	< 0.050	0.050	mg/kg wet							
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg wet							
Fluoranthene	< 0.050	0.050	mg/kg wet							
Fluorene	< 0.050	0.050	mg/kg wet							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg wet							
1-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
2-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
Naphthalene	< 0.050	0.050	mg/kg wet							
Phenanthrene	< 0.050	0.050	mg/kg wet							
Pyrene	< 0.050	0.050	mg/kg wet							
Quinoline	< 0.050	0.050	mg/kg wet							
Surrogate: Acenaphthene-d10	*0.655*		*mg/kg wet*	0.762		*86*	*50-140*			
Surrogate: Chrysene-d12	*0.703*		*mg/kg wet*	0.762		*92*	*50-140*			
Surrogate: Naphthalene-d8	*0.650*		*mg/kg wet*	0.762		*85*	*50-140*			
Surrogate: Perylene-d12	*0.658*		*mg/kg wet*	0.762		*86*	*50-140*			
Surrogate: Phenanthrene-d10	*0.677*		*mg/kg wet*	0.762		*89*	*55-140*			
LCS (B2J3007-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Acenaphthene	1.10	0.050	mg/kg wet	0.817		135	50-140			
Acenaphthylene	1.06	0.050	mg/kg wet	0.809		131	50-140			
Anthracene	1.06	0.050	mg/kg wet	0.817		129	50-140			
Benz(a)anthracene	1.04	0.050	mg/kg wet	0.817		127	50-140			
Benzo(a)pyrene	1.06	0.050	mg/kg wet	0.812		131	50-140			
Benzo(b)fluoranthene	0.656	0.050	mg/kg wet	0.811		81	50-140			
Benzo(b+j)fluoranthene	1.62	0.050	mg/kg wet	1.62		100	50-140			
Benzo(g,h,i)perylene	0.937	0.050	mg/kg wet	0.810		116	50-140			
Benzo(k)fluoranthene	0.880	0.050	mg/kg wet	0.816		108	50-140			
2-Chloronaphthalene	1.06	0.050	mg/kg wet	0.809		131	50-140			
Chrysene	1.12	0.050	mg/kg wet	0.808		139	50-140			
Dibenz(a,h)anthracene	0.891	0.050	mg/kg wet	0.821		109	50-140			
Fluoranthene	1.06	0.050	mg/kg wet	0.822		129	50-140			
Fluorene	1.06	0.050	mg/kg wet	0.839		127	50-140			
Indeno(1,2,3-cd)pyrene	0.916	0.050	mg/kg wet	0.812		113	50-140			
1-Methylnaphthalene	1.11	0.050	mg/kg wet	0.812		136	50-140			
2-Methylnaphthalene	1.13	0.050	mg/kg wet	0.814		138	50-140			
Naphthalene	0.974	0.050	mg/kg wet	0.816		119	50-140			
Phenanthrene	1.05	0.050	mg/kg wet	0.811		130	50-140			
Pyrene	1.05	0.050	mg/kg wet	0.822		127	50-140			
Quinoline	1.12	0.050	mg/kg wet	0.822		136	50-140			
Surrogate: Acenaphthene-d10	*0.905*		*mg/kg wet*	0.822		*110*	*50-140*			
Surrogate: Chrysene-d12	*0.978*		*mg/kg wet*	0.822		*119*	*50-140*			
Surrogate: Naphthalene-d8	*0.889*		*mg/kg wet*	0.822		*108*	*50-140*			
Surrogate: Perylene-d12	*0.929*		*mg/kg wet*	0.822		*113*	*50-140*			
Surrogate: Phenanthrene-d10	*0.945*		*mg/kg wet*	0.822		*115*	*55-140*			
LCS (B2J3007-BS3)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Acenaphthene	0.674	0.050	mg/kg wet	0.713		95	50-140			
Acenaphthylene	0.658	0.050	mg/kg wet	0.706		93	50-140			
Anthracene	0.643	0.050	mg/kg wet	0.713		90	50-140			
Benz(a)anthracene	0.646	0.050	mg/kg wet	0.712		91	50-140			
Benzo(a)pyrene	0.618	0.050	mg/kg wet	0.708		87	50-140			
Benzo(b)fluoranthene	0.551	0.050	mg/kg wet	0.707		78	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3007, Continued										
LCS (B2J3007-BS3), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Benzo(b+j)fluoranthene	1.42	0.050	mg/kg wet	1.41		101	50-140			
Benzo(g,h,i)perylene	0.586	0.050	mg/kg wet	0.707		83	50-140			
Benzo(k)fluoranthene	0.616	0.050	mg/kg wet	0.712		87	50-140			
2-Chloronaphthalene	0.655	0.050	mg/kg wet	0.706		93	50-140			
Chrysene	0.695	0.050	mg/kg wet	0.704		99	50-140			
Dibenz(a,h)anthracene	0.495	0.050	mg/kg wet	0.716		69	50-140			
Fluoranthene	0.653	0.050	mg/kg wet	0.717		91	50-140			
Fluorene	0.651	0.050	mg/kg wet	0.732		89	50-140			
Indeno(1,2,3-cd)pyrene	0.522	0.050	mg/kg wet	0.708		74	50-140			
1-Methylnaphthalene	0.681	0.050	mg/kg wet	0.709		96	50-140			
2-Methylnaphthalene	0.689	0.050	mg/kg wet	0.710		97	50-140			
Naphthalene	0.680	0.050	mg/kg wet	0.712		96	50-140			
Phenanthrene	0.647	0.050	mg/kg wet	0.707		91	50-140			
Pyrene	0.633	0.050	mg/kg wet	0.717		88	50-140			
Quinoline	0.922	0.050	mg/kg wet	0.717		129	50-140			
Surrogate: Acenaphthene-d10	*0.569*		*mg/kg wet*	0.717		*79*	*50-140*			
Surrogate: Chrysene-d12	*0.612*		*mg/kg wet*	0.717		*85*	*50-140*			
Surrogate: Naphthalene-d8	*0.553*		*mg/kg wet*	0.717		*77*	*50-140*			
Surrogate: Perylene-d12	*0.536*		*mg/kg wet*	0.717		*75*	*50-140*			
Surrogate: Phenanthrene-d10	*0.588*		*mg/kg wet*	0.717		*82*	*55-140*			
Strong Acid Leachable Metals, Batch B2J3171										
Blank (B2J3171-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	< 2.0	2.0	mg/kg dry							
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	< 0.20	0.20	mg/kg dry							
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2J3171-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Aluminum	185	40	mg/kg dry	200		92	80-120			
Antimony	1.83	0.10	mg/kg dry	2.00		92	80-120			
Arsenic	1.90	0.30	mg/kg dry	2.00		95	80-120			
Barium	1.9	1.0	mg/kg dry	2.00		94	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J3171, Continued										
LCS (B2J3171-BS1), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Beryllium	1.89	0.10	mg/kg dry	2.00		94	80-120			
Boron	2.0	2.0	mg/kg dry	2.00		102	80-120			
Cadmium	1.86	0.040	mg/kg dry	2.00		93	80-120			
Chromium	1.9	1.0	mg/kg dry	2.00		96	80-120			
Cobalt	1.95	0.10	mg/kg dry	2.00		97	80-120			
Copper	1.93	0.40	mg/kg dry	2.00		97	80-120			
Iron	196	20	mg/kg dry	200		98	80-120			
Lead	1.90	0.20	mg/kg dry	2.00		95	80-120			
Lithium	1.84	0.10	mg/kg dry	2.00		92	80-120			
Manganese	1.92	0.40	mg/kg dry	2.00		96	80-120			
Mercury	0.198	0.040	mg/kg dry	0.200		99	80-120			
Molybdenum	1.89	0.10	mg/kg dry	2.00		95	80-120			
Nickel	1.96	0.60	mg/kg dry	2.00		98	80-120			
Selenium	1.96	0.20	mg/kg dry	2.00		98	80-120			
Silver	1.93	0.10	mg/kg dry	2.00		96	80-120			
Strontium	1.98	0.20	mg/kg dry	2.00		99	80-120			
Thallium	1.91	0.10	mg/kg dry	2.00		96	80-120			
Tin	1.94	0.20	mg/kg dry	2.00		97	80-120			
Tungsten	1.89	0.20	mg/kg dry	2.00		95	80-120			
Uranium	1.93	0.050	mg/kg dry	2.00		97	80-120			
Vanadium	1.9	1.0	mg/kg dry	2.00		95	80-120			
Zinc	< 2.0	2.0	mg/kg dry	2.00		93	80-120			
Reference (B2J3171-SRM1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Aluminum	12300	40	mg/kg dry	11500		107	70-130			
Antimony	0.60	0.10	mg/kg dry	0.724		83	70-130			
Arsenic	82.3	0.30	mg/kg dry	82.1		100	70-130			
Barium	41.1	1.0	mg/kg dry	40.0		103	70-130			
Beryllium	0.38	0.10	mg/kg dry	0.369		104	70-130			
Chromium	65.5	1.0	mg/kg dry	63.1		104	70-130			
Cobalt	10.6	0.10	mg/kg dry	10.4		102	70-130			
Copper	19.3	0.40	mg/kg dry	19.8		97	70-130			
Iron	20500	20	mg/kg dry	20200		102	70-130			
Lead	16.7	0.20	mg/kg dry	17.3		96	70-130			
Manganese	320	0.40	mg/kg dry	315		102	70-130			
Mercury	0.130	0.040	mg/kg dry	0.110		118	70-130			
Molybdenum	0.58	0.10	mg/kg dry	0.619		94	70-130			
Nickel	32.1	0.60	mg/kg dry	31.7		101	70-130			
Silver	1.54	0.10	mg/kg dry	1.75		88	70-130			
Strontium	27.0	0.20	mg/kg dry	20.3		133	70-130			MES
Uranium	1.16	0.050	mg/kg dry	1.18		99	70-130			
Vanadium	37.9	1.0	mg/kg dry	33.5		113	70-130			
Zinc	38.3	2.0	mg/kg dry	40.2		95	70-130			
Strong Acid Leachable Metals, Batch B2K0052										
Blank (B2K0052-BLK1)				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	< 2.0	2.0	mg/kg dry							
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2K0052, Continued										
Blank (B2K0052-BLK1), Continued				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	< 0.20	0.20	mg/kg dry							
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2K0052-BS1)				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum	1010	40	mg/kg dry	1000		101	80-120			
Antimony	9.93	0.10	mg/kg dry	10.0		99	80-120			
Arsenic	9.98	0.30	mg/kg dry	10.0		100	80-120			
Barium	9.9	1.0	mg/kg dry	10.0		99	80-120			
Beryllium	10.5	0.10	mg/kg dry	10.0		105	80-120			
Boron	10.6	2.0	mg/kg dry	10.0		106	80-120			
Cadmium	9.97	0.040	mg/kg dry	10.0		100	80-120			
Chromium	10.4	1.0	mg/kg dry	10.0		104	80-120			
Cobalt	10.4	0.10	mg/kg dry	10.0		104	80-120			
Copper	10.1	0.40	mg/kg dry	10.0		101	80-120			
Iron	1020	20	mg/kg dry	1000		102	80-120			
Lead	10.0	0.20	mg/kg dry	10.0		100	80-120			
Lithium	9.92	0.10	mg/kg dry	10.0		99	80-120			
Manganese	10.2	0.40	mg/kg dry	10.0		102	80-120			
Mercury	1.05	0.040	mg/kg dry	1.00		105	80-120			
Molybdenum	10.3	0.10	mg/kg dry	10.0		103	80-120			
Nickel	10.3	0.60	mg/kg dry	10.0		103	80-120			
Selenium	10.1	0.20	mg/kg dry	10.0		101	80-120			
Silver	4.35	0.10	mg/kg dry	10.0		44	80-120			SPK1
Strontium	10.1	0.20	mg/kg dry	10.0		101	80-120			
Thallium	10.0	0.10	mg/kg dry	10.0		100	80-120			
Tin	10.1	0.20	mg/kg dry	10.0		101	80-120			
Tungsten	10.3	0.20	mg/kg dry	10.0		103	80-120			
Uranium	9.72	0.050	mg/kg dry	10.0		97	80-120			
Vanadium	10.4	1.0	mg/kg dry	10.0		104	80-120			
Zinc	10.2	2.0	mg/kg dry	10.0		102	80-120			
Reference (B2K0052-SRM1)				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Aluminum	12000	40	mg/kg dry	11500		105	70-130			
Antimony	0.71	0.10	mg/kg dry	0.724		98	70-130			
Arsenic	86.5	0.30	mg/kg dry	82.1		105	70-130			
Barium	42.1	1.0	mg/kg dry	40.0		105	70-130			
Beryllium	0.37	0.10	mg/kg dry	0.369		102	70-130			
Chromium	67.4	1.0	mg/kg dry	63.1		107	70-130			
Cobalt	10.9	0.10	mg/kg dry	10.4		105	70-130			
Copper	19.9	0.40	mg/kg dry	19.8		101	70-130			
Iron	20800	20	mg/kg dry	20200		103	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2K0052, Continued										
Reference (B2K0052-SRM1), Continued				Prepared: 2022-11-01, Analyzed: 2022-11-01						
Lead	16.6	0.20	mg/kg dry	17.3		96	70-130			
Manganese	324	0.40	mg/kg dry	315		103	70-130			
Mercury	0.120	0.040	mg/kg dry	0.110		109	70-130			
Molybdenum	0.60	0.10	mg/kg dry	0.619		97	70-130			
Nickel	32.9	0.60	mg/kg dry	31.7		104	70-130			
Silver	1.49	0.10	mg/kg dry	1.75		85	70-130			
Strontium	23.2	0.20	mg/kg dry	20.3		114	70-130			
Uranium	1.09	0.050	mg/kg dry	1.18		93	70-130			
Vanadium	37.2	1.0	mg/kg dry	33.5		111	70-130			
Zinc	38.7	2.0	mg/kg dry	40.2		96	70-130			
Volatile Organic Compounds (VOC), Batch B2J2851										
Blank (B2J2851-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-26						
Benzene	< 0.030	0.030	mg/kg wet							
Bromodichloromethane	< 0.100	0.100	mg/kg wet							
Bromoform	< 0.100	0.100	mg/kg wet							
Carbon tetrachloride	< 0.050	0.050	mg/kg wet							
Chlorobenzene	< 0.050	0.050	mg/kg wet							
Chloroform	< 0.050	0.050	mg/kg wet							
Dibromochloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dibromoethane	< 0.100	0.100	mg/kg wet							
Dibromomethane	< 0.100	0.100	mg/kg wet							
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,2-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethylene	< 0.050	0.050	mg/kg wet							
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
Dichloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dichloropropane	< 0.050	0.050	mg/kg wet							
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg wet							
Ethylbenzene	< 0.050	0.050	mg/kg wet							
Methyl tert-butyl ether	< 0.040	0.040	mg/kg wet							
Styrene	< 0.050	0.050	mg/kg wet							
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg wet							
Tetrachloroethylene	< 0.050	0.050	mg/kg wet							
Toluene	< 0.200	0.200	mg/kg wet							
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg wet							
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg wet							
Trichloroethylene	< 0.040	0.040	mg/kg wet							
Trichlorofluoromethane	< 0.100	0.100	mg/kg wet							
Vinyl chloride	< 0.100	0.100	mg/kg wet							
Xylenes (total)	< 0.100	0.100	mg/kg wet							
Surrogate: Toluene-d8	*<*		*mg/kg wet*	4.00			*60-140*			*S02*
Surrogate: 4-Bromofluorobenzene	*4.15*		*mg/kg wet*	3.98		*104*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.73*		*mg/kg wet*	3.98		*94*	*60-140*			
LCS (B2J2851-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-25						
Benzene	2.00	0.030	mg/kg wet	2.00		100	60-140			
Bromodichloromethane	1.98	0.100	mg/kg wet	2.01		98	60-140			
Bromoform	1.79	0.100	mg/kg wet	2.00		90	60-140			
Carbon tetrachloride	2.03	0.050	mg/kg wet	2.01		101	60-140			
Chlorobenzene	2.00	0.050	mg/kg wet	2.01		100	60-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J2851, Continued										
LCS (B2J2851-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-25						
Chloroform	2.12	0.050	mg/kg wet	2.01		106	60-140			
Dibromochloromethane	1.88	0.100	mg/kg wet	2.00		94	60-140			
1,2-Dibromoethane	1.81	0.100	mg/kg wet	2.00		90	60-140			
Dibromomethane	1.95	0.100	mg/kg wet	2.00		98	60-140			
1,2-Dichlorobenzene	1.93	0.050	mg/kg wet	2.01		96	60-140			
1,3-Dichlorobenzene	1.91	0.050	mg/kg wet	2.01		95	60-140			
1,4-Dichlorobenzene	1.90	0.050	mg/kg wet	2.01		94	60-140			
1,1-Dichloroethane	2.22	0.050	mg/kg wet	2.00		111	60-140			
1,2-Dichloroethane	1.87	0.050	mg/kg wet	2.01		93	60-140			
1,1-Dichloroethylene	2.81	0.050	mg/kg wet	2.00		140	60-140			
cis-1,2-Dichloroethylene	2.21	0.050	mg/kg wet	2.00		110	60-140			
trans-1,2-Dichloroethylene	2.52	0.050	mg/kg wet	2.01		125	60-140			
Dichloromethane	2.40	0.100	mg/kg wet	2.01		119	60-140			
1,2-Dichloropropane	1.88	0.050	mg/kg wet	2.01		93	60-140			
1,3-Dichloropropene (cis + trans)	3.56	0.050	mg/kg wet	4.00		89	60-140			
Ethylbenzene	1.80	0.050	mg/kg wet	2.00		90	60-140			
Methyl tert-butyl ether	1.82	0.040	mg/kg wet	2.00		91	60-140			
Styrene	1.56	0.050	mg/kg wet	2.00		78	60-140			
1,1,2,2-Tetrachloroethane	1.82	0.050	mg/kg wet	2.01		91	60-140			
Tetrachloroethylene	2.01	0.050	mg/kg wet	2.00		101	60-140			
Toluene	1.90	0.200	mg/kg wet	2.00		95	60-140			
1,1,1-Trichloroethane	2.02	0.050	mg/kg wet	2.01		101	60-140			
1,1,2-Trichloroethane	1.88	0.050	mg/kg wet	2.01		94	60-140			
Trichloroethylene	2.14	0.040	mg/kg wet	2.01		107	60-140			
Trichlorofluoromethane	2.73	0.100	mg/kg wet	2.00		136	50-150			
Vinyl chloride	4.62	0.100	mg/kg wet	2.00		231	50-150			SPK
Xylenes (total)	5.52	0.100	mg/kg wet	6.00		92	60-140			
Surrogate: Toluene-d8	*3.37*		*mg/kg wet*	4.00		*84*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*4.27*		*mg/kg wet*	3.98		*107*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*4.01*		*mg/kg wet*	3.98		*101*	*60-140*			
Volatile Organic Compounds (VOC), Batch B2J2874										
Blank (B2J2874-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-27						
Benzene	< 0.030	0.030	mg/kg wet							
Bromodichloromethane	< 0.100	0.100	mg/kg wet							
Bromoform	< 0.100	0.100	mg/kg wet							
Carbon tetrachloride	< 0.050	0.050	mg/kg wet							
Chlorobenzene	< 0.050	0.050	mg/kg wet							
Chloroform	< 0.050	0.050	mg/kg wet							
Dibromochloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dibromoethane	< 0.100	0.100	mg/kg wet							
Dibromomethane	< 0.100	0.100	mg/kg wet							
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,2-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethylene	< 0.050	0.050	mg/kg wet							
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
Dichloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dichloropropane	< 0.050	0.050	mg/kg wet							
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg wet							
Ethylbenzene	< 0.050	0.050	mg/kg wet							
Methyl tert-butyl ether	< 0.040	0.040	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J2874, Continued										
Blank (B2J2874-BLK1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-27						
Styrene	< 0.050	0.050	mg/kg wet							
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg wet							
Tetrachloroethylene	< 0.050	0.050	mg/kg wet							
Toluene	< 0.200	0.200	mg/kg wet							
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg wet							
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg wet							
Trichloroethylene	< 0.040	0.040	mg/kg wet							
Trichlorofluoromethane	< 0.100	0.100	mg/kg wet							
Vinyl chloride	< 0.100	0.100	mg/kg wet							
Xylenes (total)	< 0.100	0.100	mg/kg wet							
Surrogate: Toluene-d8	*2.47*		*mg/kg wet*	4.00		*62*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*3.19*		*mg/kg wet*	3.98		*80*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.02*		*mg/kg wet*	4.00		*75*	*60-140*			
LCS (B2J2874-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-27						
Benzene	1.75	0.030	mg/kg wet	2.00		87	60-140			
Bromodichloromethane	1.83	0.100	mg/kg wet	2.01		91	60-140			
Bromoform	1.99	0.100	mg/kg wet	2.00		100	60-140			
Carbon tetrachloride	1.60	0.050	mg/kg wet	2.01		80	60-140			
Chlorobenzene	1.95	0.050	mg/kg wet	2.01		97	60-140			
Chloroform	1.86	0.050	mg/kg wet	2.01		92	60-140			
Dibromochloromethane	1.82	0.100	mg/kg wet	2.00		91	60-140			
1,2-Dibromoethane	1.76	0.100	mg/kg wet	2.00		88	60-140			
Dibromomethane	1.81	0.100	mg/kg wet	2.00		90	60-140			
1,2-Dichlorobenzene	1.96	0.050	mg/kg wet	2.01		98	60-140			
1,3-Dichlorobenzene	1.86	0.050	mg/kg wet	2.01		92	60-140			
1,4-Dichlorobenzene	1.87	0.050	mg/kg wet	2.01		93	60-140			
1,1-Dichloroethane	1.82	0.050	mg/kg wet	2.00		91	60-140			
1,2-Dichloroethane	1.90	0.050	mg/kg wet	2.01		94	60-140			
1,1-Dichloroethylene	1.75	0.050	mg/kg wet	2.00		88	60-140			
cis-1,2-Dichloroethylene	1.80	0.050	mg/kg wet	2.00		90	60-140			
trans-1,2-Dichloroethylene	1.75	0.050	mg/kg wet	2.01		87	60-140			
Dichloromethane	1.95	0.100	mg/kg wet	2.01		97	60-140			
1,2-Dichloropropane	1.74	0.050	mg/kg wet	2.01		86	60-140			
1,3-Dichloropropene (cis + trans)	3.32	0.050	mg/kg wet	4.00		83	60-140			
Ethylbenzene	1.74	0.050	mg/kg wet	2.00		87	60-140			
Methyl tert-butyl ether	1.72	0.040	mg/kg wet	2.00		86	60-140			
Styrene	1.30	0.050	mg/kg wet	2.00		65	60-140			
1,1,2,2-Tetrachloroethane	2.19	0.050	mg/kg wet	2.01		109	60-140			
Tetrachloroethylene	1.65	0.050	mg/kg wet	2.00		83	60-140			
Toluene	1.67	0.200	mg/kg wet	2.00		84	60-140			
1,1,1-Trichloroethane	1.65	0.050	mg/kg wet	2.01		82	60-140			
1,1,2-Trichloroethane	1.82	0.050	mg/kg wet	2.01		91	60-140			
Trichloroethylene	1.69	0.040	mg/kg wet	2.01		84	60-140			
Trichlorofluoromethane	1.72	0.100	mg/kg wet	2.00		86	50-150			
Vinyl chloride	2.11	0.100	mg/kg wet	2.00		106	50-150			
Xylenes (total)	5.22	0.100	mg/kg wet	6.00		87	60-140			
Surrogate: Toluene-d8	*3.20*		*mg/kg wet*	4.00		*80*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*3.62*		*mg/kg wet*	3.98		*91*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.49*		*mg/kg wet*	4.00		*87*	*60-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

QC Qualifiers:

MES	A number up to 10% (rounded down) of the analytes in a Multi-Element Scan may exceed control limits by up to 10% (absolute).
MIC29	The difference in logs is less than the R value.
S02	Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.
SPK	The recovery of this analyte was outside of established control limits.
SPK1	The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2737
PROJECT	690667	**REPORTED**	2022-11-29 14:08

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2737-01	2022-11-29	Sample ID	N/A	N/A
22J2737-02	2022-11-29	Sample ID	N/A	N/A
22J2737-03	2022-11-29	Sample ID	N/A	N/A
22J2737-04	2022-11-29	Sample ID	N/A	N/A
22J2737-05	2022-11-29	Sample ID	N/A	N/A

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2845
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-21 15:36 / 3.6°C
PROJECT	690667	**REPORTED**	2023-01-20 15:33
PROJECT INFO	Flood Disaster Recovery, Merritt	**COC NUMBER**	No Number

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: YES

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-2-221020 (22J2845-01) | Matrix: Water | Sampled: 2022-10-20 14:09					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
Surrogate: 2-Methylnonane (EPH/F2-4)	*97*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**140**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, dissolved	**0.00079**	0.00050	mg/L	2022-10-26	
Barium, dissolved	**0.0425**	0.0050	mg/L	2022-10-26	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, dissolved	**35.3**	0.20	mg/L	2022-10-26	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, dissolved	**0.00142**	0.00040	mg/L	2022-10-26	
Iron, dissolved	**0.015**	0.010	mg/L	2022-10-26	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, dissolved	**0.00145**	0.00010	mg/L	2022-10-26	
Magnesium, dissolved	**12.5**	0.010	mg/L	2022-10-26	
Manganese, dissolved	**0.0120**	0.00020	mg/L	2022-10-26	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, dissolved	**0.00202**	0.00010	mg/L	2022-10-26	
Nickel, dissolved	**0.00060**	0.00040	mg/L	2022-10-26	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-26	
Potassium, dissolved	**2.62**	0.10	mg/L	2022-10-26	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, dissolved	**2.8**	1.0	mg/L	2022-10-26	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, dissolved	**12.6**	0.10	mg/L	2022-10-26	
Strontium, dissolved	**0.217**	0.0010	mg/L	2022-10-26	
Sulfur, dissolved	**8.8**	3.0	mg/L	2022-10-26	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-26	
Uranium, dissolved	**0.000887**	0.000020	mg/L	2022-10-26	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	

CARO ANALYTICAL SERVICES

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-2-221020 (22J2845-01) | Matrix: Water | Sampled: 2022-10-20 14:09, Continued					
Dissolved Metals, Continued					
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
General Parameters					
Carbon, Total Organic	**6.28**	0.50	mg/L	2022-10-26	
Carbon, Dissolved Organic	**5.76**	0.50	mg/L	2022-10-26	
pH	**8.02**	0.10	pH units	2022-10-27	HT2
Solids, Total Dissolved	**237**	15	mg/L	2022-10-27	
Solids, Total Suspended	< 2.0	2.0	mg/L	2022-10-27	
Turbidity	**0.65**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**770**	1	MPN/100 mL	2022-10-21	
Coliforms, Fecal (Q-Tray)	**14**	1	MPN/100 mL	2022-10-21	
E. coli (Q-Tray)	**14**	1	MPN/100 mL	2022-10-21	
Total Metals					
Aluminum, total	**0.0231**	0.0050	mg/L	2022-10-26	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, total	**0.00080**	0.00050	mg/L	2022-10-26	
Barium, total	**0.0392**	0.0050	mg/L	2022-10-26	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, total	**43.4**	0.20	mg/L	2022-10-26	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, total	**0.00159**	0.00040	mg/L	2022-10-26	
Iron, total	**0.042**	0.010	mg/L	2022-10-26	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, total	**0.00131**	0.00010	mg/L	2022-10-26	
Magnesium, total	**13.5**	0.010	mg/L	2022-10-26	
Manganese, total	**0.0152**	0.00020	mg/L	2022-10-26	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, total	**0.00221**	0.00010	mg/L	2022-10-26	
Nickel, total	**0.00064**	0.00040	mg/L	2022-10-26	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-26	
Potassium, total	**2.86**	0.10	mg/L	2022-10-26	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, total	**2.9**	1.0	mg/L	2022-10-26	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, total	**13.6**	0.10	mg/L	2022-10-26	
Strontium, total	**0.214**	0.0010	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-2-221020 (22J2845-01) | Matrix: Water | Sampled: 2022-10-20 14:09, Continued					
Total Metals, Continued					
Sulfur, total	**9.5**	3.0	mg/L	2022-10-26	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-26	
Uranium, total	**0.000988**	0.000020	mg/L	2022-10-26	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-26	
SW22-HH1-4-221020 (22J2845-02) | Matrix: Water | Sampled: 2022-10-20 16:41					
Anions					
Chloride	**7.87**	0.10	mg/L	2022-10-23	
Nitrate (as N)	< 0.010	0.010	mg/L	2022-10-23	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-23	
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-23	
Sulfate	**24.9**	1.0	mg/L	2022-10-23	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*100*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**151**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	0.0100	mg/L	N/A	
Nitrogen, Total	**0.221**	0.0500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, dissolved	**0.00061**	0.00050	mg/L	2022-10-26	
Barium, dissolved	**0.0349**	0.0050	mg/L	2022-10-26	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, dissolved	**41.4**	0.20	mg/L	2022-10-26	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-4-221020 (22J2845-02) | Matrix: Water | Sampled: 2022-10-20 16:41, Continued					
Dissolved Metals, Continued					
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, dissolved	**0.00118**	0.00040	mg/L	2022-10-26	
Iron, dissolved	< 0.010	0.010	mg/L	2022-10-26	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, dissolved	**0.00107**	0.00010	mg/L	2022-10-26	
Magnesium, dissolved	**11.7**	0.010	mg/L	2022-10-26	
Manganese, dissolved	**0.00755**	0.00020	mg/L	2022-10-26	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, dissolved	**0.00182**	0.00010	mg/L	2022-10-26	
Nickel, dissolved	**0.00042**	0.00040	mg/L	2022-10-26	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-26	
Potassium, dissolved	**2.28**	0.10	mg/L	2022-10-26	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, dissolved	**3.4**	1.0	mg/L	2022-10-26	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, dissolved	**12.0**	0.10	mg/L	2022-10-26	
Strontium, dissolved	**0.210**	0.0010	mg/L	2022-10-26	
Sulfur, dissolved	**7.9**	3.0	mg/L	2022-10-26	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-26	
Uranium, dissolved	**0.000866**	0.000020	mg/L	2022-10-26	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
General Parameters					
Carbon, Total Organic	**4.76**	0.50	mg/L	2022-10-26	
Carbon, Dissolved Organic	**4.72**	0.50	mg/L	2022-10-26	
Nitrogen, Total Kjeldahl	**0.221**	0.050	mg/L	2022-10-28	
pH	**8.13**	0.10	pH units	2022-10-27	HT2
Phosphorus, Total (as P)	**0.0173**	0.0050	mg/L	2022-10-28	
Solids, Total Dissolved	**223**	15	mg/L	2022-10-27	
Solids, Total Suspended	**9.6**	2.0	mg/L	2022-10-27	
Turbidity	**1.08**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**548**	1	MPN/100 mL	2022-10-21	
Coliforms, Fecal (Q-Tray)	**8**	1	MPN/100 mL	2022-10-21	
E. coli (Q-Tray)	**5**	1	MPN/100 mL	2022-10-21	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-4-221020 (22J2845-02) | Matrix: Water | Sampled: 2022-10-20 16:41, Continued					
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-04	
Aldrin	< 0.006	0.006	µg/L	2022-11-04	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-04	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-04	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-04	
beta-BHC	< 0.050	0.050	µg/L	2022-11-04	
delta-BHC	< 0.050	0.050	µg/L	2022-11-04	
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-04	
Bromacil	< 0.100	0.100	µg/L	2022-11-04	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-04	
Butachlor	< 0.020	0.020	µg/L	2022-11-04	
Captan	< 0.100	0.100	µg/L	2022-11-04	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-04	
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-04	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-04	
Cyanazine	< 0.100	0.100	µg/L	2022-11-04	
DDT, Total	< 0.010	0.010	µg/L	2022-11-04	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-04	
Diazinon	< 0.020	0.020	µg/L	2022-11-04	
Dichlorvos	< 0.100	0.100	µg/L	2022-11-04	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-04	
Dieldrin	< 0.010	0.010	µg/L	2022-11-04	
Dimethoate	< 0.200	0.200	µg/L	2022-11-04	
Disulfoton	< 0.100	0.100	µg/L	2022-11-04	
Diuron	< 0.200	0.200	µg/L	2022-11-04	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-04	
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-04	
Endrin	< 0.020	0.020	µg/L	2022-11-04	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-04	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-04	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-04	
Heptachlor	< 0.010	0.010	µg/L	2022-11-04	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-04	
Linuron	< 0.050	0.050	µg/L	2022-11-04	
Malathion	< 0.100	0.100	µg/L	2022-11-04	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-04	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-04	
Metolachlor	< 0.100	0.100	µg/L	2022-11-04	
Metribuzin	< 0.200	0.200	µg/L	2022-11-04	
Parathion	< 0.100	0.100	µg/L	2022-11-04	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-04	
Permethrin	< 0.010	0.010	µg/L	2022-11-04	
Phorate	< 0.100	0.100	µg/L	2022-11-04	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-4-221020 (22J2845-02) | Matrix: Water | Sampled: 2022-10-20 16:41, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Prometon	< 0.300	0.300	µg/L	2022-11-04	
Prometryne	< 0.100	0.100	µg/L	2022-11-04	
Simazine	< 0.200	0.200	µg/L	2022-11-04	
Sulfotep	< 0.100	0.100	µg/L	2022-11-04	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-04	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-04	
Terbufos	< 0.100	0.100	µg/L	2022-11-04	
Triallate	< 0.100	0.100	µg/L	2022-11-04	
Trifluralin	< 0.200	0.200	µg/L	2022-11-04	
Surrogate: Tributyl Phosphate	*71*	*50-140*	%	*2022-11-04*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*63*	*50-140*	%	*2022-11-04*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-28	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-28	
Acridine	< 0.050	0.050	µg/L	2022-10-28	
Anthracene	< 0.010	0.010	µg/L	2022-10-28	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-28	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-28	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-28	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-28	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-28	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-28	
Chrysene	< 0.050	0.050	µg/L	2022-10-28	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-28	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-28	
Fluorene	< 0.050	0.050	µg/L	2022-10-28	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-28	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-28	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-28	
Naphthalene	< 0.200	0.200	µg/L	2022-10-28	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-28	
Pyrene	< 0.020	0.020	µg/L	2022-10-28	
Quinoline	< 0.050	0.050	µg/L	2022-10-28	
Surrogate: Acridine-d9	*73*	*50-140*	%	*2022-10-28*	
Surrogate: Naphthalene-d8	*85*	*50-140*	%	*2022-10-28*	
Surrogate: Perylene-d12	*124*	*50-140*	%	*2022-10-28*	
Total Metals					
Aluminum, total	**0.265**	0.0050	mg/L	2022-10-26	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, total	**0.00067**	0.00050	mg/L	2022-10-26	
Barium, total	**0.0356**	0.0050	mg/L	2022-10-26	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-4-221020 (22J2845-02) | Matrix: Water | Sampled: 2022-10-20 16:41, Continued					
Total Metals, Continued					
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, total	**41.3**	0.20	mg/L	2022-10-26	
Chromium, total	**0.00059**	0.00050	mg/L	2022-10-26	
Cobalt, total	**0.00020**	0.00010	mg/L	2022-10-26	
Copper, total	**0.00190**	0.00040	mg/L	2022-10-26	
Iron, total	**0.268**	0.010	mg/L	2022-10-26	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, total	**0.00115**	0.00010	mg/L	2022-10-26	
Magnesium, total	**12.7**	0.010	mg/L	2022-10-26	
Manganese, total	**0.0194**	0.00020	mg/L	2022-10-26	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, total	**0.00188**	0.00010	mg/L	2022-10-26	
Nickel, total	**0.00090**	0.00040	mg/L	2022-10-26	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-26	
Potassium, total	**2.34**	0.10	mg/L	2022-10-26	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, total	**3.9**	1.0	mg/L	2022-10-26	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, total	**12.3**	0.10	mg/L	2022-10-26	
Strontium, total	**0.207**	0.0010	mg/L	2022-10-26	
Sulfur, total	**8.0**	3.0	mg/L	2022-10-26	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, total	**0.0117**	0.0050	mg/L	2022-10-26	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-26	
Uranium, total	**0.000914**	0.000020	mg/L	2022-10-26	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, total	**0.00015**	0.00010	mg/L	2022-10-26	
SW22-HH1-5-221021 (22J2845-03) | Matrix: Water | Sampled: 2022-10-21 09:23					
Calculated Parameters					
Hardness, Total (as CaCO3)	**158**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, dissolved	**0.00065**	0.00050	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-5-221021 (22J2845-03) | Matrix: Water | Sampled: 2022-10-21 09:23, Continued					
Dissolved Metals, Continued					
Barium, dissolved	**0.0338**	0.0050	mg/L	2022-10-26	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, dissolved	**43.5**	0.20	mg/L	2022-10-26	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, dissolved	**0.00205**	0.00040	mg/L	2022-10-26	
Iron, dissolved	< 0.010	0.010	mg/L	2022-10-26	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, dissolved	**0.00115**	0.00010	mg/L	2022-10-26	
Magnesium, dissolved	**12.0**	0.010	mg/L	2022-10-26	
Manganese, dissolved	**0.00394**	0.00020	mg/L	2022-10-26	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, dissolved	**0.00202**	0.00010	mg/L	2022-10-26	
Nickel, dissolved	**0.00054**	0.00040	mg/L	2022-10-26	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-26	
Potassium, dissolved	**2.15**	0.10	mg/L	2022-10-26	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, dissolved	**3.6**	1.0	mg/L	2022-10-26	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, dissolved	**12.3**	0.10	mg/L	2022-10-26	
Strontium, dissolved	**0.210**	0.0010	mg/L	2022-10-26	
Sulfur, dissolved	**8.1**	3.0	mg/L	2022-10-26	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-26	
Uranium, dissolved	**0.000946**	0.000020	mg/L	2022-10-26	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
General Parameters					
Carbon, Total Organic	**5.04**	0.50	mg/L	2022-10-26	
Carbon, Dissolved Organic	**5.03**	0.50	mg/L	2022-10-26	
pH	**8.26**	0.10	pH units	2022-10-27	HT2
Solids, Total Dissolved	**225**	15	mg/L	2022-10-27	
Solids, Total Suspended	**7.8**	2.0	mg/L	2022-10-27	
Turbidity	**2.75**	0.10	NTU	2023-01-19	HT1

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-5-221021 (22J2845-03) | Matrix: Water | Sampled: 2022-10-21 09:23, Continued					
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**345**	1	MPN/100 mL	2022-10-21	
Coliforms, Fecal (Q-Tray)	**18**	1	MPN/100 mL	2022-10-21	
E. coli (Q-Tray)	**11**	1	MPN/100 mL	2022-10-21	
Total Metals					
Aluminum, total	**0.203**	0.0050	mg/L	2022-10-26	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, total	**0.00069**	0.00050	mg/L	2022-10-26	
Barium, total	**0.0323**	0.0050	mg/L	2022-10-26	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, total	**42.7**	0.20	mg/L	2022-10-26	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, total	**0.00016**	0.00010	mg/L	2022-10-26	
Copper, total	**0.00187**	0.00040	mg/L	2022-10-26	
Iron, total	**0.200**	0.010	mg/L	2022-10-26	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, total	**0.00120**	0.00010	mg/L	2022-10-26	
Magnesium, total	**12.1**	0.010	mg/L	2022-10-26	
Manganese, total	**0.0148**	0.00020	mg/L	2022-10-26	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, total	**0.00209**	0.00010	mg/L	2022-10-26	
Nickel, total	**0.00071**	0.00040	mg/L	2022-10-26	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-26	
Potassium, total	**2.16**	0.10	mg/L	2022-10-26	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, total	**3.9**	1.0	mg/L	2022-10-26	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, total	**12.4**	0.10	mg/L	2022-10-26	
Strontium, total	**0.208**	0.0010	mg/L	2022-10-26	
Sulfur, total	**8.0**	3.0	mg/L	2022-10-26	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, total	**0.0095**	0.0050	mg/L	2022-10-26	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-26	
Uranium, total	**0.000995**	0.000020	mg/L	2022-10-26	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, total	**0.00017**	0.00010	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-EH1-5-221021 (22J2845-04) | Matrix: Water | Sampled: 2022-10-21 09:59					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
Surrogate: 2-Methylnonane (EPH/F2-4)	*98*	*60-140*	%	*2022-10-28*	
SW22-CC1-1-221021 (22J2845-05) | Matrix: Water | Sampled: 2022-10-21 08:44					
Anions					
Chloride	**7.38**	0.10	mg/L	2022-10-24	
Nitrate (as N)	< 0.010	0.010	mg/L	2022-10-24	
Nitrite (as N)	< 0.010	0.010	mg/L	2022-10-24	
Phosphate (as P)	< 0.0050	0.0050	mg/L	2022-10-24	
Sulfate	**24.8**	1.0	mg/L	2022-10-24	
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*97*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**159**	0.500	mg/L	N/A	
Nitrate+Nitrite (as N)	< 0.0100	0.0100	mg/L	N/A	
Nitrogen, Total	**0.196**	0.0500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, dissolved	**0.00071**	0.00050	mg/L	2022-10-26	
Barium, dissolved	**0.0329**	0.0050	mg/L	2022-10-26	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, dissolved	**43.2**	0.20	mg/L	2022-10-26	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, dissolved	**0.00133**	0.00040	mg/L	2022-10-26	
Iron, dissolved	< 0.010	0.010	mg/L	2022-10-26	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, dissolved	**0.00114**	0.00010	mg/L	2022-10-26	
Magnesium, dissolved	**12.5**	0.010	mg/L	2022-10-26	
Manganese, dissolved	**0.00392**	0.00020	mg/L	2022-10-26	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-1-221021 (22J2845-05) | Matrix: Water | Sampled: 2022-10-21 08:44, Continued					
Dissolved Metals, Continued					
Molybdenum, dissolved	**0.00200**	0.00010	mg/L	2022-10-26	
Nickel, dissolved	**0.00043**	0.00040	mg/L	2022-10-26	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-26	
Potassium, dissolved	**2.18**	0.10	mg/L	2022-10-26	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, dissolved	**3.6**	1.0	mg/L	2022-10-26	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, dissolved	**12.5**	0.10	mg/L	2022-10-26	
Strontium, dissolved	**0.214**	0.0010	mg/L	2022-10-26	
Sulfur, dissolved	**7.8**	3.0	mg/L	2022-10-26	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-26	
Uranium, dissolved	**0.000951**	0.000020	mg/L	2022-10-26	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
General Parameters					
Carbon, Total Organic	**4.63**	0.50	mg/L	2022-10-26	
Carbon, Dissolved Organic	**4.61**	0.50	mg/L	2022-10-26	
Nitrogen, Total Kjeldahl	**0.196**	0.050	mg/L	2022-10-28	
pH	**8.06**	0.10	pH units	2022-10-28	HT2
Phosphorus, Total (as P)	**0.0233**	0.0050	mg/L	2022-10-28	
Solids, Total Dissolved	**213**	15	mg/L	2022-10-27	
Solids, Total Suspended	**11.0**	2.0	mg/L	2022-10-27	
Turbidity	**3.96**	0.10	NTU	2023-01-19	HT1
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**727**	1	MPN/100 mL	2022-10-21	
Coliforms, Fecal (Q-Tray)	**16**	1	MPN/100 mL	2022-10-21	
E. coli (Q-Tray)	**16**	1	MPN/100 mL	2022-10-21	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.100	0.100	µg/L	2022-11-04	
Aldrin	< 0.006	0.006	µg/L	2022-11-04	
Atrazine and metabolites	< 0.100	0.100	µg/L	2022-11-04	
Azinphos-methyl	< 0.200	0.200	µg/L	2022-11-04	
alpha-BHC	< 0.010	0.010	µg/L	2022-11-04	
beta-BHC	< 0.050	0.050	µg/L	2022-11-04	
delta-BHC	< 0.050	0.050	µg/L	2022-11-04	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-1-221021 (22J2845-05) | Matrix: Water | Sampled: 2022-10-21 08:44, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
gamma-BHC (Lindane)	< 0.050	0.050	µg/L	2022-11-04	
Bromacil	< 0.100	0.100	µg/L	2022-11-04	
Bromoxynil	< 0.200	0.200	µg/L	2022-11-04	
Butachlor	< 0.020	0.020	µg/L	2022-11-04	
Captan	< 0.100	0.100	µg/L	2022-11-04	
Chlordane (cis + trans)	< 0.050	0.050	µg/L	2022-11-04	
Chlorothalonil	< 0.050	0.050	µg/L	2022-11-04	
Chlorpyrifos	< 0.010	0.010	µg/L	2022-11-04	
Cyanazine	< 0.100	0.100	µg/L	2022-11-04	
DDT, Total	< 0.010	0.010	µg/L	2022-11-04	
Deltamethrin	< 0.100	0.100	µg/L	2022-11-04	
Diazinon	< 0.020	0.020	µg/L	2022-11-04	
Dichlorvos	< 0.100	0.100	µg/L	2022-11-04	
Diclofop-methyl	< 0.100	0.100	µg/L	2022-11-04	
Dieldrin	< 0.010	0.010	µg/L	2022-11-04	
Dimethoate	< 0.200	0.200	µg/L	2022-11-04	
Disulfoton	< 0.100	0.100	µg/L	2022-11-04	
Diuron	< 0.200	0.200	µg/L	2022-11-04	
Endosulfan I + II	< 0.010	0.010	µg/L	2022-11-04	
Endosulfan sulfate	< 0.050	0.050	µg/L	2022-11-04	
Endrin	< 0.020	0.020	µg/L	2022-11-04	
Endrin aldehyde	< 0.020	0.020	µg/L	2022-11-04	
Endrin ketone	< 0.020	0.020	µg/L	2022-11-04	
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L	2022-11-04	
Heptachlor	< 0.010	0.010	µg/L	2022-11-04	
Heptachlor epoxide	< 0.010	0.010	µg/L	2022-11-04	
Linuron	< 0.050	0.050	µg/L	2022-11-04	
Malathion	< 0.100	0.100	µg/L	2022-11-04	
Methoxychlor	< 0.050	0.050	µg/L	2022-11-04	
Methyl parathion	< 0.100	0.100	µg/L	2022-11-04	
Metolachlor	< 0.100	0.100	µg/L	2022-11-04	
Metribuzin	< 0.200	0.200	µg/L	2022-11-04	
Parathion	< 0.100	0.100	µg/L	2022-11-04	
Pentachloronitrobenzene	< 0.100	0.100	µg/L	2022-11-04	
Permethrin	< 0.010	0.010	µg/L	2022-11-04	
Phorate	< 0.100	0.100	µg/L	2022-11-04	
Prometon	< 0.300	0.300	µg/L	2022-11-04	
Prometryne	< 0.100	0.100	µg/L	2022-11-04	
Simazine	< 0.200	0.200	µg/L	2022-11-04	
Sulfotep	< 0.100	0.100	µg/L	2022-11-04	
Tebuthiuron	< 0.200	0.200	µg/L	2022-11-04	
Temephos (Abate)	< 0.500	0.500	µg/L	2022-11-04	
Terbufos	< 0.100	0.100	µg/L	2022-11-04	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-1-221021 (22J2845-05) | Matrix: Water | Sampled: 2022-10-21 08:44, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Triallate	< 0.100	0.100	µg/L	2022-11-04	
Trifluralin	< 0.200	0.200	µg/L	2022-11-04	
Surrogate: Tributyl Phosphate	*76*	*50-140*	%	*2022-11-04*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*67*	*50-140*	%	*2022-11-04*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-28	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-28	
Acridine	< 0.050	0.050	µg/L	2022-10-28	
Anthracene	< 0.010	0.010	µg/L	2022-10-28	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-28	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-28	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-28	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-28	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-28	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-28	
Chrysene	< 0.050	0.050	µg/L	2022-10-28	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-28	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-28	
Fluorene	< 0.050	0.050	µg/L	2022-10-28	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-28	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-28	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-28	
Naphthalene	< 0.200	0.200	µg/L	2022-10-28	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-28	
Pyrene	< 0.020	0.020	µg/L	2022-10-28	
Quinoline	< 0.050	0.050	µg/L	2022-10-28	
Surrogate: Acridine-d9	*73*	*50-140*	%	*2022-10-28*	
Surrogate: Naphthalene-d8	*86*	*50-140*	%	*2022-10-28*	
Surrogate: Perylene-d12	*122*	*50-140*	%	*2022-10-28*	
Total Metals					
Aluminum, total	**0.191**	0.0050	mg/L	2022-10-26	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, total	**0.00063**	0.00050	mg/L	2022-10-26	
Barium, total	**0.0328**	0.0050	mg/L	2022-10-26	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, total	**43.5**	0.20	mg/L	2022-10-26	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, total	**0.00016**	0.00010	mg/L	2022-10-26	
Copper, total	**0.00177**	0.00040	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-1-221021 (22J2845-05) | Matrix: Water | Sampled: 2022-10-21 08:44, Continued					
Total Metals, Continued					
Iron, total	**0.197**	0.010	mg/L	2022-10-26	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, total	**0.00118**	0.00010	mg/L	2022-10-26	
Magnesium, total	**12.5**	0.010	mg/L	2022-10-26	
Manganese, total	**0.0145**	0.00020	mg/L	2022-10-26	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, total	**0.00201**	0.00010	mg/L	2022-10-26	
Nickel, total	**0.00075**	0.00040	mg/L	2022-10-26	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-26	
Potassium, total	**2.19**	0.10	mg/L	2022-10-26	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, total	**3.9**	1.0	mg/L	2022-10-26	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, total	**12.8**	0.10	mg/L	2022-10-26	
Strontium, total	**0.210**	0.0010	mg/L	2022-10-26	
Sulfur, total	**8.0**	3.0	mg/L	2022-10-26	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, total	**0.0083**	0.0050	mg/L	2022-10-26	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-26	
Uranium, total	**0.000982**	0.000020	mg/L	2022-10-26	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, total	**0.00022**	0.00010	mg/L	2022-10-26	
SW22-CC1-3-221021 (22J2845-06) | Matrix: Water | Sampled: 2022-10-21 10:52					
BCMOE Aggregate Hydrocarbons					
VHw (6-10)	< 100	100	µg/L	2022-10-28	
VPHw	< 100	100	µg/L	N/A	
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
LEPHw	< 250	250	µg/L	N/A	
HEPHw	< 250	250	µg/L	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*97*	*60-140*	%	*2022-10-28*	
Calculated Parameters					
Hardness, Total (as CaCO3)	**156**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-3-221021 (22J2845-06) | Matrix: Water | Sampled: 2022-10-21 10:52, Continued					
Dissolved Metals, Continued					
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, dissolved	**0.00070**	0.00050	mg/L	2022-10-26	
Barium, dissolved	**0.0338**	0.0050	mg/L	2022-10-26	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, dissolved	**42.6**	0.20	mg/L	2022-10-26	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, dissolved	**0.00123**	0.00040	mg/L	2022-10-26	
Iron, dissolved	< 0.010	0.010	mg/L	2022-10-26	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, dissolved	**0.00108**	0.00010	mg/L	2022-10-26	
Magnesium, dissolved	**11.9**	0.010	mg/L	2022-10-26	
Manganese, dissolved	**0.00464**	0.00020	mg/L	2022-10-26	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, dissolved	**0.00196**	0.00010	mg/L	2022-10-26	
Nickel, dissolved	**0.00041**	0.00040	mg/L	2022-10-26	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-26	
Potassium, dissolved	**2.15**	0.10	mg/L	2022-10-26	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, dissolved	**3.8**	1.0	mg/L	2022-10-26	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, dissolved	**12.0**	0.10	mg/L	2022-10-26	
Strontium, dissolved	**0.206**	0.0010	mg/L	2022-10-26	
Sulfur, dissolved	**7.7**	3.0	mg/L	2022-10-26	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-26	
Uranium, dissolved	**0.000946**	0.000020	mg/L	2022-10-26	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
General Parameters					
Carbon, Total Organic	**4.70**	0.50	mg/L	2022-10-26	
Carbon, Dissolved Organic	**4.61**	0.50	mg/L	2022-10-26	
pH	**8.14**	0.10	pH units	2022-10-28	HT2
Solids, Total Dissolved	**221**	15	mg/L	2022-10-27	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-3-221021 (22J2845-06) | Matrix: Water | Sampled: 2022-10-21 10:52, Continued					
General Parameters, Continued					
Solids, Total Suspended	**10.2**	2.0	mg/L	2022-10-27	
Turbidity	**2.42**	0.10	NTU	2023-01-19	HT1
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	µg/L	2022-10-28	
Acenaphthylene	< 0.200	0.200	µg/L	2022-10-28	
Acridine	< 0.050	0.050	µg/L	2022-10-28	
Anthracene	< 0.010	0.010	µg/L	2022-10-28	
Benz(a)anthracene	< 0.010	0.010	µg/L	2022-10-28	
Benzo(a)pyrene	< 0.010	0.010	µg/L	2022-10-28	
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L	2022-10-28	
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L	2022-10-28	
Benzo(k)fluoranthene	< 0.050	0.050	µg/L	2022-10-28	
2-Chloronaphthalene	< 0.100	0.100	µg/L	2022-10-28	
Chrysene	< 0.050	0.050	µg/L	2022-10-28	
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L	2022-10-28	
Fluoranthene	< 0.030	0.030	µg/L	2022-10-28	
Fluorene	< 0.050	0.050	µg/L	2022-10-28	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L	2022-10-28	
1-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-28	
2-Methylnaphthalene	< 0.100	0.100	µg/L	2022-10-28	
Naphthalene	< 0.200	0.200	µg/L	2022-10-28	
Phenanthrene	< 0.100	0.100	µg/L	2022-10-28	
Pyrene	< 0.020	0.020	µg/L	2022-10-28	
Quinoline	< 0.050	0.050	µg/L	2022-10-28	
Surrogate: Acridine-d9	*75*	*50-140*	%	*2022-10-28*	
Surrogate: Naphthalene-d8	*99*	*50-140*	%	*2022-10-28*	
Surrogate: Perylene-d12	*127*	*50-140*	%	*2022-10-28*	
Total Metals					
Aluminum, total	**0.196**	0.0050	mg/L	2022-10-26	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, total	**0.00071**	0.00050	mg/L	2022-10-26	
Barium, total	**0.0332**	0.0050	mg/L	2022-10-26	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, total	**42.1**	0.20	mg/L	2022-10-26	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, total	**0.00018**	0.00010	mg/L	2022-10-26	
Copper, total	**0.00185**	0.00040	mg/L	2022-10-26	
Iron, total	**0.215**	0.010	mg/L	2022-10-26	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-3-221021 (22J2845-06) | Matrix: Water | Sampled: 2022-10-21 10:52, Continued					
Total Metals, Continued					
Lithium, total	**0.00116**	0.00010	mg/L	2022-10-26	
Magnesium, total	**12.6**	0.010	mg/L	2022-10-26	
Manganese, total	**0.0156**	0.00020	mg/L	2022-10-26	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, total	**0.00200**	0.00010	mg/L	2022-10-26	
Nickel, total	**0.00078**	0.00040	mg/L	2022-10-26	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-26	
Potassium, total	**2.23**	0.10	mg/L	2022-10-26	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, total	**4.1**	1.0	mg/L	2022-10-26	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, total	**12.7**	0.10	mg/L	2022-10-26	
Strontium, total	**0.206**	0.0010	mg/L	2022-10-26	
Sulfur, total	**7.6**	3.0	mg/L	2022-10-26	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, total	**0.0090**	0.0050	mg/L	2022-10-26	
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-26	
Uranium, total	**0.000992**	0.000020	mg/L	2022-10-26	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, total	**0.00019**	0.00010	mg/L	2022-10-26	
Volatile Organic Compounds (VOC)					
Benzene	< 0.5	0.5	µg/L	2022-10-28	
Bromodichloromethane	< 1.0	1.0	µg/L	2022-10-28	
Bromoform	< 1.0	1.0	µg/L	2022-10-28	
Carbon tetrachloride	< 0.5	0.5	µg/L	2022-10-28	
Chlorobenzene	< 1.0	1.0	µg/L	2022-10-28	
Chloroethane	< 2.0	2.0	µg/L	2022-10-28	
Chloroform	< 1.0	1.0	µg/L	2022-10-28	
Dibromochloromethane	< 1.0	1.0	µg/L	2022-10-28	
1,2-Dibromoethane	< 0.3	0.3	µg/L	2022-10-28	
Dibromomethane	< 1.0	1.0	µg/L	2022-10-28	
1,2-Dichlorobenzene	< 0.5	0.5	µg/L	2022-10-28	
1,3-Dichlorobenzene	< 1.0	1.0	µg/L	2022-10-28	
1,4-Dichlorobenzene	< 1.0	1.0	µg/L	2022-10-28	
1,1-Dichloroethane	< 1.0	1.0	µg/L	2022-10-28	
1,2-Dichloroethane	< 1.0	1.0	µg/L	2022-10-28	
1,1-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-28	
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-28	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-CC1-3-221021 (22J2845-06) | Matrix: Water | Sampled: 2022-10-21 10:52, Continued					
Volatile Organic Compounds (VOC), Continued					
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L	2022-10-28	
Dichloromethane	< 3.0	3.0	µg/L	2022-10-28	
1,2-Dichloropropane	< 1.0	1.0	µg/L	2022-10-28	
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L	2022-10-28	
Ethylbenzene	< 1.0	1.0	µg/L	2022-10-28	
Methyl tert-butyl ether	< 1.0	1.0	µg/L	2022-10-28	
Styrene	< 1.0	1.0	µg/L	2022-10-28	
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L	2022-10-28	
Tetrachloroethylene	< 1.0	1.0	µg/L	2022-10-28	
Toluene	< 1.0	1.0	µg/L	2022-10-28	
1,1,1-Trichloroethane	< 1.0	1.0	µg/L	2022-10-28	
1,1,2-Trichloroethane	< 1.0	1.0	µg/L	2022-10-28	
Trichloroethylene	< 1.0	1.0	µg/L	2022-10-28	
Trichlorofluoromethane	< 1.0	1.0	µg/L	2022-10-28	
Vinyl chloride	< 1.0	1.0	µg/L	2022-10-28	
Xylenes (total)	< 2.0	2.0	µg/L	2022-10-28	
Surrogate: Toluene-d8	*74*	*70-130*	%	*2022-10-28*	
Surrogate: 4-Bromofluorobenzene	*80*	*70-130*	%	*2022-10-28*	
Surrogate: 1,4-Dichlorobenzene-d4	*69*	*70-130*	%	*2022-10-28*	S02

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
HT2	The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
S02	Surrogate recovery outside of control limits. Data accepted based on acceptable recovery of other surrogates.

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2845
REPORTED 2023-01-20 15:33

Analysis Description	Method Ref.	Technique	Accredited	Location
Anions in Water	SM 4110 B (2020)	Ion Chromatography	✓	Kelowna
Carbon, Dissolved Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Coliforms, Fecal in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Coliforms, Total in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
HEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
LEPHw in Water	BCMOE LEPH/HEPH	Calculation		N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Nitrogen, Total Kjeldahl in Water	SM 4500-Norg D* (2021)	Block Digestion and Flow Injection Analysis	✓	Kelowna
Pesticides in Water	EPA 3510C* / EPA 8270D*	Liquid-Liquid DCM Extraction (B/N) / GC-MSD (SIM)	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Phosphorus, Total in Water	SM 4500-P B.5* (2011) / SM 4500-P F (2021)	Persulfate Digestion / Automated Colorimetry (Ascorbic Acid)	✓	Kelowna
Polycyclic Aromatic Hydrocarbons in Water	EPA 3511* / EPA 8270D	Hexane MicroExtraction (Base/Neutral) / GC-MSD (SIM)	✓	Richmond
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Solids, Total Suspended in Water	Solids in Water, Filtered / SM 2540 D* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Turbidity in Water	SM 2130 B (2020)	Nephelometry	✓	Kelowna
VH in Water	EPA 5030B / BCMOE VHw	Purge&Trap / Gas Chromatography (GC-FID)	✓	Richmond
Volatile Organic Compounds in Water	EPA 5030B / EPA 8260D	Purge&Trap / GC-MSD (SIM)	✓	Richmond
VPHw in Water	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)		N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
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Glossary of Terms:

RL	Reporting Limit (default)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
NTU	Nephelometric Turbidity Units
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Anions, Batch B2J2553										
Blank (B2J2553-BLK1)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 0.5	0.5	mg/L							
Blank (B2J2553-BLK2)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Chloride	< 0.10	0.10	mg/L							
Nitrate (as N)	< 0.010	0.010	mg/L							
Nitrite (as N)	< 0.010	0.010	mg/L							
Phosphate (as P)	< 0.0050	0.0050	mg/L							
Sulfate	< 0.5	0.5	mg/L							
LCS (B2J2553-BS1)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Chloride	15.7	0.10	mg/L	16.0		98	90-110			
Nitrate (as N)	4.08	0.010	mg/L	4.00		102	90-110			
Nitrite (as N)	1.89	0.010	mg/L	2.00		94	85-115			
Phosphate (as P)	1.10	0.0050	mg/L	1.00		110	80-120			
Sulfate	15.6	0.5	mg/L	16.0		97	90-110			
LCS (B2J2553-BS2)				Prepared: 2022-10-23, Analyzed: 2022-10-23						
Chloride	15.7	0.10	mg/L	16.0		98	90-110			
Nitrate (as N)	4.04	0.010	mg/L	4.00		101	90-110			
Nitrite (as N)	1.92	0.010	mg/L	2.00		96	85-115			
Phosphate (as P)	1.10	0.0050	mg/L	1.00		110	80-120			
Sulfate	15.7	0.5	mg/L	16.0		98	90-110			
BCMOE Aggregate Hydrocarbons, Batch B2J3189										
Blank (B2J3189-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2030*		*µg/L*	2200		*92*	*60-140*			
Blank (B2J3189-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J3189, Continued										
Blank (B2J3189-BLK2), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2120*		*µg/L*	2200		*97*	*60-140*			
LCS (B2J3189-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	15000	250	µg/L	15400		97	70-130			
EPHw19-32	21000	250	µg/L	22100		95	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1580*		*µg/L*	2200		*72*	*60-140*			
LCS (B2J3189-BS4)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	17100	250	µg/L	15400		111	70-130			
EPHw19-32	24200	250	µg/L	22100		109	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1610*		*µg/L*	2200		*73*	*60-140*			
LCS Dup (B2J3189-BSD2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	16900	250	µg/L	15400		110	70-130	12	20	
EPHw19-32	23600	250	µg/L	22100		107	70-130	12	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1670*		*µg/L*	2200		*76*	*60-140*			
LCS Dup (B2J3189-BSD4)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	16800	250	µg/L	13300		127	70-130	2	20	
EPHw19-32	23500	250	µg/L	19000		124	70-130	3	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1820*		*µg/L*	2200		*83*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B2J3207										
Blank (B2J3207-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*1630*		*µg/L*	2220		*73*	*60-140*			
LCS (B2J3207-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	17300	250	µg/L	15400		112	70-130			
EPHw19-32	25200	250	µg/L	22100		114	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*2070*		*µg/L*	2220		*93*	*60-140*			
LCS Dup (B2J3207-BSD2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	17500	250	µg/L	15400		114	70-130	1	20	
EPHw19-32	25200	250	µg/L	22100		114	70-130	< 1	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*2080*		*µg/L*	2220		*93*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B2J3261										
Blank (B2J3261-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
VHw (6-10)	< 100	100	µg/L							
LCS (B2J3261-BS2)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
VHw (6-10)	1680	100	µg/L	2150		78	70-130			
Dissolved Metals, Batch B2J3045										
Blank (B2J3045-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3045, Continued										
Blank (B2J3045-BLK1), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B2J3045-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, dissolved	3.95	0.0050	mg/L	4.00		99	80-120			
Antimony, dissolved	0.0404	0.00020	mg/L	0.0400		101	80-120			
Arsenic, dissolved	0.0420	0.00050	mg/L	0.0400		105	80-120			
Barium, dissolved	0.0401	0.0050	mg/L	0.0400		100	80-120			
Beryllium, dissolved	0.0358	0.00010	mg/L	0.0400		90	80-120			
Bismuth, dissolved	0.0401	0.00010	mg/L	0.0400		100	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400		96	80-120			
Cadmium, dissolved	0.0403	0.000010	mg/L	0.0400		101	80-120			
Calcium, dissolved	3.91	0.20	mg/L	4.00		98	80-120			
Chromium, dissolved	0.0407	0.00050	mg/L	0.0400		102	80-120			
Cobalt, dissolved	0.0405	0.00010	mg/L	0.0400		101	80-120			
Copper, dissolved	0.0410	0.00040	mg/L	0.0400		103	80-120			
Iron, dissolved	4.04	0.010	mg/L	4.00		101	80-120			
Lead, dissolved	0.0411	0.00020	mg/L	0.0400		103	80-120			
Lithium, dissolved	0.0355	0.00010	mg/L	0.0400		89	80-120			
Magnesium, dissolved	3.94	0.010	mg/L	4.00		98	80-120			
Manganese, dissolved	0.0408	0.00020	mg/L	0.0400		102	80-120			
Molybdenum, dissolved	0.0398	0.00010	mg/L	0.0400		100	80-120			
Nickel, dissolved	0.0419	0.00040	mg/L	0.0400		105	80-120			
Phosphorus, dissolved	4.05	0.050	mg/L	4.00		101	80-120			
Potassium, dissolved	4.04	0.10	mg/L	4.00		101	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3045, Continued										
LCS (B2J3045-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Selenium, dissolved	0.0407	0.00050	mg/L	0.0400		102	80-120			
Silicon, dissolved	3.8	1.0	mg/L	4.00		96	80-120			
Silver, dissolved	0.0410	0.000050	mg/L	0.0400		102	80-120			
Sodium, dissolved	4.04	0.10	mg/L	4.00		101	80-120			
Strontium, dissolved	0.0412	0.0010	mg/L	0.0400		103	80-120			
Sulfur, dissolved	38.6	3.0	mg/L	40.0		96	80-120			
Tellurium, dissolved	0.0397	0.00050	mg/L	0.0400		99	80-120			
Thallium, dissolved	0.0401	0.000020	mg/L	0.0400		100	80-120			
Thorium, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Tin, dissolved	0.0407	0.00020	mg/L	0.0400		102	80-120			
Titanium, dissolved	0.0402	0.0050	mg/L	0.0400		101	80-120			
Tungsten, dissolved	0.0416	0.0010	mg/L	0.0400		104	80-120			
Uranium, dissolved	0.0405	0.000020	mg/L	0.0400		101	80-120			
Vanadium, dissolved	0.0409	0.0050	mg/L	0.0400		102	80-120			
Zinc, dissolved	0.0406	0.0040	mg/L	0.0400		101	80-120			
Zirconium, dissolved	0.0406	0.00010	mg/L	0.0400		102	80-120			
Duplicate (B2J3045-DUP1)				**Source: 22J2845-01**	Prepared: 2022-10-26, Analyzed: 2022-10-26					
Aluminum, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Antimony, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Arsenic, dissolved	0.00079	0.00050	mg/L		0.00079				20	
Barium, dissolved	0.0428	0.0050	mg/L		0.0425			< 1	20	
Beryllium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Bismuth, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Boron, dissolved	< 0.0500	0.0500	mg/L		< 0.0500				20	
Cadmium, dissolved	< 0.000010	0.000010	mg/L		< 0.000010				20	
Calcium, dissolved	36.0	0.20	mg/L		35.3			2	20	
Chromium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Cobalt, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Copper, dissolved	0.00148	0.00040	mg/L		0.00142				20	
Iron, dissolved	0.015	0.010	mg/L		0.015				20	
Lead, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Lithium, dissolved	0.00137	0.00010	mg/L		0.00145			6	20	
Magnesium, dissolved	12.5	0.010	mg/L		12.5			< 1	20	
Manganese, dissolved	0.0119	0.00020	mg/L		0.0120			< 1	20	
Molybdenum, dissolved	0.00203	0.00010	mg/L		0.00202			< 1	20	
Nickel, dissolved	0.00062	0.00040	mg/L		0.00060				20	
Phosphorus, dissolved	< 0.050	0.050	mg/L		< 0.050				20	
Potassium, dissolved	2.61	0.10	mg/L		2.62			< 1	20	
Selenium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Silicon, dissolved	2.8	1.0	mg/L		2.8				20	
Silver, dissolved	< 0.000050	0.000050	mg/L		< 0.000050				20	
Sodium, dissolved	12.5	0.10	mg/L		12.6			1	20	
Strontium, dissolved	0.216	0.0010	mg/L		0.217			< 1	20	
Sulfur, dissolved	9.0	3.0	mg/L		8.8				20	
Tellurium, dissolved	< 0.00050	0.00050	mg/L		< 0.00050				20	
Thallium, dissolved	< 0.000020	0.000020	mg/L		< 0.000020				20	
Thorium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	
Tin, dissolved	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, dissolved	< 0.0010	0.0010	mg/L		< 0.0010				20	
Uranium, dissolved	0.000888	0.000020	mg/L		0.000887			< 1	20	
Vanadium, dissolved	< 0.0050	0.0050	mg/L		< 0.0050				20	
Zinc, dissolved	< 0.0040	0.0040	mg/L		< 0.0040				20	
Zirconium, dissolved	< 0.00010	0.00010	mg/L		< 0.00010				20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3045, Continued										
Matrix Spike (B2J3045-MS1)	**Source: 22J2845-01**			Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, dissolved	3.75	0.0050	mg/L	4.00	< 0.0050	94	70-130			
Antimony, dissolved	0.0388	0.00020	mg/L	0.0400	< 0.00020	97	70-130			
Arsenic, dissolved	0.0434	0.00050	mg/L	0.0400	0.00079	106	70-130			
Barium, dissolved	0.0822	0.0050	mg/L	0.0400	0.0425	99	70-130			
Beryllium, dissolved	0.0362	0.00010	mg/L	0.0400	< 0.00010	91	70-130			
Bismuth, dissolved	0.0334	0.00010	mg/L	0.0400	< 0.00010	84	70-130			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400	< 0.0500	86	70-130			
Cadmium, dissolved	0.0404	0.000010	mg/L	0.0400	< 0.000010	101	70-130			
Calcium, dissolved	42.0	0.20	mg/L	4.00	35.3	168	70-130			MS2
Chromium, dissolved	0.0392	0.00050	mg/L	0.0400	< 0.00050	97	70-130			
Cobalt, dissolved	0.0391	0.00010	mg/L	0.0400	< 0.00010	98	70-130			
Copper, dissolved	0.0400	0.00040	mg/L	0.0400	0.00142	96	70-130			
Iron, dissolved	3.92	0.010	mg/L	4.00	0.015	98	70-130			
Lead, dissolved	0.0393	0.00020	mg/L	0.0400	< 0.00020	98	70-130			
Lithium, dissolved	0.0367	0.00010	mg/L	0.0400	0.00145	88	70-130			
Magnesium, dissolved	15.1	0.010	mg/L	4.00	12.5	67	70-130			MS2
Manganese, dissolved	0.0503	0.00020	mg/L	0.0400	0.0120	96	70-130			
Molybdenum, dissolved	0.0415	0.00010	mg/L	0.0400	0.00202	99	70-130			
Nickel, dissolved	0.0396	0.00040	mg/L	0.0400	0.00060	98	70-130			
Phosphorus, dissolved	4.06	0.050	mg/L	4.00	< 0.050	102	70-130			
Potassium, dissolved	6.50	0.10	mg/L	4.00	2.62	97	70-130			
Selenium, dissolved	0.0425	0.00050	mg/L	0.0400	< 0.00050	106	70-130			
Silicon, dissolved	6.1	1.0	mg/L	4.00	2.8	82	70-130			
Silver, dissolved	0.0368	0.000050	mg/L	0.0400	< 0.000050	92	70-130			
Sodium, dissolved	15.4	0.10	mg/L	4.00	12.6	71	70-130			
Strontium, dissolved	0.252	0.0010	mg/L	0.0400	0.217	88	70-130			
Sulfur, dissolved	45.3	3.0	mg/L	40.0	8.8	91	70-130			
Tellurium, dissolved	0.0416	0.00050	mg/L	0.0400	< 0.00050	104	70-130			
Thallium, dissolved	0.0385	0.000020	mg/L	0.0400	< 0.000020	96	70-130			
Thorium, dissolved	0.0388	0.00010	mg/L	0.0400	< 0.00010	97	70-130			
Tin, dissolved	0.0409	0.00020	mg/L	0.0400	< 0.00020	102	70-130			
Titanium, dissolved	0.0388	0.0050	mg/L	0.0400	< 0.0050	97	70-130			
Tungsten, dissolved	0.0400	0.0010	mg/L	0.0400	< 0.0010	100	70-130			
Uranium, dissolved	0.0401	0.000020	mg/L	0.0400	0.000887	98	70-130			
Vanadium, dissolved	0.0416	0.0050	mg/L	0.0400	< 0.0050	102	70-130			
Zinc, dissolved	0.0400	0.0040	mg/L	0.0400	< 0.0040	100	70-130			
Zirconium, dissolved	0.0411	0.00010	mg/L	0.0400	< 0.00010	102	70-130			

Dissolved Metals, Batch B2J3057

Blank (B2J3057-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26
Aluminum, dissolved	< 0.0050	0.0050	mg/L	
Antimony, dissolved	< 0.00020	0.00020	mg/L	
Arsenic, dissolved	< 0.00050	0.00050	mg/L	
Barium, dissolved	< 0.0050	0.0050	mg/L	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	
Boron, dissolved	< 0.0500	0.0500	mg/L	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	
Calcium, dissolved	< 0.20	0.20	mg/L	
Chromium, dissolved	< 0.00050	0.00050	mg/L	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	
Copper, dissolved	< 0.00040	0.00040	mg/L	
Iron, dissolved	< 0.010	0.010	mg/L	
Lead, dissolved	< 0.00020	0.00020	mg/L	
Lithium, dissolved	< 0.00010	0.00010	mg/L	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3057, Continued										
Blank (B2J3057-BLK1), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							
LCS (B2J3057-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, dissolved	4.06	0.0050	mg/L	4.00		101	80-120			
Antimony, dissolved	0.0405	0.00020	mg/L	0.0400		101	80-120			
Arsenic, dissolved	0.0420	0.00050	mg/L	0.0400		105	80-120			
Barium, dissolved	0.0409	0.0050	mg/L	0.0400		102	80-120			
Beryllium, dissolved	0.0405	0.00010	mg/L	0.0400		101	80-120			
Bismuth, dissolved	0.0416	0.00010	mg/L	0.0400		104	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400		107	80-120			
Cadmium, dissolved	0.0406	0.000010	mg/L	0.0400		102	80-120			
Calcium, dissolved	4.04	0.20	mg/L	4.00		101	80-120			
Chromium, dissolved	0.0420	0.00050	mg/L	0.0400		105	80-120			
Cobalt, dissolved	0.0412	0.00010	mg/L	0.0400		103	80-120			
Copper, dissolved	0.0417	0.00040	mg/L	0.0400		104	80-120			
Iron, dissolved	4.18	0.010	mg/L	4.00		105	80-120			
Lead, dissolved	0.0419	0.00020	mg/L	0.0400		105	80-120			
Lithium, dissolved	0.0406	0.00010	mg/L	0.0400		102	80-120			
Magnesium, dissolved	4.20	0.010	mg/L	4.00		105	80-120			
Manganese, dissolved	0.0411	0.00020	mg/L	0.0400		103	80-120			
Molybdenum, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Nickel, dissolved	0.0404	0.00040	mg/L	0.0400		101	80-120			
Phosphorus, dissolved	4.07	0.050	mg/L	4.00		102	80-120			
Potassium, dissolved	4.15	0.10	mg/L	4.00		104	80-120			
Selenium, dissolved	0.0414	0.00050	mg/L	0.0400		104	80-120			
Silicon, dissolved	4.2	1.0	mg/L	4.00		105	80-120			
Silver, dissolved	0.0419	0.000050	mg/L	0.0400		105	80-120			
Sodium, dissolved	4.32	0.10	mg/L	4.00		108	80-120			
Strontium, dissolved	0.0434	0.0010	mg/L	0.0400		108	80-120			
Sulfur, dissolved	41.6	3.0	mg/L	40.0		104	80-120			
Tellurium, dissolved	0.0408	0.00050	mg/L	0.0400		102	80-120			
Thallium, dissolved	0.0417	0.000020	mg/L	0.0400		104	80-120			
Thorium, dissolved	0.0420	0.00010	mg/L	0.0400		105	80-120			
Tin, dissolved	0.0408	0.00020	mg/L	0.0400		102	80-120			
Titanium, dissolved	0.0421	0.0050	mg/L	0.0400		105	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3057, Continued										
LCS (B2J3057-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Tungsten, dissolved	0.0425	0.0010	mg/L	0.0400		106	80-120			
Uranium, dissolved	0.0420	0.000020	mg/L	0.0400		105	80-120			
Vanadium, dissolved	0.0404	0.0050	mg/L	0.0400		101	80-120			
Zinc, dissolved	0.0400	0.0040	mg/L	0.0400		100	80-120			
Zirconium, dissolved	0.0416	0.00010	mg/L	0.0400		104	80-120			
Dissolved Metals, Batch B2J3594										
Blank (B2J3594-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3594-BLK2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3594-BLK3)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3594-BLK4)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B2J3594-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000512	0.000010	mg/L	0.000500		102	80-120			
LCS (B2J3594-BS2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000513	0.000010	mg/L	0.000500		103	80-120			
LCS (B2J3594-BS3)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000544	0.000010	mg/L	0.000500		109	80-120			
LCS (B2J3594-BS4)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000552	0.000010	mg/L	0.000500		110	80-120			
General Parameters, Batch B2J2556										
Blank (B2J2556-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2556-BLK2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2556-BLK3)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2556-BLK4)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
LCS (B2J2556-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.47	0.50	mg/L	10.0		95	78-116			
Carbon, Dissolved Organic	9.56	0.50	mg/L	10.0		96	78-116			
LCS (B2J2556-BS2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.31	0.50	mg/L	10.0		93	78-116			
Carbon, Dissolved Organic	9.33	0.50	mg/L	10.0		93	78-116			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2556, Continued										
LCS (B2J2556-BS3)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.44	0.50	mg/L	10.0		94	78-116			
Carbon, Dissolved Organic	9.31	0.50	mg/L	10.0		93	78-116			
LCS (B2J2556-BS4)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.63	0.50	mg/L	10.0		96	78-116			
Carbon, Dissolved Organic	9.08	0.50	mg/L	10.0		91	78-116			
General Parameters, Batch B2J3021										
Blank (B2J3021-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B2J3021-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Dissolved	235	15	mg/L	240		98	85-115			
General Parameters, Batch B2J3060										
Blank (B2J3060-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B2J3060-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
Solids, Total Suspended	90.0	10.0	mg/L	100		90	85-115			
General Parameters, Batch B2J3199										
Duplicate (B2J3199-DUP2)				**Source: 22J2845-01**	Prepared: 2022-10-27, Analyzed: 2022-10-27					
pH	8.12	0.10	pH units		8.02			1	4	
Reference (B2J3199-SRM1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B2J3199-SRM2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B2J3199-SRM3)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH	7.02	0.10	pH units	7.01		100	98-102			
Reference (B2J3199-SRM4)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
pH	7.02	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B2J3214										
Blank (B2J3214-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Nitrogen, Total Kjeldahl	< 0.050	0.050	mg/L							
Blank (B2J3214-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Nitrogen, Total Kjeldahl	< 0.050	0.050	mg/L							
LCS (B2J3214-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Nitrogen, Total Kjeldahl	1.01	0.050	mg/L	1.00		101	85-115			
LCS (B2J3214-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Nitrogen, Total Kjeldahl	1.02	0.050	mg/L	1.00		102	85-115			
General Parameters, Batch B2J3275										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J3275, Continued										
Blank (B2J3275-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Phosphorus, Total (as P)	< 0.0050	0.0050	mg/L							
Blank (B2J3275-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Phosphorus, Total (as P)	< 0.0050	0.0050	mg/L							
Blank (B2J3275-BLK3)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Phosphorus, Total (as P)	< 0.0050	0.0050	mg/L							
LCS (B2J3275-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Phosphorus, Total (as P)	0.110	0.0050	mg/L	0.100		110	85-115			
LCS (B2J3275-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Phosphorus, Total (as P)	0.112	0.0050	mg/L	0.100		112	85-115			
LCS (B2J3275-BS3)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
Phosphorus, Total (as P)	0.110	0.0050	mg/L	0.100		110	85-115			
General Parameters, Batch B2J3365										
Reference (B2J3365-SRM1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
pH	7.02	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B3A1696										
Blank (B3A1696-BLK1)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	< 0.10	0.10	NTU							
Blank (B3A1696-BLK2)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	< 0.10	0.10	NTU							
LCS (B3A1696-BS1)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	15.2	0.10	NTU	14.6		104	90-110			
LCS (B3A1696-BS2)				Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	15.2	0.10	NTU	14.6		104	90-110			
Duplicate (B3A1696-DUP1)		**Source: 22J2845-05**		Prepared: 2023-01-19, Analyzed: 2023-01-19						
Turbidity	4.01	0.10	NTU		3.96			1	15	
Microbiological Parameters, Batch B2J2498										
Blank (B2J2498-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2498-BLK2)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2498-BLK3)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Blank (B2J2498-BLK4)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Microbiological Parameters, Batch B2J2498, Continued										
Duplicate (B2J2498-DUP3)	**Source: 22J2845-01**			Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Fecal (Q-Tray)	11	1	MPN/100 mL		14			27	80	
Duplicate (B2J2498-DUP4)	**Source: 22J2845-02**			Prepared: 2022-10-21, Analyzed: 2022-10-21						
Coliforms, Total (Q-Tray)	901	1	MPN/100 mL		548			49	80	
E. coli (Q-Tray)	9	1	MPN/100 mL		5			51	80	
Pesticides, Herbicides, and Fungicides, Batch B2J3249										
Blank (B2J3249-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-11-04						
Alachlor	< 0.100	0.100	µg/L							
Aldrin	< 0.006	0.006	µg/L							
Atrazine and metabolites	< 0.100	0.100	µg/L							
Azinphos-methyl	< 0.200	0.200	µg/L							
alpha-BHC	< 0.010	0.010	µg/L							
beta-BHC	< 0.050	0.050	µg/L							
delta-BHC	< 0.050	0.050	µg/L							
gamma-BHC (Lindane)	< 0.050	0.050	µg/L							
Bromacil	< 0.100	0.100	µg/L							
Bromoxynil	< 0.200	0.200	µg/L							
Butachlor	< 0.020	0.020	µg/L							
Captan	< 0.100	0.100	µg/L							
Chlordane (cis + trans)	< 0.050	0.050	µg/L							
Chlorothalonil	< 0.050	0.050	µg/L							
Chlorpyrifos	< 0.010	0.010	µg/L							
Cyanazine	< 0.100	0.100	µg/L							
DDT, Total	< 0.010	0.010	µg/L							
Deltamethrin	< 0.100	0.100	µg/L							
Diazinon	< 0.020	0.020	µg/L							
Dichlorvos	< 0.100	0.100	µg/L							
Diclofop-methyl	< 0.100	0.100	µg/L							
Dieldrin	< 0.010	0.010	µg/L							
Dimethoate	< 0.200	0.200	µg/L							
Disulfoton	< 0.100	0.100	µg/L							
Diuron	< 0.200	0.200	µg/L							
Endosulfan I + II	< 0.010	0.010	µg/L							
Endosulfan sulfate	< 0.050	0.050	µg/L							
Endrin	< 0.020	0.020	µg/L							
Endrin aldehyde	< 0.020	0.020	µg/L							
Endrin ketone	< 0.020	0.020	µg/L							
Fenchlorphos (Ronnel)	< 0.100	0.100	µg/L							
Heptachlor	< 0.010	0.010	µg/L							
Heptachlor epoxide	< 0.010	0.010	µg/L							
Linuron	< 0.050	0.050	µg/L							
Malathion	< 0.100	0.100	µg/L							
Methoxychlor	< 0.050	0.050	µg/L							
Methyl parathion	< 0.100	0.100	µg/L							
Metolachlor	< 0.100	0.100	µg/L							
Metribuzin	< 0.200	0.200	µg/L							
Parathion	< 0.100	0.100	µg/L							
Pentachloronitrobenzene	< 0.100	0.100	µg/L							
Permethrin	< 0.010	0.010	µg/L							
Phorate	< 0.100	0.100	µg/L							
Prometon	< 0.300	0.300	µg/L							
Prometryne	< 0.100	0.100	µg/L							
Simazine	< 0.200	0.200	µg/L							
Sulfotep	< 0.100	0.100	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249, Continued										
Blank (B2J3249-BLK1), Continued				Prepared: 2022-10-27, Analyzed: 2022-11-04						
Tebuthiuron	< 0.200	0.200	µg/L							
Temephos (Abate)	< 0.500	0.500	µg/L							
Terbufos	< 0.100	0.100	µg/L							
Triallate	< 0.100	0.100	µg/L							
Trifluralin	< 0.200	0.200	µg/L							
Surrogate: Tributyl Phosphate	*0.608*		*µg/L*	0.998		*61*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.570*		*µg/L*	1.00		*57*	*50-140*			
LCS (B2J3249-BS1)				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Alachlor	0.765	0.100	µg/L	1.01		76	50-140			
Aldrin	0.649	0.006	µg/L	1.00		65	50-140			
Atrazine	0.626	0.100	µg/L	1.01		62	50-140			
Atrazine-desethyl	0.199	0.100	µg/L	1.03		19	50-140			SPK1
Azinphos-methyl	0.925	0.200	µg/L	0.981		94	50-140			
alpha-BHC	0.690	0.010	µg/L	1.01		68	50-140			
beta-BHC	0.706	0.050	µg/L	1.01		70	50-140			
delta-BHC	0.700	0.050	µg/L	1.00		70	50-140			
gamma-BHC (Lindane)	0.683	0.050	µg/L	1.00		68	50-140			
Bromacil	0.808	0.100	µg/L	1.01		80	50-140			
Bromoxynil	0.776	0.200	µg/L	0.978		79	50-140			
Butachlor	0.869	0.020	µg/L	1.01		86	50-140			
Captan	0.711	0.100	µg/L	0.996		71	50-140			
Chlordane (cis + trans)	1.46	0.050	µg/L	2.01		73	50-140			
Chlorothalonil	0.701	0.050	µg/L	1.01		69	50-140			
Chlorpyrifos	0.722	0.010	µg/L	1.00		72	50-140			
Cyanazine	0.618	0.100	µg/L	1.01		61	50-140			
DDT, Total	4.65	0.010	µg/L	5.97		78	50-140			
Deltamethrin	8.25	0.100	µg/L	10.1		82	50-140			
Diazinon	0.701	0.020	µg/L	1.00		70	50-140			
Dichlorvos	0.684	0.100	µg/L	1.09		63	50-140			
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140			
Dieldrin	0.760	0.010	µg/L	1.00		76	50-140			
Dimethoate	0.643	0.200	µg/L	0.990		65	50-140			
Disulfoton	0.662	0.100	µg/L	1.02		65	50-140			
Diuron	0.907	0.200	µg/L	1.06		86	50-140			
Endosulfan I + II	1.50	0.010	µg/L	2.01		74	50-140			
Endosulfan sulfate	0.772	0.050	µg/L	1.01		76	50-140			
Endrin	0.760	0.020	µg/L	1.01		75	50-140			
Endrin aldehyde	0.817	0.020	µg/L	1.00		82	50-140			
Endrin ketone	0.789	0.020	µg/L	1.01		78	50-140			
Fenchlorphos (Ronnel)	0.701	0.100	µg/L	1.03		68	50-140			
Heptachlor	0.687	0.010	µg/L	1.01		68	50-140			
Heptachlor epoxide	0.733	0.010	µg/L	1.01		73	50-140			
Linuron	1.16	0.050	µg/L	1.07		108	50-140			
Malathion	0.843	0.100	µg/L	1.00		84	50-140			
Methoxychlor	0.835	0.050	µg/L	1.01		83	50-140			
Methyl parathion	0.675	0.100	µg/L	0.997		68	50-140			
Metolachlor	0.811	0.100	µg/L	1.00		81	50-140			
Metribuzin	0.531	0.200	µg/L	1.00		53	50-140			
Parathion	0.850	0.100	µg/L	0.999		85	50-140			
Pentachloronitrobenzene	0.637	0.100	µg/L	0.989		64	50-140			
Permethrin	0.960	0.010	µg/L	1.04		92	50-140			
Phorate	0.646	0.100	µg/L	1.00		65	50-140			
Prometon	0.542	0.300	µg/L	1.00		54	50-140			
Prometryne	0.726	0.100	µg/L	1.00		73	50-140			
Simazine	0.610	0.200	µg/L	1.01		60	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249, Continued										
LCS (B2J3249-BS1), Continued				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Sulfotep	0.712	0.100	µg/L	1.04		68	50-140			
Tebuthiuron	0.514	0.200	µg/L	1.01		51	50-140			
Temephos (Abate)	8.27	0.500	µg/L	10.5		79	50-140			
Terbufos	0.713	0.100	µg/L	0.994		72	50-140			
Triallate	0.705	0.100	µg/L	1.01		70	50-140			
Trifluralin	0.714	0.200	µg/L	1.00		71	50-140			
Surrogate: Tributyl Phosphate	*0.704*		*µg/L*	0.998		*71*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.676*		*µg/L*	1.00		*68*	*50-140*			
LCS Dup (B2J3249-BSD1)				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Alachlor	0.731	0.100	µg/L	1.01		72	50-140	4	30	
Aldrin	0.663	0.006	µg/L	1.00		66	50-140	2	30	
Atrazine	0.635	0.100	µg/L	1.01		63	50-140	1	30	
Atrazine-desethyl	0.322	0.100	µg/L	1.03		31	50-140	47	30	RPD, SPK1
Azinphos-methyl	1.07	0.200	µg/L	0.981		109	50-140	14	30	
alpha-BHC	0.666	0.010	µg/L	1.01		66	50-140	3	30	
beta-BHC	0.664	0.050	µg/L	1.01		66	50-140	6	30	
delta-BHC	0.631	0.050	µg/L	1.00		63	50-140	10	30	
gamma-BHC (Lindane)	0.665	0.050	µg/L	1.00		67	50-140	3	30	
Bromacil	0.786	0.100	µg/L	1.01		78	50-140	3	30	
Bromoxynil	0.754	0.200	µg/L	0.978		77	50-140	3	30	
Butachlor	0.874	0.020	µg/L	1.01		86	50-140	< 1	30	
Captan	0.780	0.100	µg/L	0.996		78	50-140	9	30	
Chlordane (cis + trans)	1.35	0.050	µg/L	2.01		67	50-140	8	30	
Chlorothalonil	0.689	0.050	µg/L	1.01		68	50-140	2	30	
Chlorpyrifos	0.723	0.010	µg/L	1.00		72	50-140	< 1	30	
Cyanazine	0.792	0.100	µg/L	1.01		78	50-140	25	30	
DDT, Total	4.53	0.010	µg/L	5.97		76	50-140	3	30	
Deltamethrin	8.37	0.100	µg/L	10.1		83	50-140	1	30	
Diazinon	0.527	0.020	µg/L	1.00		53	50-140	28	30	
Dichlorvos	0.644	0.100	µg/L	1.09		59	50-140	6	30	
Diclofop-methyl	0.828	0.100	µg/L	1.02		81	50-140	< 1	30	
Dieldrin	0.745	0.010	µg/L	1.00		75	50-140	2	30	
Dimethoate	0.632	0.200	µg/L	0.990		64	50-140	2	30	
Disulfoton	0.636	0.100	µg/L	1.02		62	50-140	4	30	
Diuron	0.809	0.200	µg/L	1.06		76	50-140	11	30	
Endosulfan I + II	1.47	0.010	µg/L	2.01		73	50-140	2	30	
Endosulfan sulfate	0.757	0.050	µg/L	1.01		75	50-140	2	30	
Endrin	0.767	0.020	µg/L	1.01		76	50-140	1	30	
Endrin aldehyde	0.782	0.020	µg/L	1.00		78	50-140	4	30	
Endrin ketone	0.734	0.020	µg/L	1.01		73	50-140	7	30	
Fenchlorphos (Ronnel)	0.655	0.100	µg/L	1.03		64	50-140	7	30	
Heptachlor	0.673	0.010	µg/L	1.01		67	50-140	2	30	
Heptachlor epoxide	0.722	0.010	µg/L	1.01		72	50-140	1	30	
Linuron	0.994	0.050	µg/L	1.07		93	50-140	15	30	
Malathion	0.864	0.100	µg/L	1.00		86	50-140	3	30	
Methoxychlor	0.848	0.050	µg/L	1.01		84	50-140	2	30	
Methyl parathion	0.725	0.100	µg/L	0.997		73	50-140	7	30	
Metolachlor	0.770	0.100	µg/L	1.00		77	50-140	5	30	
Metribuzin	0.722	0.200	µg/L	1.00		72	50-140	31	30	RPD
Parathion	0.877	0.100	µg/L	0.999		88	50-140	3	30	
Pentachloronitrobenzene	0.643	0.100	µg/L	0.989		65	50-140	1	30	
Permethrin	1.06	0.010	µg/L	1.04		102	50-140	10	30	
Phorate	0.648	0.100	µg/L	1.00		65	50-140	< 1	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2845
PROJECT 690667 **REPORTED** 2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J3249, Continued										
LCS Dup (B2J3249-BSD1), Continued				Prepared: 2022-10-27, Analyzed: 2022-11-03						
Prometon	< 0.300	0.300	µg/L	1.00		11	50-140	132	30	RPD, SPK1
Prometryne	0.278	0.100	µg/L	1.00		28	50-140	89	30	RPD, SPK1
Simazine	0.507	0.200	µg/L	1.01		50	50-140	18	30	
Sulfotep	0.693	0.100	µg/L	1.04		67	50-140	3	30	
Tebuthiuron	< 0.200	0.200	µg/L	1.01		16	50-140	105	30	RPD, SPK1
Temephos (Abate)	8.75	0.500	µg/L	10.5		83	50-140	6	30	
Terbufos	0.719	0.100	µg/L	0.994		72	50-140	< 1	30	
Triallate	0.683	0.100	µg/L	1.01		68	50-140	3	30	
Trifluralin	0.743	0.200	µg/L	1.00		74	50-140	4	30	
Surrogate: Tributyl Phosphate	*0.630*		*µg/L*	0.998		*63*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.533*		*µg/L*	1.00		*53*	*50-140*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189										
Blank (B2J3189-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*17.0*		*µg/L*	22.2		*76*	*50-140*			
Surrogate: Naphthalene-d8	*18.7*		*µg/L*	22.2		*84*	*50-140*			
Surrogate: Perylene-d12	*28.9*		*µg/L*	22.2		*130*	*50-140*			
Blank (B2J3189-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	< 0.050	0.050	µg/L							
Acenaphthylene	< 0.200	0.200	µg/L							
Acridine	< 0.050	0.050	µg/L							
Anthracene	< 0.010	0.010	µg/L							
Benz(a)anthracene	< 0.010	0.010	µg/L							
Benzo(a)pyrene	< 0.010	0.010	µg/L							
Benzo(b+j)fluoranthene	< 0.050	0.050	µg/L							
Benzo(g,h,i)perylene	< 0.050	0.050	µg/L							
Benzo(k)fluoranthene	< 0.050	0.050	µg/L							
2-Chloronaphthalene	< 0.100	0.100	µg/L							
Chrysene	< 0.050	0.050	µg/L							
Dibenz(a,h)anthracene	< 0.010	0.010	µg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189, Continued										
Blank (B2J3189-BLK2), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Fluoranthene	< 0.030	0.030	µg/L							
Fluorene	< 0.050	0.050	µg/L							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	µg/L							
1-Methylnaphthalene	< 0.100	0.100	µg/L							
2-Methylnaphthalene	< 0.100	0.100	µg/L							
Naphthalene	< 0.200	0.200	µg/L							
Phenanthrene	< 0.100	0.100	µg/L							
Pyrene	< 0.020	0.020	µg/L							
Quinoline	< 0.050	0.050	µg/L							
Surrogate: Acridine-d9	*16.1*		*µg/L*	22.2		*72*	*50-140*			
Surrogate: Naphthalene-d8	*17.9*		*µg/L*	22.2		*81*	*50-140*			
Surrogate: Perylene-d12	*27.4*		*µg/L*	22.2		*124*	*50-140*			
LCS (B2J3189-BS1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	18.0	0.050	µg/L	22.1		81	50-140			
Acenaphthylene	17.2	0.200	µg/L	21.9		79	50-140			
Acridine	18.3	0.050	µg/L	22.0		83	50-140			
Anthracene	19.3	0.010	µg/L	22.1		87	50-140			
Benz(a)anthracene	22.2	0.010	µg/L	22.1		101	50-140			
Benzo(a)pyrene	24.7	0.010	µg/L	21.9		113	50-140			
Benzo(b+j)fluoranthene	51.6	0.050	µg/L	43.8		118	50-140			
Benzo(g,h,i)perylene	23.9	0.050	µg/L	21.9		109	50-140			
Benzo(k)fluoranthene	26.0	0.050	µg/L	22.0		118	50-140			
2-Chloronaphthalene	17.9	0.100	µg/L	21.9		82	50-140			
Chrysene	23.1	0.050	µg/L	21.8		106	50-140			
Dibenz(a,h)anthracene	23.1	0.010	µg/L	22.2		104	50-140			
Fluoranthene	16.4	0.030	µg/L	22.2		74	50-140			
Fluorene	17.5	0.050	µg/L	22.7		77	50-140			
Indeno(1,2,3-cd)pyrene	24.6	0.050	µg/L	21.9		112	50-140			
1-Methylnaphthalene	15.0	0.100	µg/L	22.0		68	50-140			
2-Methylnaphthalene	15.4	0.100	µg/L	22.0		70	50-140			
Naphthalene	12.7	0.200	µg/L	22.0		58	50-140			
Phenanthrene	19.1	0.100	µg/L	21.9		87	50-140			
Pyrene	16.3	0.020	µg/L	22.2		73	50-140			
Quinoline	25.8	0.050	µg/L	22.2		116	50-140			
Surrogate: Acridine-d9	*16.2*		*µg/L*	22.2		*73*	*50-140*			
Surrogate: Naphthalene-d8	*16.9*		*µg/L*	22.2		*76*	*50-140*			
Surrogate: Perylene-d12	*26.6*		*µg/L*	22.2		*120*	*50-140*			
LCS (B2J3189-BS3)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	20.6	0.050	µg/L	22.1		93	50-140			
Acenaphthylene	19.8	0.200	µg/L	21.9		91	50-140			
Acridine	20.4	0.050	µg/L	22.0		93	50-140			
Anthracene	22.1	0.010	µg/L	22.1		100	50-140			
Benz(a)anthracene	25.5	0.010	µg/L	22.1		115	50-140			
Benzo(a)pyrene	28.2	0.010	µg/L	21.9		129	50-140			
Benzo(b+j)fluoranthene	59.1	0.050	µg/L	43.8		135	50-140			
Benzo(g,h,i)perylene	27.2	0.050	µg/L	21.9		124	50-140			
Benzo(k)fluoranthene	29.7	0.050	µg/L	22.0		135	50-140			
2-Chloronaphthalene	20.7	0.100	µg/L	21.9		95	50-140			
Chrysene	26.3	0.050	µg/L	21.8		121	50-140			
Dibenz(a,h)anthracene	26.5	0.010	µg/L	22.2		119	50-140			
Fluoranthene	18.6	0.030	µg/L	22.2		84	50-140			
Fluorene	20.1	0.050	µg/L	22.7		89	50-140			
Indeno(1,2,3-cd)pyrene	28.0	0.050	µg/L	21.9		128	50-140			
1-Methylnaphthalene	17.2	0.100	µg/L	22.0		78	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189, Continued										
LCS (B2J3189-BS3), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-27						
2-Methylnaphthalene	17.7	0.100	µg/L	22.0		80	50-140			
Naphthalene	16.3	0.200	µg/L	22.0		74	50-140			
Phenanthrene	21.8	0.100	µg/L	21.9		100	50-140			
Pyrene	18.2	0.020	µg/L	22.2		82	50-140			
Quinoline	25.8	0.050	µg/L	22.2		116	50-140			
Surrogate: Acridine-d9	*18.6*		*µg/L*	22.2		*84*	*50-140*			
Surrogate: Naphthalene-d8	*20.4*		*µg/L*	22.2		*92*	*50-140*			
Surrogate: Perylene-d12	*30.9*		*µg/L*	22.2		*139*	*50-140*			
LCS Dup (B2J3189-BSD1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	18.3	0.050	µg/L	22.1		83	50-140	2	30	
Acenaphthylene	17.6	0.200	µg/L	21.9		80	50-140	2	30	
Acridine	18.4	0.050	µg/L	22.0		83	50-140	< 1	30	
Anthracene	19.6	0.010	µg/L	22.1		89	50-140	1	30	
Benz(a)anthracene	22.3	0.010	µg/L	22.1		101	50-140	< 1	30	
Benzo(a)pyrene	24.9	0.010	µg/L	21.9		114	50-140	< 1	30	
Benzo(b+j)fluoranthene	51.1	0.050	µg/L	43.8		117	50-140	1	30	
Benzo(g,h,i)perylene	24.1	0.050	µg/L	21.9		110	50-140	< 1	30	
Benzo(k)fluoranthene	25.7	0.050	µg/L	22.0		117	50-140	1	30	
2-Chloronaphthalene	18.3	0.100	µg/L	21.9		83	50-140	2	30	
Chrysene	23.3	0.050	µg/L	21.8		107	50-140	< 1	30	
Dibenz(a,h)anthracene	23.4	0.010	µg/L	22.2		105	50-140	1	30	
Fluoranthene	16.4	0.030	µg/L	22.2		74	50-140	< 1	30	
Fluorene	17.8	0.050	µg/L	22.7		78	50-140	2	30	
Indeno(1,2,3-cd)pyrene	24.8	0.050	µg/L	21.9		113	50-140	< 1	30	
1-Methylnaphthalene	15.3	0.100	µg/L	22.0		70	50-140	2	30	
2-Methylnaphthalene	15.7	0.100	µg/L	22.0		71	50-140	2	30	
Naphthalene	15.0	0.200	µg/L	22.0		68	50-140	17	30	
Phenanthrene	19.4	0.100	µg/L	21.9		88	50-140	1	30	
Pyrene	16.4	0.020	µg/L	22.2		74	50-140	1	30	
Quinoline	26.3	0.050	µg/L	22.2		118	50-140	2	30	
Surrogate: Acridine-d9	*16.3*		*µg/L*	22.2		*73*	*50-140*			
Surrogate: Naphthalene-d8	*17.4*		*µg/L*	22.2		*78*	*50-140*			
Surrogate: Perylene-d12	*26.7*		*µg/L*	22.2		*120*	*50-140*			
LCS Dup (B2J3189-BSD3)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Acenaphthene	15.7	0.050	µg/L	22.1		71	50-140	27	30	
Acenaphthylene	15.0	0.200	µg/L	21.9		69	50-140	28	30	
Acridine	15.9	0.050	µg/L	22.0		72	50-140	25	30	
Anthracene	16.9	0.010	µg/L	22.1		76	50-140	27	30	
Benz(a)anthracene	19.7	0.010	µg/L	22.1		89	50-140	26	30	
Benzo(a)pyrene	21.6	0.010	µg/L	21.9		98	50-140	27	30	
Benzo(b+j)fluoranthene	44.2	0.050	µg/L	43.8		101	50-140	29	30	
Benzo(g,h,i)perylene	20.9	0.050	µg/L	21.9		95	50-140	26	30	
Benzo(k)fluoranthene	20.1	0.050	µg/L	22.0		91	50-140	38	30	RPD1
2-Chloronaphthalene	15.6	0.100	µg/L	21.9		71	50-140	28	30	
Chrysene	20.1	0.050	µg/L	21.8		92	50-140	27	30	
Dibenz(a,h)anthracene	20.0	0.010	µg/L	22.2		90	50-140	28	30	
Fluoranthene	14.3	0.030	µg/L	22.2		64	50-140	26	30	
Fluorene	15.3	0.050	µg/L	22.7		67	50-140	27	30	
Indeno(1,2,3-cd)pyrene	21.4	0.050	µg/L	21.9		98	50-140	27	30	
1-Methylnaphthalene	13.1	0.100	µg/L	22.0		60	50-140	27	30	
2-Methylnaphthalene	13.4	0.100	µg/L	22.0		61	50-140	27	30	
Naphthalene	12.9	0.200	µg/L	22.0		58	50-140	24	30	
Phenanthrene	16.7	0.100	µg/L	21.9		76	50-140	27	30	
Pyrene	14.3	0.020	µg/L	22.2		64	50-140	25	30	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3189, Continued										
LCS Dup (B2J3189-BSD3), Continued				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Quinoline	22.5	0.050	µg/L	22.2		101	50-140	14	30	
Surrogate: Acridine-d9	*16.2*		*µg/L*	22.2		*73*	*50-140*			
Surrogate: Naphthalene-d8	*17.8*		*µg/L*	22.2		*80*	*50-140*			
Surrogate: Perylene-d12	*26.6*		*µg/L*	22.2		*120*	*50-140*			
Total Metals, Batch B2J2993										
Blank (B2J2993-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J2993-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, total	4.16	0.0050	mg/L	4.00		104	80-120			
Antimony, total	0.0391	0.00020	mg/L	0.0400		98	80-120			
Arsenic, total	0.0418	0.00050	mg/L	0.0400		105	80-120			
Barium, total	0.0409	0.0050	mg/L	0.0400		102	80-120			
Beryllium, total	0.0392	0.00010	mg/L	0.0400		98	80-120			
Bismuth, total	0.0400	0.00010	mg/L	0.0400		100	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		103	80-120			
Cadmium, total	0.0392	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	3.95	0.20	mg/L	4.00		99	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J2993, Continued										
LCS (B2J2993-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Chromium, total	0.0414	0.00050	mg/L	0.0400		104	80-120			
Cobalt, total	0.0412	0.00010	mg/L	0.0400		103	80-120			
Copper, total	0.0424	0.00040	mg/L	0.0400		106	80-120			
Iron, total	4.17	0.010	mg/L	4.00		104	80-120			
Lead, total	0.0398	0.00020	mg/L	0.0400		100	80-120			
Lithium, total	0.0393	0.00010	mg/L	0.0400		98	80-120			
Magnesium, total	4.18	0.010	mg/L	4.00		104	80-120			
Manganese, total	0.0419	0.00020	mg/L	0.0400		105	80-120			
Molybdenum, total	0.0389	0.00010	mg/L	0.0400		97	80-120			
Nickel, total	0.0402	0.00040	mg/L	0.0400		101	80-120			
Phosphorus, total	4.11	0.050	mg/L	4.00		103	80-120			
Potassium, total	4.06	0.10	mg/L	4.00		102	80-120			
Selenium, total	0.0397	0.00050	mg/L	0.0400		99	80-120			
Silicon, total	4.1	1.0	mg/L	4.00		103	80-120			
Silver, total	0.0404	0.000050	mg/L	0.0400		101	80-120			
Sodium, total	4.29	0.10	mg/L	4.00		107	80-120			
Strontium, total	0.0440	0.0010	mg/L	0.0400		110	80-120			
Sulfur, total	39.9	3.0	mg/L	40.0		100	80-120			
Tellurium, total	0.0389	0.00050	mg/L	0.0400		97	80-120			
Thallium, total	0.0401	0.000020	mg/L	0.0400		100	80-120			
Thorium, total	0.0407	0.00010	mg/L	0.0400		102	80-120			
Tin, total	0.0404	0.00020	mg/L	0.0400		101	80-120			
Titanium, total	0.0381	0.0050	mg/L	0.0400		95	80-120			
Tungsten, total	0.0408	0.0002	mg/L	0.0400		102	80-120			
Uranium, total	0.0407	0.000020	mg/L	0.0400		102	80-120			
Vanadium, total	0.0400	0.0050	mg/L	0.0400		100	80-120			
Zinc, total	0.0403	0.0040	mg/L	0.0400		101	80-120			
Zirconium, total	0.0395	0.00010	mg/L	0.0400		99	80-120			
Duplicate (B2J2993-DUP1)		**Source: 22J2845-01**		Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, total	0.0234	0.0050	mg/L		0.0231				20	
Antimony, total	< 0.00020	0.00020	mg/L		< 0.00020				20	
Arsenic, total	0.00078	0.00050	mg/L		0.00080				20	
Barium, total	0.0414	0.0050	mg/L		0.0392			6	20	
Beryllium, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Bismuth, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Boron, total	< 0.0500	0.0500	mg/L		< 0.0500				20	
Cadmium, total	< 0.000010	0.000010	mg/L		< 0.000010				20	
Calcium, total	43.1	0.20	mg/L		43.4			< 1	20	
Chromium, total	< 0.00050	0.00050	mg/L		< 0.00050				20	
Cobalt, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Copper, total	0.00162	0.00040	mg/L		0.00159				20	
Iron, total	0.042	0.010	mg/L		0.042				20	
Lead, total	< 0.00020	0.00020	mg/L		< 0.00020				20	
Lithium, total	0.00133	0.00010	mg/L		0.00131			1	20	
Magnesium, total	13.6	0.010	mg/L		13.5			< 1	20	
Manganese, total	0.0155	0.00020	mg/L		0.0152			2	20	
Molybdenum, total	0.00232	0.00010	mg/L		0.00221			5	20	
Nickel, total	0.00064	0.00040	mg/L		0.00064				20	
Phosphorus, total	< 0.050	0.050	mg/L		< 0.050				20	
Potassium, total	2.87	0.10	mg/L		2.86			< 1	20	
Selenium, total	< 0.00050	0.00050	mg/L		< 0.00050				20	
Silicon, total	2.9	1.0	mg/L		2.9				20	
Silver, total	< 0.000050	0.000050	mg/L		< 0.000050				20	
Sodium, total	13.7	0.10	mg/L		13.6			< 1	20	
Strontium, total	0.219	0.0010	mg/L		0.214			2	20	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J2993, Continued										
Duplicate (B2J2993-DUP1), Continued		**Source: 22J2845-01**		Prepared: 2022-10-26, Analyzed: 2022-10-26						
Sulfur, total	9.8	3.0	mg/L		9.5				20	
Tellurium, total	< 0.00050	0.00050	mg/L		< 0.00050				20	
Thallium, total	< 0.000020	0.000020	mg/L		< 0.000020				20	
Thorium, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Tin, total	< 0.00020	0.00020	mg/L		< 0.00020				20	
Titanium, total	< 0.0050	0.0050	mg/L		< 0.0050				20	
Tungsten, total	< 0.0002	0.0010	mg/L		< 0.0002				20	
Uranium, total	0.000975	0.000020	mg/L		0.000988			1	20	
Vanadium, total	< 0.0050	0.0050	mg/L		< 0.0050				20	
Zinc, total	< 0.0040	0.0040	mg/L		< 0.0040				20	
Zirconium, total	< 0.00010	0.00010	mg/L		< 0.00010				20	
Matrix Spike (B2J2993-MS1)		**Source: 22J2845-02**		Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, total	4.37	0.0050	mg/L	4.00	0.265	103	70-130			
Antimony, total	0.0379	0.00020	mg/L	0.0400	< 0.00020	95	70-130			
Arsenic, total	0.0441	0.00050	mg/L	0.0400	0.00067	109	70-130			
Barium, total	0.0766	0.0050	mg/L	0.0400	0.0356	103	70-130			
Beryllium, total	0.0393	0.00010	mg/L	0.0400	< 0.00010	98	70-130			
Bismuth, total	0.0394	0.00010	mg/L	0.0400	< 0.00010	99	70-130			
Boron, total	0.0522	0.0500	mg/L	0.0400	< 0.0500	94	70-130			
Cadmium, total	0.0410	0.000010	mg/L	0.0400	< 0.000010	103	70-130			
Calcium, total	44.4	0.20	mg/L	4.00	41.3	79	70-130			
Chromium, total	0.0423	0.00050	mg/L	0.0400	0.00059	104	70-130			
Cobalt, total	0.0409	0.00010	mg/L	0.0400	0.00020	102	70-130			
Copper, total	0.0425	0.00040	mg/L	0.0400	0.00190	102	70-130			
Iron, total	4.50	0.010	mg/L	4.00	0.268	106	70-130			
Lead, total	0.0405	0.00020	mg/L	0.0400	< 0.00020	101	70-130			
Lithium, total	0.0395	0.00010	mg/L	0.0400	0.00115	96	70-130			
Magnesium, total	15.3	0.010	mg/L	4.00	12.7	67	70-130			MS2
Manganese, total	0.0604	0.00020	mg/L	0.0400	0.0194	102	70-130			
Molybdenum, total	0.0427	0.00010	mg/L	0.0400	0.00188	102	70-130			
Nickel, total	0.0408	0.00040	mg/L	0.0400	0.00090	100	70-130			
Phosphorus, total	4.19	0.050	mg/L	4.00	< 0.050	104	70-130			
Potassium, total	6.37	0.10	mg/L	4.00	2.34	101	70-130			
Selenium, total	0.0400	0.00050	mg/L	0.0400	< 0.00050	100	70-130			
Silicon, total	7.6	1.0	mg/L	4.00	3.9	93	70-130			
Silver, total	0.0416	0.000050	mg/L	0.0400	< 0.000050	104	70-130			
Sodium, total	15.5	0.10	mg/L	4.00	12.3	79	70-130			
Strontium, total	0.267	0.0010	mg/L	0.0400	0.207	150	70-130			MS2
Sulfur, total	47.5	3.0	mg/L	40.0	8.0	99	70-130			
Tellurium, total	0.0416	0.00050	mg/L	0.0400	< 0.00050	104	70-130			
Thallium, total	0.0404	0.000020	mg/L	0.0400	< 0.000020	101	70-130			
Thorium, total	0.0411	0.00010	mg/L	0.0400	< 0.00010	103	70-130			
Tin, total	0.0419	0.00020	mg/L	0.0400	< 0.00020	105	70-130			
Titanium, total	0.0546	0.0050	mg/L	0.0400	0.0117	107	70-130			
Tungsten, total	0.0413	0.0002	mg/L	0.0400	< 0.0002	103	70-130			
Uranium, total	0.0425	0.000020	mg/L	0.0400	0.000914	104	70-130			
Vanadium, total	0.0438	0.0050	mg/L	0.0400	< 0.0050	105	70-130			
Zinc, total	0.0433	0.0040	mg/L	0.0400	< 0.0040	106	70-130			
Zirconium, total	0.0409	0.00010	mg/L	0.0400	0.00015	102	70-130			
Total Metals, Batch B2J3595										
Blank (B2J3595-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	< 0.000010	0.000010	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2845
REPORTED 2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J3595, Continued										
Blank (B2J3595-BLK2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	< 0.000010	0.000010	mg/L							
LCS (B2J3595-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	0.000498	0.000010	mg/L	0.000500		100	80-120			
LCS (B2J3595-BS2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	0.000504	0.000010	mg/L	0.000500		101	80-120			
Duplicate (B2J3595-DUP1)		**Source: 22J2845-01**		Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	< 0.000010	0.000010	mg/L		< 0.000010				20	
Matrix Spike (B2J3595-MS1)		**Source: 22J2845-06**		Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	0.000249	0.000010	mg/L	0.000250	< 0.000010	100	70-130			
Volatile Organic Compounds (VOC), Batch B2J3261										
Blank (B2J3261-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Benzene	< 0.5	0.5	µg/L							
Bromodichloromethane	< 1.0	1.0	µg/L							
Bromoform	< 1.0	1.0	µg/L							
Carbon tetrachloride	< 0.5	0.5	µg/L							
Chlorobenzene	< 1.0	1.0	µg/L							
Chloroethane	< 2.0	2.0	µg/L							
Chloroform	< 1.0	1.0	µg/L							
Dibromochloromethane	< 1.0	1.0	µg/L							
1,2-Dibromoethane	< 0.3	0.3	µg/L							
Dibromomethane	< 1.0	1.0	µg/L							
1,2-Dichlorobenzene	< 0.5	0.5	µg/L							
1,3-Dichlorobenzene	< 1.0	1.0	µg/L							
1,4-Dichlorobenzene	< 1.0	1.0	µg/L							
1,1-Dichloroethane	< 1.0	1.0	µg/L							
1,2-Dichloroethane	< 1.0	1.0	µg/L							
1,1-Dichloroethylene	< 1.0	1.0	µg/L							
cis-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
trans-1,2-Dichloroethylene	< 1.0	1.0	µg/L							
Dichloromethane	< 3.0	3.0	µg/L							
1,2-Dichloropropane	< 1.0	1.0	µg/L							
1,3-Dichloropropene (cis + trans)	< 1.0	1.0	µg/L							
Ethylbenzene	< 1.0	1.0	µg/L							
Methyl tert-butyl ether	< 1.0	1.0	µg/L							
Styrene	< 1.0	1.0	µg/L							
1,1,2,2-Tetrachloroethane	< 0.5	0.5	µg/L							
Tetrachloroethylene	< 1.0	1.0	µg/L							
Toluene	< 1.0	1.0	µg/L							
1,1,1-Trichloroethane	< 1.0	1.0	µg/L							
1,1,2-Trichloroethane	< 1.0	1.0	µg/L							
Trichloroethylene	< 1.0	1.0	µg/L							
Trichlorofluoromethane	< 1.0	1.0	µg/L							
Vinyl chloride	< 1.0	1.0	µg/L							
Xylenes (total)	< 2.0	2.0	µg/L							
Surrogate: Toluene-d8	*21.3*		*µg/L*	25.0		*85*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*22.7*		*µg/L*	24.9		*91*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*19.9*		*µg/L*	24.9		*80*	*70-130*			
LCS (B2J3261-BS1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Benzene	19.8	0.5	µg/L	20.0		99	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J3261, Continued										
LCS (B2J3261-BS1), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Bromodichloromethane	23.6	1.0	µg/L	20.1		117	70-130			
Bromoform	23.8	1.0	µg/L	20.0		119	70-130			
Carbon tetrachloride	14.5	0.5	µg/L	20.1		72	70-130			
Chlorobenzene	20.1	1.0	µg/L	20.1		100	70-130			
Chloroethane	20.2	2.0	µg/L	20.0		101	60-140			
Chloroform	22.2	1.0	µg/L	20.1		110	70-130			
Dibromochloromethane	24.6	1.0	µg/L	20.0		123	70-130			
1,2-Dibromoethane	23.2	0.3	µg/L	20.0		116	70-130			
Dibromomethane	22.5	1.0	µg/L	20.0		112	70-130			
1,2-Dichlorobenzene	21.2	0.5	µg/L	20.1		105	70-130			
1,3-Dichlorobenzene	18.8	1.0	µg/L	20.1		94	70-130			
1,4-Dichlorobenzene	19.0	1.0	µg/L	20.1		94	70-130			
1,1-Dichloroethane	20.5	1.0	µg/L	20.0		102	70-130			
1,2-Dichloroethane	25.0	1.0	µg/L	20.1		124	70-130			
1,1-Dichloroethylene	14.2	1.0	µg/L	20.0		71	70-130			
cis-1,2-Dichloroethylene	20.0	1.0	µg/L	20.0		100	70-130			
trans-1,2-Dichloroethylene	16.2	1.0	µg/L	20.1		81	70-130			
Dichloromethane	23.1	3.0	µg/L	20.1		115	70-130			
1,2-Dichloropropane	21.5	1.0	µg/L	20.1		107	70-130			
1,3-Dichloropropene (cis + trans)	42.2	1.0	µg/L	40.0		105	70-130			
Ethylbenzene	18.0	1.0	µg/L	20.0		90	70-130			
Methyl tert-butyl ether	24.1	1.0	µg/L	20.0		120	70-130			
Styrene	12.9	1.0	µg/L	20.0		64	70-130			SPK
1,1,2,2-Tetrachloroethane	27.8	0.5	µg/L	20.1		139	70-130			SPK
Tetrachloroethylene	13.7	1.0	µg/L	20.0		69	70-130			SPK
Toluene	18.3	1.0	µg/L	20.0		91	70-130			
1,1,1-Trichloroethane	15.3	1.0	µg/L	20.1		76	70-130			
1,1,2-Trichloroethane	23.8	1.0	µg/L	20.1		119	70-130			
Trichloroethylene	16.6	1.0	µg/L	20.1		82	70-130			
Trichlorofluoromethane	13.0	1.0	µg/L	20.0		65	60-140			
Vinyl chloride	16.3	1.0	µg/L	20.0		81	60-140			
Xylenes (total)	54.9	2.0	µg/L	60.0		91	70-130			
Surrogate: Toluene-d8	*21.0*		*µg/L*	25.0		*84*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.3*		*µg/L*	24.9		*102*	*70-130*			
Surrogate: 1,4-Dichlorobenzene-d4	*22.2*		*µg/L*	24.9		*89*	*70-130*			

QC Qualifiers:

MS2	The native sample concentration is greater than the spike concentration hence the matrix spike limits do not apply.
RPD	Relative percent difference (RPD) of duplicate analysis are outside of control limits for unknown reason(s).
RPD1	Relative percent difference(s) (RPD) of one or more analytes on duplicate analysis are outside of control limits due to sample heterogeneity.
SPK	The recovery of this analyte was outside of established control limits.
SPK1	The recovery of this analyte was outside of established control limits. The data was accepted based on performance of other batch QC.

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2845
PROJECT	690667	**REPORTED**	2023-01-20 15:33

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2845-04	2022-11-29	Sample ID	N/A	N/A
22J2845-01	2022-12-14	SampleRegID	N/A	N/A
22J2845-02	2022-12-14	SampleRegID	N/A	N/A
22J2845-03	2022-12-14	SampleRegID	N/A	N/A
22J2845-04	2022-12-14	SampleRegID	N/A	N/A
22J2845-05	2022-12-14	SampleRegID	N/A	N/A
22J2845-06	2022-12-14	SampleRegID	N/A	N/A

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2912
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-22 09:49 / 6.5°C
PROJECT	690667	**REPORTED**	2023-01-20 14:57
PROJECT INFO	Flood Disaster Recovery, Merritt		

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: N/A

This is a revised report; please refer to Appendix 3 for details.

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-3-221021 (22J2912-01) | Matrix: Water | Sampled: 2022-10-21 15:00					
Calculated Parameters					
Hardness, Total (as CaCO3)	**155**	0.500	mg/L	N/A	
Dissolved Metals					
Aluminum, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Antimony, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, dissolved	**0.00072**	0.00050	mg/L	2022-10-26	
Barium, dissolved	**0.0374**	0.0050	mg/L	2022-10-26	
Beryllium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, dissolved	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, dissolved	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, dissolved	**40.9**	0.20	mg/L	2022-10-26	
Chromium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, dissolved	**0.00129**	0.00040	mg/L	2022-10-26	
Iron, dissolved	**0.012**	0.010	mg/L	2022-10-26	
Lead, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, dissolved	**0.00112**	0.00010	mg/L	2022-10-26	
Magnesium, dissolved	**12.8**	0.010	mg/L	2022-10-26	
Manganese, dissolved	**0.00614**	0.00020	mg/L	2022-10-26	
Mercury, dissolved	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, dissolved	**0.00188**	0.00010	mg/L	2022-10-26	
Nickel, dissolved	**0.00047**	0.00040	mg/L	2022-10-26	
Phosphorus, dissolved	< 0.050	0.050	mg/L	2022-10-26	
Potassium, dissolved	**2.55**	0.10	mg/L	2022-10-26	
Selenium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, dissolved	**3.3**	1.0	mg/L	2022-10-26	
Silver, dissolved	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, dissolved	**12.6**	0.10	mg/L	2022-10-26	
Strontium, dissolved	**0.210**	0.0010	mg/L	2022-10-26	
Sulfur, dissolved	**8.5**	3.0	mg/L	2022-10-26	
Tellurium, dissolved	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, dissolved	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, dissolved	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Tungsten, dissolved	< 0.0010	0.0010	mg/L	2022-10-26	
Uranium, dissolved	**0.000865**	0.000020	mg/L	2022-10-26	
Vanadium, dissolved	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, dissolved	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, dissolved	< 0.00010	0.00010	mg/L	2022-10-26	
General Parameters					
Carbon, Total Organic	**6.13**	0.50	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-3-221021 (22J2912-01) | Matrix: Water | Sampled: 2022-10-21 15:00, Continued					
General Parameters, Continued					
Carbon, Dissolved Organic	**5.88**	0.50	mg/L	2022-10-26	
pH	**8.28**	0.10	pH units	2022-10-28	HT2
Solids, Total Dissolved	**200**	15	mg/L	2022-10-27	
Solids, Total Suspended	**3.2**	2.0	mg/L	2022-10-27	
Microbiological Parameters					
Coliforms, Total (Q-Tray)	**816**	1	MPN/100 mL	2022-10-22	
Coliforms, Fecal (Q-Tray)	**22**	1	MPN/100 mL	2022-10-22	
E. coli (Q-Tray)	**22**	1	MPN/100 mL	2022-10-22	
Total Metals					
Aluminum, total	**0.0476**	0.0050	mg/L	2022-10-26	
Antimony, total	< 0.00020	0.00020	mg/L	2022-10-26	
Arsenic, total	**0.00073**	0.00050	mg/L	2022-10-26	
Barium, total	**0.0370**	0.0050	mg/L	2022-10-26	
Beryllium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Bismuth, total	< 0.00010	0.00010	mg/L	2022-10-26	
Boron, total	< 0.0500	0.0500	mg/L	2022-10-26	
Cadmium, total	< 0.000010	0.000010	mg/L	2022-10-26	
Calcium, total	**41.2**	0.20	mg/L	2022-10-26	
Chromium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Cobalt, total	< 0.00010	0.00010	mg/L	2022-10-26	
Copper, total	**0.00145**	0.00040	mg/L	2022-10-26	
Iron, total	**0.062**	0.010	mg/L	2022-10-26	
Lead, total	< 0.00020	0.00020	mg/L	2022-10-26	
Lithium, total	**0.00116**	0.00010	mg/L	2022-10-26	
Magnesium, total	**13.4**	0.010	mg/L	2022-10-26	
Manganese, total	**0.0141**	0.00020	mg/L	2022-10-26	
Mercury, total	< 0.000010	0.000010	mg/L	2022-10-31	
Molybdenum, total	**0.00202**	0.00010	mg/L	2022-10-26	
Nickel, total	**0.00061**	0.00040	mg/L	2022-10-26	
Phosphorus, total	< 0.050	0.050	mg/L	2022-10-26	
Potassium, total	**2.55**	0.10	mg/L	2022-10-26	
Selenium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Silicon, total	**3.4**	1.0	mg/L	2022-10-26	
Silver, total	< 0.000050	0.000050	mg/L	2022-10-26	
Sodium, total	**12.9**	0.10	mg/L	2022-10-26	
Strontium, total	**0.210**	0.0010	mg/L	2022-10-26	
Sulfur, total	**8.8**	3.0	mg/L	2022-10-26	
Tellurium, total	< 0.00050	0.00050	mg/L	2022-10-26	
Thallium, total	< 0.000020	0.000020	mg/L	2022-10-26	
Thorium, total	< 0.00010	0.00010	mg/L	2022-10-26	
Tin, total	< 0.00020	0.00020	mg/L	2022-10-26	
Titanium, total	< 0.0050	0.0050	mg/L	2022-10-26	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Analyzed	Qualifier
SW22-HH1-3-221021 (22J2912-01) | Matrix: Water | Sampled: 2022-10-21 15:00, Continued					
Total Metals, Continued					
Tungsten, total	< 0.0002	0.0010	mg/L	2022-10-26	
Uranium, total	**0.000914**	0.000020	mg/L	2022-10-26	
Vanadium, total	< 0.0050	0.0050	mg/L	2022-10-26	
Zinc, total	< 0.0040	0.0040	mg/L	2022-10-26	
Zirconium, total	< 0.00010	0.00010	mg/L	2022-10-26	
SW22-EH1-2-221021 (22J2912-02) | Matrix: Water | Sampled: 2022-10-21 14:17					
BCMOE Aggregate Hydrocarbons					
EPHw10-19	< 250	250	µg/L	2022-10-28	
EPHw19-32	< 250	250	µg/L	2022-10-28	
Surrogate: 2-Methylnonane (EPH/F2-4)	*98*	*60-140*	%	*2022-10-28*	
SED22-HH1-3 (22J2912-03) | Matrix: Sediment | Sampled: 2022-10-21 15:04					
General Parameters					
Carbon, Total Organic	**0.604**	0.050	% dry	2022-10-24	
Moisture	**10.7**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.20**	0.10	pH units	2022-10-31	
Microbiological Parameters					
Coliforms, Total	< 3.0	3.0	MPN/g dry	2022-10-22	
Coliforms, Fecal	< 3.0	3.0	MPN/g dry	2022-10-22	
E. coli	< 3.0	3.0	MPN/g dry	2022-10-22	
Particle Size Distribution					
> 75 µm	**38.8**	0.1	% dry	2022-10-29	
Classification	**Fine**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**17300**	40	mg/kg dry	2022-10-28	
Antimony	**0.20**	0.10	mg/kg dry	2022-10-28	
Arsenic	**3.39**	0.30	mg/kg dry	2022-10-28	
Barium	**108**	1.0	mg/kg dry	2022-10-28	
Beryllium	**0.32**	0.10	mg/kg dry	2022-10-28	
Boron	< 3.0	2.0	mg/kg dry	2022-10-28	RA3
Cadmium	**0.084**	0.040	mg/kg dry	2022-10-28	
Chromium	**31.0**	1.0	mg/kg dry	2022-10-28	
Cobalt	**11.6**	0.10	mg/kg dry	2022-10-28	
Copper	**31.6**	0.40	mg/kg dry	2022-10-28	
Iron	**28100**	20	mg/kg dry	2022-10-28	
Lead	**2.90**	0.20	mg/kg dry	2022-10-28	
Lithium	**7.95**	0.10	mg/kg dry	2022-10-28	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-3 (22J2912-03) | Matrix: Sediment | Sampled: 2022-10-21 15:04, Continued					
Strong Acid Leachable Metals, Continued					
Manganese	**519**	0.40	mg/kg dry	2022-10-28	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-28	
Molybdenum	**0.44**	0.10	mg/kg dry	2022-10-28	
Nickel	**20.7**	0.60	mg/kg dry	2022-10-28	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-28	
Silver	< 0.10	0.10	mg/kg dry	2022-10-28	
Strontium	**80.7**	0.20	mg/kg dry	2022-10-28	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-28	
Tin	**0.38**	0.20	mg/kg dry	2022-10-28	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-28	
Uranium	**0.546**	0.050	mg/kg dry	2022-10-28	
Vanadium	**82.7**	1.0	mg/kg dry	2022-10-28	
Zinc	**46.4**	2.0	mg/kg dry	2022-10-28	
SED22-EH1-2 (22J2912-04) | Matrix: Sediment | Sampled: 2022-10-21 14:18					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-29	
EPHs19-32	< 50	50	mg/kg dry	2022-10-29	
Surrogate: 2-Methylnonane (EPH/F2-4)	*92*	*60-140*	%	*2022-10-29*	
General Parameters					
Carbon, Total Organic	< 0.050	0.050	% dry	2022-10-24	
Moisture	**11.2**	1.0	% wet	2022-10-27	
pH (1:2 H2O Solution)	**7.87**	0.10	pH units	2022-10-31	
Particle Size Distribution					
> 75 µm	**96.3**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Polychlorinated Biphenyl Aroclors					
PCB-1016	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1221	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1232	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1242	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1248	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1254	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1260	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1262	< 0.040	0.040	mg/kg dry	2022-10-27	
PCB-1268	< 0.040	0.040	mg/kg dry	2022-10-27	
Total PCBs	< 0.120	0.040	mg/kg dry	2022-10-27	
Surrogate: Decachlorobiphenyl	*110*	*50-140*	%	*2022-10-27*	
Strong Acid Leachable Metals					

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-2 (22J2912-04) | Matrix: Sediment | Sampled: 2022-10-21 14:18, Continued					
Strong Acid Leachable Metals, Continued					
Aluminum	**8510**	40	mg/kg dry	2022-10-28	
Antimony	< 0.10	0.10	mg/kg dry	2022-10-28	
Arsenic	**1.38**	0.30	mg/kg dry	2022-10-28	
Barium	**43.4**	1.0	mg/kg dry	2022-10-28	
Beryllium	**0.15**	0.10	mg/kg dry	2022-10-28	
Boron	< 2.0	2.0	mg/kg dry	2022-10-28	
Cadmium	< 0.040	0.040	mg/kg dry	2022-10-28	
Chromium	**14.3**	1.0	mg/kg dry	2022-10-28	
Cobalt	**6.12**	0.10	mg/kg dry	2022-10-28	
Copper	**13.7**	0.40	mg/kg dry	2022-10-28	
Iron	**15200**	20	mg/kg dry	2022-10-28	
Lead	**1.25**	0.20	mg/kg dry	2022-10-28	
Lithium	**4.22**	0.10	mg/kg dry	2022-10-28	
Manganese	**249**	0.40	mg/kg dry	2022-10-28	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-28	
Molybdenum	**0.17**	0.10	mg/kg dry	2022-10-28	
Nickel	**9.78**	0.60	mg/kg dry	2022-10-28	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-28	
Silver	< 0.10	0.10	mg/kg dry	2022-10-28	
Strontium	**36.9**	0.20	mg/kg dry	2022-10-28	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-28	
Tin	< 0.20	0.20	mg/kg dry	2022-10-28	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-28	
Uranium	**0.249**	0.050	mg/kg dry	2022-10-28	
Vanadium	**43.5**	1.0	mg/kg dry	2022-10-28	
Zinc	**24.8**	2.0	mg/kg dry	2022-10-28	
SED22-EH1-3 (22J2912-05) | Matrix: Sediment | Sampled: 2022-10-21 15:35					
General Parameters					
Carbon, Total Organic	**0.103**	0.050	% dry	2022-10-24	
pH (1:2 H2O Solution)	**7.80**	0.10	pH units	2022-10-31	
Particle Size Distribution					
> 75 µm	**87.0**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**10400**	40	mg/kg dry	2022-10-28	
Antimony	**0.20**	0.10	mg/kg dry	2022-10-28	
Arsenic	**3.44**	0.30	mg/kg dry	2022-10-28	
Barium	**51.6**	1.0	mg/kg dry	2022-10-28	
Beryllium	**0.23**	0.10	mg/kg dry	2022-10-28	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-3 (22J2912-05) | Matrix: Sediment | Sampled: 2022-10-21 15:35, Continued					
Strong Acid Leachable Metals, Continued					
Boron	< 3.0	2.0	mg/kg dry	2022-10-28	RA3
Cadmium	**0.070**	0.040	mg/kg dry	2022-10-28	
Chromium	**26.3**	1.0	mg/kg dry	2022-10-28	
Cobalt	**9.29**	0.10	mg/kg dry	2022-10-28	
Copper	**23.1**	0.40	mg/kg dry	2022-10-28	
Iron	**29500**	20	mg/kg dry	2022-10-28	
Lead	**2.43**	0.20	mg/kg dry	2022-10-28	
Lithium	**6.04**	0.10	mg/kg dry	2022-10-28	
Manganese	**403**	0.40	mg/kg dry	2022-10-28	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-28	
Molybdenum	**0.37**	0.10	mg/kg dry	2022-10-28	
Nickel	**14.7**	0.60	mg/kg dry	2022-10-28	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-28	
Silver	< 0.10	0.10	mg/kg dry	2022-10-28	
Strontium	**45.7**	0.20	mg/kg dry	2022-10-28	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-28	
Tin	**0.28**	0.20	mg/kg dry	2022-10-28	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-28	
Uranium	**0.441**	0.050	mg/kg dry	2022-10-28	
Vanadium	**93.3**	1.0	mg/kg dry	2022-10-28	
Zinc	**38.7**	2.0	mg/kg dry	2022-10-28	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

RA3 The Reporting Limit has been raised due to comparable level detected in the blank(s).

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2912
REPORTED 2023-01-20 14:57

Analysis Description	Method Ref.	Technique	Accredited	Location
Carbon, Dissolved Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Carbon, Total Organic in Water	SM 5310 B (2022)	Combustion, Infrared CO2 Detection	✓	Kelowna
Coliforms, Fecal in Soil	TMECC 07.01 B	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Fecal in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Coliforms, Total in Soil	TMECC 07.01 A	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Total in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
Dissolved Metals in Water	EPA 200.8 / EPA 6020B	0.45 µm Filtration / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
E. coli in Soil	TMECC 07.01 C	Most Probable Number / Most Probable Number		Kelowna
E. coli in Water	NA / SM 9223 (2016)	Quanti-Tray / Enzyme Substrate Endo Agar	✓	Kelowna
EPH in Soil	EPA 3570* / BCMOE EPHs*	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-FID)	✓	Richmond
EPH in Water	EPA 3511* / BCMOE EPHw	Hexane MicroExtraction (Base/Neutral) / Gas Chromatography (GC-FID)	✓	Richmond
Hardness in Water	SM 2340 B (2021)	Calculation: 2.497 [diss Ca] + 4.118 [diss Mg]	✓	N/A
Mercury, dissolved in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Mercury, total in Water	EPA 245.7*	BrCl2 Oxidation / Cold Vapor Atomic Fluorescence Spectrometry (CVAFS)	✓	Richmond
Moisture in Soil	ASTM D2974-87*	Gravimetry (Dried at 105C)		N/A
Particle Size in Soil	Carter 55.4*	Mechanical Sieving	✓	Richmond
pH in Soil	Carter 16.2 / SM 4500-H+ B (2021)	1:2 Soil/Water Slurry / Electrometry	✓	Richmond
pH in Water	SM 4500-H+ B (2021)	Electrometry	✓	Kelowna
Polychlorinated Biphenyl Aroclors in Soil	EPA 3570* / EPA 8082A	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-ECD)	✓	Richmond
SALM in Soil	BCMOE SALM V.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
Solids, Total Dissolved in Water	Solids in Water, Filtered / SM 2540 C* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Solids, Total Suspended in Water	Solids in Water, Filtered / SM 2540 D* (2020)	Solids in Water, Filtered / Gravimetry (Dried at 103-105C)	✓	Kelowna
Total Metals in Water	EPA 200.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Glossary of Terms:

RL	Reporting Limit (default)
% dry	Percent (dry weight basis)
% wet	Percent (as received basis)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/kg dry	Milligrams per kilogram (dry weight basis)
mg/L	Milligrams per litre
MPN/100 mL	Most Probable Number per 100 millilitres
MPN/g dry	Most Probable Number per gram (dry weight basis)
pH units	pH < 7 = acidic, ph > 7 = basic
µg/L	Micrograms per litre
ASTM	ASTM International Test Methods
Carter	Soil Sampling and Methods of Analysis, 2nd Edition (2007), Carter/Gregorich
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association
TMECC	Test Method for the Examination of Composting and Compost, US Composting Council

General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Samples will be disposed of 30 days after the test report has been issued or once samples expire, whichever comes first. Longer hold is possible if agreed to in writing.

Please note any regulatory guidelines applied to this report are added as a convenience to the client, at their request, to help provide some initial context to analytical results obtained. Although CARO makes every effort to ensure accuracy of the associated regulatory guideline(s) applied, the guidelines applied cannot be assumed to be correct due to a variety of factors and as such CARO Analytical Services assumes no liability or responsibility for the use of those guidelines to make any decisions. The original source of the regulation should be verified and a review of the guideline(s) should be validated as correct in order to make any decisions arising from the comparison of the analytical data obtained to the relevant regulatory guideline for one's particular circumstances. Further, CARO Analytical Services assumes no liability or responsibility for any loss attributed from the use of these guidelines in any way.

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in "batches" and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J3189										
Blank (B2J3189-BLK1)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2030*		*µg/L*	2200		*92*	*60-140*			
Blank (B2J3189-BLK2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	< 250	250	µg/L							
EPHw19-32	< 250	250	µg/L							
Surrogate: 2-Methylnonane (EPH/F2-4)	*2120*		*µg/L*	2200		*97*	*60-140*			
LCS (B2J3189-BS2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	15000	250	µg/L	15400		97	70-130			
EPHw19-32	21000	250	µg/L	22100		95	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1580*		*µg/L*	2200		*72*	*60-140*			
LCS (B2J3189-BS4)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	17100	250	µg/L	15400		111	70-130			
EPHw19-32	24200	250	µg/L	22100		109	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*1610*		*µg/L*	2200		*73*	*60-140*			
LCS Dup (B2J3189-BSD2)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	16900	250	µg/L	15400		110	70-130	12	20	
EPHw19-32	23600	250	µg/L	22100		107	70-130	12	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1670*		*µg/L*	2200		*76*	*60-140*			
LCS Dup (B2J3189-BSD4)				Prepared: 2022-10-27, Analyzed: 2022-10-28						
EPHw10-19	16800	250	µg/L	13300		127	70-130	2	20	
EPHw19-32	23500	250	µg/L	19000		124	70-130	3	20	
Surrogate: 2-Methylnonane (EPH/F2-4)	*1820*		*µg/L*	2200		*83*	*60-140*			
BCMOE Aggregate Hydrocarbons, Batch B2J3334										
Blank (B2J3334-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*64.0*		*mg/kg wet*	75.1		*85*	*60-140*			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J3334, Continued										
Blank (B2J3334-BLK2)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*85.6*		*mg/kg wet*	82.9		*103*	*60-140*			
LCS (B2J3334-BS2)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	3200	50	mg/kg wet	2750		116	70-130			
EPHs19-32	4900	50	mg/kg wet	3950		123	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*69.0*		*mg/kg wet*	79.4		*87*	*60-140*			
LCS (B2J3334-BS4)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	3000	50	mg/kg wet	2760		109	70-130			
EPHs19-32	4600	50	mg/kg wet	3960		116	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*60.8*		*mg/kg wet*	79.6		*76*	*60-140*			
Dissolved Metals, Batch B2J2988										
Blank (B2J2988-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, dissolved	< 0.0050	0.0050	mg/L							
Antimony, dissolved	< 0.00020	0.00020	mg/L							
Arsenic, dissolved	< 0.00050	0.00050	mg/L							
Barium, dissolved	< 0.0050	0.0050	mg/L							
Beryllium, dissolved	< 0.00010	0.00010	mg/L							
Bismuth, dissolved	< 0.00010	0.00010	mg/L							
Boron, dissolved	< 0.0500	0.0500	mg/L							
Cadmium, dissolved	< 0.000010	0.000010	mg/L							
Calcium, dissolved	< 0.20	0.20	mg/L							
Chromium, dissolved	< 0.00050	0.00050	mg/L							
Cobalt, dissolved	< 0.00010	0.00010	mg/L							
Copper, dissolved	< 0.00040	0.00040	mg/L							
Iron, dissolved	< 0.010	0.010	mg/L							
Lead, dissolved	< 0.00020	0.00020	mg/L							
Lithium, dissolved	< 0.00010	0.00010	mg/L							
Magnesium, dissolved	< 0.010	0.010	mg/L							
Manganese, dissolved	< 0.00020	0.00020	mg/L							
Molybdenum, dissolved	< 0.00010	0.00010	mg/L							
Nickel, dissolved	< 0.00040	0.00040	mg/L							
Phosphorus, dissolved	< 0.050	0.050	mg/L							
Potassium, dissolved	< 0.10	0.10	mg/L							
Selenium, dissolved	< 0.00050	0.00050	mg/L							
Silicon, dissolved	< 1.0	1.0	mg/L							
Silver, dissolved	< 0.000050	0.000050	mg/L							
Sodium, dissolved	< 0.10	0.10	mg/L							
Strontium, dissolved	< 0.0010	0.0010	mg/L							
Sulfur, dissolved	< 3.0	3.0	mg/L							
Tellurium, dissolved	< 0.00050	0.00050	mg/L							
Thallium, dissolved	< 0.000020	0.000020	mg/L							
Thorium, dissolved	< 0.00010	0.00010	mg/L							
Tin, dissolved	< 0.00020	0.00020	mg/L							
Titanium, dissolved	< 0.0050	0.0050	mg/L							
Tungsten, dissolved	< 0.0010	0.0010	mg/L							
Uranium, dissolved	< 0.000020	0.000020	mg/L							
Vanadium, dissolved	< 0.0050	0.0050	mg/L							
Zinc, dissolved	< 0.0040	0.0040	mg/L							
Zirconium, dissolved	< 0.00010	0.00010	mg/L							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J2988, Continued										
LCS (B2J2988-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, dissolved	4.22	0.0050	mg/L	4.00		105	80-120			
Antimony, dissolved	0.0426	0.00020	mg/L	0.0400		107	80-120			
Arsenic, dissolved	0.0431	0.00050	mg/L	0.0400		108	80-120			
Barium, dissolved	0.0412	0.0050	mg/L	0.0400		103	80-120			
Beryllium, dissolved	0.0400	0.00010	mg/L	0.0400		100	80-120			
Bismuth, dissolved	0.0410	0.00010	mg/L	0.0400		103	80-120			
Boron, dissolved	< 0.0500	0.0500	mg/L	0.0400		106	80-120			
Cadmium, dissolved	0.0417	0.000010	mg/L	0.0400		104	80-120			
Calcium, dissolved	4.07	0.20	mg/L	4.00		102	80-120			
Chromium, dissolved	0.0422	0.00050	mg/L	0.0400		105	80-120			
Cobalt, dissolved	0.0418	0.00010	mg/L	0.0400		105	80-120			
Copper, dissolved	0.0423	0.00040	mg/L	0.0400		106	80-120			
Iron, dissolved	4.31	0.010	mg/L	4.00		108	80-120			
Lead, dissolved	0.0416	0.00020	mg/L	0.0400		104	80-120			
Lithium, dissolved	0.0404	0.00010	mg/L	0.0400		101	80-120			
Magnesium, dissolved	4.23	0.010	mg/L	4.00		106	80-120			
Manganese, dissolved	0.0426	0.00020	mg/L	0.0400		106	80-120			
Molybdenum, dissolved	0.0406	0.00010	mg/L	0.0400		102	80-120			
Nickel, dissolved	0.0413	0.00040	mg/L	0.0400		103	80-120			
Phosphorus, dissolved	4.09	0.050	mg/L	4.00		102	80-120			
Potassium, dissolved	4.21	0.10	mg/L	4.00		105	80-120			
Selenium, dissolved	0.0410	0.00050	mg/L	0.0400		102	80-120			
Silicon, dissolved	4.2	1.0	mg/L	4.00		104	80-120			
Silver, dissolved	0.0426	0.000050	mg/L	0.0400		107	80-120			
Sodium, dissolved	4.37	0.10	mg/L	4.00		109	80-120			
Strontium, dissolved	0.0437	0.0010	mg/L	0.0400		109	80-120			
Sulfur, dissolved	40.7	3.0	mg/L	40.0		102	80-120			
Tellurium, dissolved	0.0415	0.00050	mg/L	0.0400		104	80-120			
Thallium, dissolved	0.0414	0.000020	mg/L	0.0400		104	80-120			
Thorium, dissolved	0.0414	0.00010	mg/L	0.0400		104	80-120			
Tin, dissolved	0.0416	0.00020	mg/L	0.0400		104	80-120			
Titanium, dissolved	0.0420	0.0050	mg/L	0.0400		105	80-120			
Tungsten, dissolved	0.0417	0.0010	mg/L	0.0400		104	80-120			
Uranium, dissolved	0.0415	0.000020	mg/L	0.0400		104	80-120			
Vanadium, dissolved	0.0420	0.0050	mg/L	0.0400		105	80-120			
Zinc, dissolved	0.0423	0.0040	mg/L	0.0400		106	80-120			
Zirconium, dissolved	0.0414	0.00010	mg/L	0.0400		103	80-120			
Dissolved Metals, Batch B2J3594										
Blank (B2J3594-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3594-BLK2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3594-BLK3)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
Blank (B2J3594-BLK4)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	< 0.000010	0.000010	mg/L							
LCS (B2J3594-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000512	0.000010	mg/L	0.000500		102	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Dissolved Metals, Batch B2J3594, Continued										
LCS (B2J3594-BS2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000513	0.000010	mg/L	0.000500		103	80-120			
LCS (B2J3594-BS3)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000544	0.000010	mg/L	0.000500		109	80-120			
LCS (B2J3594-BS4)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, dissolved	0.000552	0.000010	mg/L	0.000500		110	80-120			
General Parameters, Batch B2J2390										
Blank (B2J2390-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	< 0.050	0.050	% dry							
Blank (B2J2390-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.050	0.050	% dry							
Reference (B2J2390-SRM1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	0.772	0.050	% dry	0.645		120	80-120			
Reference (B2J2390-SRM2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	0.688	0.050	% dry	0.645		107	80-120			
General Parameters, Batch B2J2556										
Blank (B2J2556-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2556-BLK2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2556-BLK3)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
Blank (B2J2556-BLK4)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	< 0.50	0.50	mg/L							
Carbon, Dissolved Organic	< 0.50	0.50	mg/L							
LCS (B2J2556-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.47	0.50	mg/L	10.0		95	78-116			
Carbon, Dissolved Organic	9.56	0.50	mg/L	10.0		96	78-116			
LCS (B2J2556-BS2)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.31	0.50	mg/L	10.0		93	78-116			
Carbon, Dissolved Organic	9.33	0.50	mg/L	10.0		93	78-116			
LCS (B2J2556-BS3)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.44	0.50	mg/L	10.0		94	78-116			
Carbon, Dissolved Organic	9.31	0.50	mg/L	10.0		93	78-116			
LCS (B2J2556-BS4)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Carbon, Total Organic	9.63	0.50	mg/L	10.0		96	78-116			
Carbon, Dissolved Organic	9.08	0.50	mg/L	10.0		91	78-116			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2649										
Reference (B2J2649-SRM1)					Prepared: 2022-10-24, Analyzed: 2022-10-24					
Moisture	99.0	1.0	% wet	6.5		99	80-120			
General Parameters, Batch B2J3021										
Blank (B2J3021-BLK1)					Prepared: 2022-10-26, Analyzed: 2022-10-27					
Solids, Total Dissolved	< 15	15	mg/L							
LCS (B2J3021-BS1)					Prepared: 2022-10-26, Analyzed: 2022-10-27					
Solids, Total Dissolved	235	15	mg/L	240		98	85-115			
General Parameters, Batch B2J3024										
Reference (B2J3024-SRM1)					Prepared: 2022-10-27, Analyzed: 2022-10-27					
Moisture	99.0	1.0	% wet	6.5		100	80-120			
General Parameters, Batch B2J3060										
Blank (B2J3060-BLK1)					Prepared: 2022-10-26, Analyzed: 2022-10-27					
Solids, Total Suspended	< 2.0	2.0	mg/L							
LCS (B2J3060-BS1)					Prepared: 2022-10-26, Analyzed: 2022-10-27					
Solids, Total Suspended	90.0	10.0	mg/L	100		90	85-115			
General Parameters, Batch B2J3365										
Reference (B2J3365-SRM1)					Prepared: 2022-10-28, Analyzed: 2022-10-28					
pH	7.02	0.10	pH units	7.01		100	98-102			
General Parameters, Batch B2J3577										
Reference (B2J3577-SRM1)					Prepared: 2022-10-31, Analyzed: 2022-10-31					
pH (1:2 H2O Solution)	6.55	0.10	pH units	6.91		95	95-105			
Reference (B2J3577-SRM2)					Prepared: 2022-10-31, Analyzed: 2022-10-31					
pH (1:2 H2O Solution)	7.29	0.10	pH units	6.91		105	95-105			
Reference (B2J3577-SRM3)					Prepared: 2022-10-31, Analyzed: 2022-10-31					
pH (1:2 H2O Solution)	6.63	0.10	pH units	6.91		96	95-105			
Microbiological Parameters, Batch B2J2617										
Blank (B2J2617-BLK1)					Prepared: 2022-10-22, Analyzed: 2022-10-22					
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Blank (B2J2617-BLK2)					Prepared: 2022-10-22, Analyzed: 2022-10-22					
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Microbiological Parameters, Batch B2J2657										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Microbiological Parameters, Batch B2J2657, Continued										
Blank (B2J2657-BLK1)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Coliforms, Total (Q-Tray)	< 1	1	MPN/100 mL							
Coliforms, Fecal (Q-Tray)	< 1	1	MPN/100 mL							
E. coli (Q-Tray)	< 1	1	MPN/100 mL							
Duplicate (B2J2657-DUP1)				**Source: 22J2912-01**	Prepared: 2022-10-22, Analyzed: 2022-10-22					
Coliforms, Total (Q-Tray)	605	1	MPN/100 mL		816			30	80	
Coliforms, Fecal (Q-Tray)	17	1	MPN/100 mL		22			30	80	
E. coli (Q-Tray)	17	1	MPN/100 mL		22			30	80	
Polychlorinated Biphenyl Aroclors, Batch B2J3010										
Blank (B2J3010-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
PCB-1016	< 0.040	0.040	mg/kg wet							
PCB-1221	< 0.040	0.040	mg/kg wet							
PCB-1232	< 0.040	0.040	mg/kg wet							
PCB-1242	< 0.040	0.040	mg/kg wet							
PCB-1248	< 0.040	0.040	mg/kg wet							
PCB-1254	< 0.040	0.040	mg/kg wet							
PCB-1260	< 0.040	0.040	mg/kg wet							
PCB-1262	< 0.040	0.040	mg/kg wet							
PCB-1268	< 0.040	0.040	mg/kg wet							
Total PCBs	< 0.120	0.120	mg/kg wet							
Surrogate: Decachlorobiphenyl	*0.443*		*mg/kg wet*	0.317		*140*	*50-140*			
LCS (B2J3010-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-27						
PCB-1016	2.11	0.040	mg/kg wet	1.64		128	60-130			
PCB-1260	1.53	0.040	mg/kg wet	1.64		93	60-130			
Surrogate: Decachlorobiphenyl	*0.444*		*mg/kg wet*	0.327		*136*	*50-140*			
Strong Acid Leachable Metals, Batch B2J3346										
Blank (B2J3346-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	2.8	2.0	mg/kg dry							BLK
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	0.67	0.20	mg/kg dry							BLK
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J3346, Continued										
Blank (B2J3346-BLK1), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2J3346-BS1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Aluminum	989	40	mg/kg dry	1000		99	80-120			
Antimony	9.21	0.10	mg/kg dry	10.0		92	80-120			
Arsenic	9.58	0.30	mg/kg dry	10.0		96	80-120			
Barium	9.4	1.0	mg/kg dry	10.0		94	80-120			
Beryllium	9.84	0.10	mg/kg dry	10.0		98	80-120			
Boron	10.2	2.0	mg/kg dry	10.0		102	80-120			
Cadmium	9.41	0.040	mg/kg dry	10.0		94	80-120			
Chromium	9.9	1.0	mg/kg dry	10.0		99	80-120			
Cobalt	9.83	0.10	mg/kg dry	10.0		98	80-120			
Copper	9.84	0.40	mg/kg dry	10.0		98	80-120			
Iron	991	20	mg/kg dry	1000		99	80-120			
Lead	9.74	0.20	mg/kg dry	10.0		97	80-120			
Lithium	9.76	0.10	mg/kg dry	10.0		98	80-120			
Manganese	9.92	0.40	mg/kg dry	10.0		99	80-120			
Mercury	1.00	0.040	mg/kg dry	1.00		100	80-120			
Molybdenum	9.61	0.10	mg/kg dry	10.0		96	80-120			
Nickel	10.0	0.60	mg/kg dry	10.0		100	80-120			
Selenium	9.73	0.20	mg/kg dry	10.0		97	80-120			
Silver	9.60	0.10	mg/kg dry	10.0		96	80-120			
Strontium	9.75	0.20	mg/kg dry	10.0		97	80-120			
Thallium	9.70	0.10	mg/kg dry	10.0		97	80-120			
Tin	9.28	0.20	mg/kg dry	10.0		93	80-120			
Tungsten	9.78	0.20	mg/kg dry	10.0		98	80-120			
Uranium	9.92	0.050	mg/kg dry	10.0		99	80-120			
Vanadium	9.8	1.0	mg/kg dry	10.0		98	80-120			
Zinc	9.7	2.0	mg/kg dry	10.0		97	80-120			
Reference (B2J3346-SRM1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Aluminum	11400	40	mg/kg dry	11500		99	70-130			
Antimony	0.61	0.10	mg/kg dry	0.724		85	70-130			
Arsenic	79.9	0.30	mg/kg dry	82.1		97	70-130			
Barium	39.6	1.0	mg/kg dry	40.0		99	70-130			
Beryllium	0.36	0.10	mg/kg dry	0.369		98	70-130			
Chromium	63.0	1.0	mg/kg dry	63.1		100	70-130			
Cobalt	10.0	0.10	mg/kg dry	10.4		96	70-130			
Copper	18.5	0.40	mg/kg dry	19.8		93	70-130			
Iron	19000	20	mg/kg dry	20200		94	70-130			
Lead	17.6	0.20	mg/kg dry	17.3		102	70-130			
Manganese	301	0.40	mg/kg dry	315		96	70-130			
Mercury	0.107	0.040	mg/kg dry	0.110		98	70-130			
Molybdenum	0.59	0.10	mg/kg dry	0.619		95	70-130			
Nickel	30.4	0.60	mg/kg dry	31.7		96	70-130			
Silver	1.40	0.10	mg/kg dry	1.75		80	70-130			
Strontium	22.2	0.20	mg/kg dry	20.3		109	70-130			
Uranium	1.17	0.050	mg/kg dry	1.18		100	70-130			
Vanadium	34.9	1.0	mg/kg dry	33.5		104	70-130			
Zinc	37.1	2.0	mg/kg dry	40.2		92	70-130			

Total Metals, Batch B2J2993

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J2993, Continued										
Blank (B2J2993-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, total	< 0.0050	0.0050	mg/L							
Antimony, total	< 0.00020	0.00020	mg/L							
Arsenic, total	< 0.00050	0.00050	mg/L							
Barium, total	< 0.0050	0.0050	mg/L							
Beryllium, total	< 0.00010	0.00010	mg/L							
Bismuth, total	< 0.00010	0.00010	mg/L							
Boron, total	< 0.0500	0.0500	mg/L							
Cadmium, total	< 0.000010	0.000010	mg/L							
Calcium, total	< 0.20	0.20	mg/L							
Chromium, total	< 0.00050	0.00050	mg/L							
Cobalt, total	< 0.00010	0.00010	mg/L							
Copper, total	< 0.00040	0.00040	mg/L							
Iron, total	< 0.010	0.010	mg/L							
Lead, total	< 0.00020	0.00020	mg/L							
Lithium, total	< 0.00010	0.00010	mg/L							
Magnesium, total	< 0.010	0.010	mg/L							
Manganese, total	< 0.00020	0.00020	mg/L							
Molybdenum, total	< 0.00010	0.00010	mg/L							
Nickel, total	< 0.00040	0.00040	mg/L							
Phosphorus, total	< 0.050	0.050	mg/L							
Potassium, total	< 0.10	0.10	mg/L							
Selenium, total	< 0.00050	0.00050	mg/L							
Silicon, total	< 1.0	1.0	mg/L							
Silver, total	< 0.000050	0.000050	mg/L							
Sodium, total	< 0.10	0.10	mg/L							
Strontium, total	< 0.0010	0.0010	mg/L							
Sulfur, total	< 3.0	3.0	mg/L							
Tellurium, total	< 0.00050	0.00050	mg/L							
Thallium, total	< 0.000020	0.000020	mg/L							
Thorium, total	< 0.00010	0.00010	mg/L							
Tin, total	< 0.00020	0.00020	mg/L							
Titanium, total	< 0.0050	0.0050	mg/L							
Tungsten, total	< 0.0002	0.0002	mg/L							
Uranium, total	< 0.000020	0.000020	mg/L							
Vanadium, total	< 0.0050	0.0050	mg/L							
Zinc, total	< 0.0040	0.0040	mg/L							
Zirconium, total	< 0.00010	0.00010	mg/L							
LCS (B2J2993-BS1)				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Aluminum, total	4.16	0.0050	mg/L	4.00		104	80-120			
Antimony, total	0.0391	0.00020	mg/L	0.0400		98	80-120			
Arsenic, total	0.0418	0.00050	mg/L	0.0400		105	80-120			
Barium, total	0.0409	0.0050	mg/L	0.0400		102	80-120			
Beryllium, total	0.0392	0.00010	mg/L	0.0400		98	80-120			
Bismuth, total	0.0400	0.00010	mg/L	0.0400		100	80-120			
Boron, total	< 0.0500	0.0500	mg/L	0.0400		103	80-120			
Cadmium, total	0.0392	0.000010	mg/L	0.0400		98	80-120			
Calcium, total	3.95	0.20	mg/L	4.00		99	80-120			
Chromium, total	0.0414	0.00050	mg/L	0.0400		104	80-120			
Cobalt, total	0.0412	0.00010	mg/L	0.0400		103	80-120			
Copper, total	0.0424	0.00040	mg/L	0.0400		106	80-120			
Iron, total	4.17	0.010	mg/L	4.00		104	80-120			
Lead, total	0.0398	0.00020	mg/L	0.0400		100	80-120			
Lithium, total	0.0393	0.00010	mg/L	0.0400		98	80-120			
Magnesium, total	4.18	0.010	mg/L	4.00		104	80-120			
Manganese, total	0.0419	0.00020	mg/L	0.0400		105	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Total Metals, Batch B2J2993, Continued										
LCS (B2J2993-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-10-26						
Molybdenum, total	0.0389	0.00010	mg/L	0.0400		97	80-120			
Nickel, total	0.0402	0.00040	mg/L	0.0400		101	80-120			
Phosphorus, total	4.11	0.050	mg/L	4.00		103	80-120			
Potassium, total	4.06	0.10	mg/L	4.00		102	80-120			
Selenium, total	0.0397	0.00050	mg/L	0.0400		99	80-120			
Silicon, total	4.1	1.0	mg/L	4.00		103	80-120			
Silver, total	0.0404	0.000050	mg/L	0.0400		101	80-120			
Sodium, total	4.29	0.10	mg/L	4.00		107	80-120			
Strontium, total	0.0440	0.0010	mg/L	0.0400		110	80-120			
Sulfur, total	39.9	3.0	mg/L	40.0		100	80-120			
Tellurium, total	0.0389	0.00050	mg/L	0.0400		97	80-120			
Thallium, total	0.0401	0.000020	mg/L	0.0400		100	80-120			
Thorium, total	0.0407	0.00010	mg/L	0.0400		102	80-120			
Tin, total	0.0404	0.00020	mg/L	0.0400		101	80-120			
Titanium, total	0.0381	0.0050	mg/L	0.0400		95	80-120			
Tungsten, total	0.0408	0.0002	mg/L	0.0400		102	80-120			
Uranium, total	0.0407	0.000020	mg/L	0.0400		102	80-120			
Vanadium, total	0.0400	0.0050	mg/L	0.0400		100	80-120			
Zinc, total	0.0403	0.0040	mg/L	0.0400		101	80-120			
Zirconium, total	0.0395	0.00010	mg/L	0.0400		99	80-120			
Total Metals, Batch B2J3595										
Blank (B2J3595-BLK1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	< 0.000010	0.000010	mg/L							
Blank (B2J3595-BLK2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	< 0.000010	0.000010	mg/L							
LCS (B2J3595-BS1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	0.000498	0.000010	mg/L	0.000500		100	80-120			
LCS (B2J3595-BS2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
Mercury, total	0.000504	0.000010	mg/L	0.000500		101	80-120			

QC Qualifiers:

BLK Analyte concentration in the Method Blank is above the Reporting Limit (RL).

APPENDIX 3: REVISION HISTORY

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2912
PROJECT	690667	**REPORTED**	2023-01-20 14:57

Sample ID	Changed	Change	Analysis	Analyte(s)
22J2912-01	2022-12-14	SampleRegID	N/A	N/A
22J2912-02	2022-12-14	SampleRegID	N/A	N/A
22J2912-03	2022-12-14	SampleRegID	N/A	N/A
22J2912-04	2022-12-14	SampleRegID	N/A	N/A
22J2912-05	2022-12-14	SampleRegID	N/A	N/A

CERTIFICATE OF ANALYSIS

REPORTED TO	SNC-Lavalin Inc. (Burnaby) 3777 Kingsway, Suite 1300 Burnaby, BC V5H3Z7		
ATTENTION	Tania Lazorko	**WORK ORDER**	22J2913
PO NUMBER	690667	**RECEIVED / TEMP**	2022-10-21 15:36 / 8.0°C
PROJECT	690667	**REPORTED**	2023-02-14 12:17
PROJECT INFO	Flood Disaster Recovery, Merritt		

Introduction:

CARO Analytical Services is a testing laboratory full of smart, engaged scientists driven to make the world a safer and healthier place. Through our clients' projects we become an essential element for a better world. We employ methods conducted in accordance with recognized professional standards using accepted testing methodologies and quality control efforts. CARO is accredited by the Canadian Association for Laboratories Accreditation (CALA) to ISO/IEC 17025:2017 for specific tests listed in the scope of accreditation approved by CALA.

Big Picture Sidekicks

You know that the sample you collected after snowshoeing to site, digging 5 meters, and racing to get it on a plane so you can submit it to the lab for time sensitive results needed to make important and expensive decisions (whew) is VERY important. We know that too.

We've Got Chemistry

It's simple. We figure the more you enjoy working with our fun and engaged team members; the more likely you are to give us continued opportunities to support you.

Ahead of the Curve

Through research, regulation knowledge, and instrumentation, we are your analytical centre for the technical knowledge you need, BEFORE you need it, so you can stay up to date and in the know.

Work Order Comments: Custody Seals Intact: N/A

By engaging our services, you are agreeing to CARO Analytical Service's Standard Terms and Conditions outlined here: https://www.caro.ca/terms-conditions

If you have any questions or concerns, please contact me at bwhitehead@caro.ca

Authorized By:

Brent Whitehead
Account Manager

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-2 (22J2913-01) | Matrix: Sediment | Sampled: 2022-10-20 14:11					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-29	
EPHs19-32	< 50	50	mg/kg dry	2022-10-29	
Surrogate: 2-Methylnonane (EPH/F2-4)	*93*	*60-140*	%	*2022-10-29*	
General Parameters					
Carbon, Total Organic	< 0.050	0.050	% dry	2022-10-24	
Moisture	**16.8**	1.0	% wet	2022-10-27	
pH (1:2 H2O Solution)	**7.63**	0.10	pH units	2022-10-31	
Microbiological Parameters					
Coliforms, Total	< 3.0	3.0	MPN/g dry	2022-10-22	HT1
Coliforms, Fecal	< 3.0	3.0	MPN/g dry	2022-10-22	HT1
E. coli	< 3.0	3.0	MPN/g dry	2022-10-22	HT1
Particle Size Distribution					
> 75 µm	**98.7**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**8450**	40	mg/kg dry	2022-10-28	
Antimony	**0.15**	0.10	mg/kg dry	2022-10-28	
Arsenic	**2.44**	0.30	mg/kg dry	2022-10-28	
Barium	**47.4**	1.0	mg/kg dry	2022-10-28	
Beryllium	**0.18**	0.10	mg/kg dry	2022-10-28	
Boron	< 3.0	2.0	mg/kg dry	2022-10-28	RA3
Cadmium	**0.053**	0.040	mg/kg dry	2022-10-28	
Chromium	**12.6**	1.0	mg/kg dry	2022-10-28	
Cobalt	**6.83**	0.10	mg/kg dry	2022-10-28	
Copper	**16.1**	0.40	mg/kg dry	2022-10-28	
Iron	**18700**	20	mg/kg dry	2022-10-28	
Lead	**2.00**	0.20	mg/kg dry	2022-10-28	
Lithium	**5.90**	0.10	mg/kg dry	2022-10-28	
Manganese	**372**	0.40	mg/kg dry	2022-10-28	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-28	
Molybdenum	**0.28**	0.10	mg/kg dry	2022-10-28	
Nickel	**9.49**	0.60	mg/kg dry	2022-10-28	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-28	
Silver	< 0.10	0.10	mg/kg dry	2022-10-28	
Strontium	**28.7**	0.20	mg/kg dry	2022-10-28	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-28	
Tin	**0.21**	0.20	mg/kg dry	2022-10-28	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-28	
Uranium	**0.291**	0.050	mg/kg dry	2022-10-28	
Vanadium	**48.0**	1.0	mg/kg dry	2022-10-28	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-2 (22J2913-01) | Matrix: Sediment | Sampled: 2022-10-20 14:11, Continued					
Strong Acid Leachable Metals, Continued					
Zinc	**31.9**	2.0	mg/kg dry	2022-10-28	
SED22-HH1-4 (22J2913-02) | Matrix: Sediment | Sampled: 2022-10-20 17:00					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-29	
EPHs19-32	< 50	50	mg/kg dry	2022-10-29	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*82*	*60-140*	%	*2022-10-29*	
General Parameters					
Carbon, Total Organic	**0.429**	0.050	% dry	2022-10-24	
Moisture	**17.6**	1.0	% wet	2022-10-27	
pH (1:2 H2O Solution)	**7.46**	0.10	pH units	2022-10-31	
Microbiological Parameters					
Coliforms, Total	**28**	3.0	MPN/g dry	2022-10-22	HT1
Coliforms, Fecal	**28**	3.0	MPN/g dry	2022-10-22	HT1
E. coli	**28**	3.0	MPN/g dry	2022-10-22	HT1
Particle Size Distribution					
> 75 µm	**47.9**	0.1	% dry	2022-10-29	
Classification	**Fine**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-4 (22J2913-02) | Matrix: Sediment | Sampled: 2022-10-20 17:00, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*106*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*87*	*50-140*	%	*2022-11-02*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-29	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-4 (22J2913-02) | Matrix: Sediment | Sampled: 2022-10-20 17:00, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-29	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-29	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-29	
Surrogate: Acenaphthene-d10	*94*	*50-140*	%	*2022-10-29*	
Surrogate: Chrysene-d12	*91*	*50-140*	%	*2022-10-29*	
Surrogate: Naphthalene-d8	*104*	*50-140*	%	*2022-10-29*	
Surrogate: Perylene-d12	*92*	*50-140*	%	*2022-10-29*	
Surrogate: Phenanthrene-d10	*99*	*55-140*	%	*2022-10-29*	
Strong Acid Leachable Metals					
Aluminum	**12900**	40	mg/kg dry	2022-10-29	
Antimony	**0.18**	0.10	mg/kg dry	2022-10-29	
Arsenic	**2.31**	0.30	mg/kg dry	2022-10-29	
Barium	**70.3**	1.0	mg/kg dry	2022-10-29	
Beryllium	**0.27**	0.10	mg/kg dry	2022-10-29	
Boron	**3.6**	2.0	mg/kg dry	2022-10-29	
Cadmium	**0.069**	0.040	mg/kg dry	2022-10-29	
Chromium	**19.9**	1.0	mg/kg dry	2022-10-29	
Cobalt	**8.75**	0.10	mg/kg dry	2022-10-29	
Copper	**26.0**	0.40	mg/kg dry	2022-10-29	
Iron	**23600**	20	mg/kg dry	2022-10-29	
Lead	**2.69**	0.20	mg/kg dry	2022-10-29	
Lithium	**8.27**	0.10	mg/kg dry	2022-10-29	
Manganese	**412**	0.40	mg/kg dry	2022-10-29	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-29	
Molybdenum	**0.47**	0.10	mg/kg dry	2022-10-29	
Nickel	**14.4**	0.60	mg/kg dry	2022-10-29	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-29	
Silver	< 0.10	0.10	mg/kg dry	2022-10-29	
Strontium	**64.9**	0.20	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-4 (22J2913-02) | Matrix: Sediment | Sampled: 2022-10-20 17:00, Continued					
Strong Acid Leachable Metals, Continued					
Thallium	< 0.10	0.10	mg/kg dry	2022-10-29	
Tin	**0.31**	0.20	mg/kg dry	2022-10-29	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-29	
Uranium	**0.409**	0.050	mg/kg dry	2022-10-29	
Vanadium	**69.5**	1.0	mg/kg dry	2022-10-29	
Zinc	**38.2**	2.0	mg/kg dry	2022-10-29	
SED22-HH1-5 (22J2913-03) | Matrix: Sediment | Sampled: 2022-10-21 09:29					
General Parameters					
Carbon, Total Organic	**0.540**	0.050	% dry	2022-10-24	
Moisture	**19.2**	1.0	% wet	2022-10-27	
pH (1:2 H2O Solution)	**8.10**	0.10	pH units	2022-10-31	
Microbiological Parameters					
Coliforms, Total	**5700**	3.0	MPN/g dry	2022-10-22	
Coliforms, Fecal	**90**	3.0	MPN/g dry	2022-10-22	
E. coli	**90**	3.0	MPN/g dry	2022-10-22	
Particle Size Distribution					
> 75 µm	**8.9**	0.1	% dry	2022-10-29	
Classification	**Fine**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**8020**	40	mg/kg dry	2022-10-29	
Antimony	**0.14**	0.10	mg/kg dry	2022-10-29	
Arsenic	**2.49**	0.30	mg/kg dry	2022-10-29	
Barium	**45.7**	1.0	mg/kg dry	2022-10-29	
Beryllium	**0.18**	0.10	mg/kg dry	2022-10-29	
Boron	**2.3**	2.0	mg/kg dry	2022-10-29	
Cadmium	< 0.040	0.040	mg/kg dry	2022-10-29	
Chromium	**11.6**	1.0	mg/kg dry	2022-10-29	
Cobalt	**6.44**	0.10	mg/kg dry	2022-10-29	
Copper	**14.6**	0.40	mg/kg dry	2022-10-29	
Iron	**18300**	20	mg/kg dry	2022-10-29	
Lead	**1.78**	0.20	mg/kg dry	2022-10-29	
Lithium	**5.70**	0.10	mg/kg dry	2022-10-29	
Manganese	**305**	0.40	mg/kg dry	2022-10-29	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-29	
Molybdenum	**0.26**	0.10	mg/kg dry	2022-10-29	
Nickel	**8.51**	0.60	mg/kg dry	2022-10-29	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-29	
Silver	< 0.10	0.10	mg/kg dry	2022-10-29	
Strontium	**30.7**	0.20	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-HH1-5 (22J2913-03) | Matrix: Sediment | Sampled: 2022-10-21 09:29, Continued					
Strong Acid Leachable Metals, Continued					
Thallium	< 0.10	0.10	mg/kg dry	2022-10-29	
Tin	< 0.20	0.20	mg/kg dry	2022-10-29	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-29	
Uranium	**0.252**	0.050	mg/kg dry	2022-10-29	
Vanadium	**46.2**	1.0	mg/kg dry	2022-10-29	
Zinc	**30.2**	2.0	mg/kg dry	2022-10-29	
SED22-EH1-4 (22J2913-04) | Matrix: Sediment | Sampled: 2022-10-20 15:44					
General Parameters					
Carbon, Total Organic	**0.574**	0.050	% dry	2022-10-24	
pH (1:2 H2O Solution)	**8.21**	0.10	pH units	2022-10-31	
Particle Size Distribution					
> 75 µm	**41.1**	0.1	% dry	2022-10-29	
Classification	**Fine**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**12200**	40	mg/kg dry	2022-10-29	
Antimony	**0.15**	0.10	mg/kg dry	2022-10-29	
Arsenic	**2.14**	0.30	mg/kg dry	2022-10-29	
Barium	**66.3**	1.0	mg/kg dry	2022-10-29	
Beryllium	**0.24**	0.10	mg/kg dry	2022-10-29	
Boron	**2.3**	2.0	mg/kg dry	2022-10-29	
Cadmium	**0.070**	0.040	mg/kg dry	2022-10-29	
Chromium	**19.4**	1.0	mg/kg dry	2022-10-29	
Cobalt	**8.79**	0.10	mg/kg dry	2022-10-29	
Copper	**22.5**	0.40	mg/kg dry	2022-10-29	
Iron	**23100**	20	mg/kg dry	2022-10-29	
Lead	**2.57**	0.20	mg/kg dry	2022-10-29	
Lithium	**7.76**	0.10	mg/kg dry	2022-10-29	
Manganese	**414**	0.40	mg/kg dry	2022-10-29	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-29	
Molybdenum	**0.45**	0.10	mg/kg dry	2022-10-29	
Nickel	**13.9**	0.60	mg/kg dry	2022-10-29	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-29	
Silver	< 0.10	0.10	mg/kg dry	2022-10-29	
Strontium	**60.5**	0.20	mg/kg dry	2022-10-29	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-29	
Tin	**0.34**	0.20	mg/kg dry	2022-10-29	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-29	
Uranium	**0.366**	0.050	mg/kg dry	2022-10-29	
Vanadium	**65.8**	1.0	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-4 (22J2913-04) | Matrix: Sediment | Sampled: 2022-10-20 15:44, Continued					
Strong Acid Leachable Metals, Continued					
Zinc	**37.2**	2.0	mg/kg dry	2022-10-29	
SED22-EH1-5 (22J2913-05) | Matrix: Sediment | Sampled: 2022-10-21 10:02					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-29	
EPHs19-32	< 50	50	mg/kg dry	2022-10-29	
Surrogate: 2-Methylnonane (EPH/F2-4)	*92*	*60-140*	%	*2022-10-29*	
General Parameters					
Carbon, Total Organic	**0.972**	0.050	% dry	2022-10-24	
Moisture	**30.0**	1.0	% wet	2022-10-27	
pH (1:2 H2O Solution)	**8.12**	0.10	pH units	2022-10-31	
Particle Size Distribution					
> 75 µm	**2.0**	0.1	% dry	2022-10-29	
Classification	**Fine**		% dry	2022-10-29	
Strong Acid Leachable Metals					
Aluminum	**15500**	40	mg/kg dry	2022-10-29	
Antimony	**0.24**	0.10	mg/kg dry	2022-10-29	
Arsenic	**3.24**	0.30	mg/kg dry	2022-10-29	
Barium	**114**	1.0	mg/kg dry	2022-10-29	
Beryllium	**0.33**	0.10	mg/kg dry	2022-10-29	
Boron	**3.2**	2.0	mg/kg dry	2022-10-29	
Cadmium	**0.123**	0.040	mg/kg dry	2022-10-29	
Chromium	**24.8**	1.0	mg/kg dry	2022-10-29	
Cobalt	**10.4**	0.10	mg/kg dry	2022-10-29	
Copper	**35.0**	0.40	mg/kg dry	2022-10-29	
Iron	**23700**	20	mg/kg dry	2022-10-29	
Lead	**3.65**	0.20	mg/kg dry	2022-10-29	
Lithium	**7.98**	0.10	mg/kg dry	2022-10-29	
Manganese	**590**	0.40	mg/kg dry	2022-10-29	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-29	
Molybdenum	**0.68**	0.10	mg/kg dry	2022-10-29	
Nickel	**21.6**	0.60	mg/kg dry	2022-10-29	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-29	
Silver	< 0.10	0.10	mg/kg dry	2022-10-29	
Strontium	**101**	0.20	mg/kg dry	2022-10-29	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-29	
Tin	**0.40**	0.20	mg/kg dry	2022-10-29	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-29	
Uranium	**0.533**	0.050	mg/kg dry	2022-10-29	
Vanadium	**63.0**	1.0	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-EH1-5 (22J2913-05) | Matrix: Sediment | Sampled: 2022-10-21 10:02, Continued					
Strong Acid Leachable Metals, Continued					
Zinc	**48.0**	2.0	mg/kg dry	2022-10-29	
SED22-CC1-1 (22J2913-06) | Matrix: Sediment | Sampled: 2022-10-21 09:00					
BCMOE Aggregate Hydrocarbons					
EPHs10-19	< 50	50	mg/kg dry	2022-10-29	
EPHs19-32	< 50	50	mg/kg dry	2022-10-29	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	< 50	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*91*	*60-140*	%	*2022-10-29*	
General Parameters					
Carbon, Total Organic	**0.234**	0.050	% dry	2022-10-24	
Moisture	**20.3**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**8.64**	0.10	pH units	2022-10-31	
Microbiological Parameters					
Coliforms, Total	**11**	3.0	MPN/g dry	2022-10-22	
Coliforms, Fecal	< 3.8	3.0	MPN/g dry	2022-10-22	
E. coli	< 3.8	3.0	MPN/g dry	2022-10-22	
Particle Size Distribution					
> 75 µm	**93.9**	0.1	% dry	2022-10-29	
Classification	**Coarse**		% dry	2022-10-29	
Pesticides, Herbicides, and Fungicides					
Alachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Aldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Atrazine and metabolites	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Azinphos-methyl	< 0.0100	0.0100	mg/kg dry	2022-11-02	
alpha-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
beta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
delta-BHC	< 0.0050	0.0050	mg/kg dry	2022-11-02	
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromacil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Bromoxynil	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Butachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Captan	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorothalonil	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Chlorpyrifos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Cyanazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
DDT, Total	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Deltamethrin	< 0.0500	0.0500	mg/kg dry	2022-11-02	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC1-1 (22J2913-06) | Matrix: Sediment | Sampled: 2022-10-21 09:00, Continued					
Pesticides, Herbicides, and Fungicides, Continued					
Diazinon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Dichlorvos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Diclofop-methyl	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dieldrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Dimethoate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Disulfoton	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Diuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Endosulfan I + II	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endosulfan sulfate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin aldehyde	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Endrin ketone	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Heptachlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Heptachlor epoxide	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Linuron	< 0.0400	0.0400	mg/kg dry	2022-11-02	
Malathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Methoxychlor	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Methyl parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metolachlor	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Metribuzin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Parathion	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Permethrin	< 0.0177	0.0050	mg/kg dry	2022-11-02	RA1
Phorate	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometon	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Prometryne	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Simazine	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Sulfotep	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Tebuthiuron	< 0.0200	0.0200	mg/kg dry	2022-11-02	
Temephos (Abate)	< 0.0500	0.0500	mg/kg dry	2022-11-02	
Terbufos	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Triallate	< 0.0050	0.0050	mg/kg dry	2022-11-02	
Trifluralin	< 0.0100	0.0100	mg/kg dry	2022-11-02	
Surrogate: Tributyl Phosphate	*116*	*50-140*	%	*2022-11-02*	
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*102*	*50-140*	%	*2022-11-02*	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-29	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC1-1 (22J2913-06) | Matrix: Sediment | Sampled: 2022-10-21 09:00, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-29	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-29	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-29	
Surrogate: Acenaphthene-d10	*98*	*50-140*	%	*2022-10-29*	
Surrogate: Chrysene-d12	*95*	*50-140*	%	*2022-10-29*	
Surrogate: Naphthalene-d8	*109*	*50-140*	%	*2022-10-29*	
Surrogate: Perylene-d12	*99*	*50-140*	%	*2022-10-29*	
Surrogate: Phenanthrene-d10	*103*	*55-140*	%	*2022-10-29*	
Strong Acid Leachable Metals					
Aluminum	**11800**	40	mg/kg dry	2022-10-29	
Antimony	**0.21**	0.10	mg/kg dry	2022-10-29	
Arsenic	**3.44**	0.30	mg/kg dry	2022-10-29	
Barium	**48.7**	1.0	mg/kg dry	2022-10-29	
Beryllium	**0.26**	0.10	mg/kg dry	2022-10-29	
Boron	**2.5**	2.0	mg/kg dry	2022-10-29	
Cadmium	**0.096**	0.040	mg/kg dry	2022-10-29	
Chromium	**25.8**	1.0	mg/kg dry	2022-10-29	
Cobalt	**8.76**	0.10	mg/kg dry	2022-10-29	
Copper	**20.9**	0.40	mg/kg dry	2022-10-29	
Iron	**23100**	20	mg/kg dry	2022-10-29	
Lead	**2.26**	0.20	mg/kg dry	2022-10-29	
Lithium	**7.38**	0.10	mg/kg dry	2022-10-29	
Manganese	**417**	0.40	mg/kg dry	2022-10-29	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-29	
Molybdenum	**0.44**	0.10	mg/kg dry	2022-10-29	
Nickel	**20.3**	0.60	mg/kg dry	2022-10-29	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-29	
Silver	< 0.10	0.10	mg/kg dry	2022-10-29	
Strontium	**60.5**	0.20	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC1-1 (22J2913-06) | Matrix: Sediment | Sampled: 2022-10-21 09:00, Continued					
Strong Acid Leachable Metals, Continued					
Thallium	< 0.10	0.10	mg/kg dry	2022-10-29	
Tin	**0.31**	0.20	mg/kg dry	2022-10-29	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-29	
Uranium	**0.338**	0.050	mg/kg dry	2022-10-29	
Vanadium	**62.1**	1.0	mg/kg dry	2022-10-29	
Zinc	**43.8**	2.0	mg/kg dry	2022-10-29	
SED22-CC1-3 (22J2913-07) | Matrix: Sediment | Sampled: 2022-10-21 11:00					
BCMOE Aggregate Hydrocarbons					
VHs (6-10)	< 44	20	mg/kg dry	2022-10-28	RA3
VPHs	< 44	44	mg/kg dry	N/A	
EPHs10-19	< 50	50	mg/kg dry	2022-10-29	
EPHs19-32	**66**	50	mg/kg dry	2022-10-29	
LEPHs	< 50	50	mg/kg dry	N/A	
HEPHs	**66**	50	mg/kg dry	N/A	
Surrogate: 2-Methylnonane (EPH/F2-4)	*86*	*60-140*	%	*2022-10-29*	
General Parameters					
Carbon, Total Organic	**2.07**	0.050	% dry	2022-10-24	
Moisture	**7.4**	1.0	% wet	2022-10-24	
pH (1:2 H2O Solution)	**7.67**	0.10	pH units	2022-10-31	
Particle Size Distribution					
> 75 µm	**9.3**	0.1	% dry	2022-10-29	
Classification	**Fine**		% dry	2022-10-29	
Polycyclic Aromatic Hydrocarbons (PAH)					
Acenaphthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Acenaphthylene	< 0.050	0.050	mg/kg dry	2022-10-29	
Anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benz(a)anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(a)pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg dry	2022-10-29	
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
2-Chloronaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Chrysene	< 0.050	0.050	mg/kg dry	2022-10-29	
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg dry	2022-10-29	
Fluoranthene	< 0.050	0.050	mg/kg dry	2022-10-29	
Fluorene	< 0.050	0.050	mg/kg dry	2022-10-29	
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
1-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC1-3 (22J2913-07) | Matrix: Sediment | Sampled: 2022-10-21 11:00, Continued					
Polycyclic Aromatic Hydrocarbons (PAH), Continued					
2-Methylnaphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Naphthalene	< 0.050	0.050	mg/kg dry	2022-10-29	
Phenanthrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Pyrene	< 0.050	0.050	mg/kg dry	2022-10-29	
Quinoline	< 0.050	0.050	mg/kg dry	2022-10-29	
Surrogate: Acenaphthene-d10	*102*	*50-140*	%	*2022-10-29*	
Surrogate: Chrysene-d12	*92*	*50-140*	%	*2022-10-29*	
Surrogate: Naphthalene-d8	*112*	*50-140*	%	*2022-10-29*	
Surrogate: Perylene-d12	*93*	*50-140*	%	*2022-10-29*	
Surrogate: Phenanthrene-d10	*107*	*55-140*	%	*2022-10-29*	
Strong Acid Leachable Metals					
Aluminum	**18900**	40	mg/kg dry	2022-10-29	
Antimony	**0.17**	0.10	mg/kg dry	2022-10-29	
Arsenic	**2.28**	0.30	mg/kg dry	2022-10-29	
Barium	**115**	1.0	mg/kg dry	2022-10-29	
Beryllium	**0.45**	0.10	mg/kg dry	2022-10-29	
Boron	**5.9**	2.0	mg/kg dry	2022-10-29	
Cadmium	**0.156**	0.040	mg/kg dry	2022-10-29	
Chromium	**34.4**	1.0	mg/kg dry	2022-10-29	
Cobalt	**13.3**	0.10	mg/kg dry	2022-10-29	
Copper	**32.5**	0.40	mg/kg dry	2022-10-29	
Iron	**26700**	20	mg/kg dry	2022-10-29	
Lead	**4.41**	0.20	mg/kg dry	2022-10-29	
Lithium	**6.56**	0.10	mg/kg dry	2022-10-29	
Manganese	**624**	0.40	mg/kg dry	2022-10-29	
Mercury	< 0.040	0.040	mg/kg dry	2022-10-29	
Molybdenum	**0.48**	0.10	mg/kg dry	2022-10-29	
Nickel	**38.5**	0.60	mg/kg dry	2022-10-29	
Selenium	< 0.20	0.20	mg/kg dry	2022-10-29	
Silver	< 0.10	0.10	mg/kg dry	2022-10-29	
Strontium	**163**	0.20	mg/kg dry	2022-10-29	
Thallium	< 0.10	0.10	mg/kg dry	2022-10-29	
Tin	**0.53**	0.20	mg/kg dry	2022-10-29	
Tungsten	< 0.20	0.20	mg/kg dry	2022-10-29	
Uranium	**0.632**	0.050	mg/kg dry	2022-10-29	
Vanadium	**71.8**	1.0	mg/kg dry	2022-10-29	
Zinc	**53.6**	2.0	mg/kg dry	2022-10-29	
Volatile Organic Compounds (VOC)					
Benzene	**0.032**	0.030	mg/kg dry	2022-10-28	
Bromodichloromethane	< 0.100	0.100	mg/kg dry	2022-10-28	
Bromoform	< 0.100	0.100	mg/kg dry	2022-10-28	
Carbon tetrachloride	< 0.050	0.050	mg/kg dry	2022-10-28	

TEST RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
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Analyte	Result	RL	Units	Analyzed	Qualifier
SED22-CC1-3 (22J2913-07) | Matrix: Sediment | Sampled: 2022-10-21 11:00, Continued					
Volatile Organic Compounds (VOC), Continued					
Chlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-28	
Chloroform	< 0.050	0.050	mg/kg dry	2022-10-28	
Dibromochloromethane	< 0.100	0.100	mg/kg dry	2022-10-28	
1,2-Dibromoethane	< 0.100	0.100	mg/kg dry	2022-10-28	
Dibromomethane	< 0.100	0.100	mg/kg dry	2022-10-28	
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-28	
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-28	
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg dry	2022-10-28	
1,1-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-28	
1,2-Dichloroethane	< 0.050	0.050	mg/kg dry	2022-10-28	
1,1-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-28	
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-28	
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg dry	2022-10-28	
Dichloromethane	< 0.100	0.100	mg/kg dry	2022-10-28	
1,2-Dichloropropane	< 0.050	0.050	mg/kg dry	2022-10-28	
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg dry	2022-10-28	
Ethylbenzene	< 0.050	0.050	mg/kg dry	2022-10-28	
Methyl tert-butyl ether	< 0.040	0.040	mg/kg dry	2022-10-28	
Styrene	< 0.050	0.050	mg/kg dry	2022-10-28	
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg dry	2022-10-28	
Tetrachloroethylene	< 0.050	0.050	mg/kg dry	2022-10-28	
Toluene	< 0.200	0.200	mg/kg dry	2022-10-28	
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-28	
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg dry	2022-10-28	
Trichloroethylene	< 0.040	0.040	mg/kg dry	2022-10-28	
Trichlorofluoromethane	< 0.100	0.100	mg/kg dry	2022-10-28	
Vinyl chloride	< 0.100	0.100	mg/kg dry	2022-10-28	
Xylenes (total)	< 0.100	0.100	mg/kg dry	2022-10-28	
Surrogate: Toluene-d8	*104*	*60-140*	%	*2022-10-28*	
Surrogate: 4-Bromofluorobenzene	*85*	*60-140*	%	*2022-10-28*	
Surrogate: 1,4-Dichlorobenzene-d4	*89*	*60-140*	%	*2022-10-28*	

Sample Qualifiers:

HT1	The sample was prepared and/or analyzed past the recommended holding time.
RA1	The Reporting Limit has been raised due to matrix interference.
RA3	The Reporting Limit has been raised due to comparable level detected in the blank(s).

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
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Analysis Description	Method Ref.	Technique	Accredited	Location
Coliforms, Fecal in Soil	TMECC 07.01 B	Most Probable Number / Most Probable Number		Kelowna
Coliforms, Total in Soil	TMECC 07.01 A	Most Probable Number / Most Probable Number		Kelowna
E. coli in Soil	TMECC 07.01 C	Most Probable Number / Most Probable Number		Kelowna
EPH in Soil	EPA 3570* / BCMOE EPHs*	Shaker Extraction (Hexane-Acetone 1:1) / Gas Chromatography (GC-FID)	✓	Richmond
HEPHs in Soil	BCMOE LEPH/HEPH	Calculation		N/A
LEPHs in Soil	BCMOE LEPH/HEPH	Calculation		N/A
Moisture in Soil	ASTM D2974-87*	Gravimetry (Dried at 105C)		N/A
Particle Size in Soil	Carter 55.4*	Mechanical Sieving	✓	Richmond
Pesticides in Soil	EPA 3570* / EPA 8270D*	Shaker Extraction (DCM) / GC-MSD (SIM)	✓	Richmond
pH in Soil	Carter 16.2 / SM 4500-H+ B (2021)	1:2 Soil/Water Slurry / Electrometry	✓	Richmond
Polycyclic Aromatic Hydrocarbons in Soil	EPA 3570* / EPA 8270D	Shaker Extraction (Hexane-Acetone 1:1) / GC-MSD (SIM)	✓	Richmond
SALM in Soil	BCMOE SALM V.2 / EPA 6020B	HNO3+HCl Hot Block Digestion / Inductively Coupled Plasma-Mass Spectroscopy (ICP-MS)	✓	Richmond
VH in Soil	EPA 5035A/5030B / BCMOE VHs	Methanol Extract, Purge&Trap / Purge&Trap or Headspace, Gas Chromatography (GC-FID)	✓	Richmond
Volatile Organic Compounds in Soil	EPA 5035A/5030B / EPA 8260D	Methanol Extract, Purge&Trap / GC-MSD (SIM)	✓	Richmond
VPHs in Soil	BCMOE VPH	Calculation: VH - (Benzene + Toluene + Ethylbenzene + Xylenes + Styrene)		N/A

Note: An asterisk in the Method Reference indicates that the CARO method has been modified from the reference method

Glossary of Terms:

RL	Reporting Limit (default)
% dry	Percent (dry weight basis)
% wet	Percent (as received basis)
<	Less than the specified Reporting Limit (RL) - the actual RL may be higher than the default RL due to various factors
mg/kg dry	Milligrams per kilogram (dry weight basis)
MPN/g dry	Most Probable Number per gram (dry weight basis)
pH units	pH < 7 = acidic, ph > 7 = basic
ASTM	ASTM International Test Methods
BCMOE	British Columbia Environmental Laboratory Manual, British Columbia Ministry of Environment
Carter	Soil Sampling and Methods of Analysis, 2nd Edition (2007), Carter/Gregorich
EPA	United States Environmental Protection Agency Test Methods
SM	Standard Methods for the Examination of Water and Wastewater, American Public Health Association
TMECC	Test Method for the Examination of Composting and Compost, US Composting Council

APPENDIX 1: SUPPORTING INFORMATION

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
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General Comments:

The results in this report apply to the received samples analyzed in accordance with the Chain of Custody document. This analytical report must be reproduced in its entirety. CARO is not responsible for any loss or damage resulting directly or indirectly from error or omission in the conduct of testing. Liability is limited to the cost of analysis. Caro will dispose of all samples within 30 days of sample receipt, unless otherwise agreed.

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APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
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The following section displays the quality control (QC) data that is associated with your sample data. Groups of samples are prepared in “batches” and analyzed in conjunction with QC samples that ensure your data is of the highest quality. Common QC types include:

- **Method Blank (Blk)**: A blank sample that undergoes sample processing identical to that carried out for the test samples. Method blank results are used to assess contamination from the laboratory environment and reagents.
- **Duplicate (Dup)**: An additional or second portion of a randomly selected sample in the analytical run carried through the entire analytical process. Duplicates provide a measure of the analytical method's precision (reproducibility).
- **Blank Spike (BS)**: A sample of known concentration which undergoes processing identical to that carried out for test samples, also referred to as a laboratory control sample (LCS). Blank spikes provide a measure of the analytical method's accuracy.
- **Matrix Spike (MS)**: A second aliquot of sample is fortified with a known concentration of target analytes and carried through the entire analytical process. Matrix spikes evaluate potential matrix effects that may affect the analyte recovery.
- **Reference Material (SRM)**: A homogenous material of similar matrix to the samples, certified for the parameter(s) listed. Reference Materials ensure that the analytical process is adequate to achieve acceptable recoveries of the parameter(s) tested.

Each QC type is analyzed at a 5-10% frequency, i.e. one blank/duplicate/spike for every 10-20 samples. For all types of QC, the specified recovery (% Rec) and relative percent difference (RPD) limits are derived from long-term method performance averages and/or prescribed by the reference method.

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
BCMOE Aggregate Hydrocarbons, Batch B2J2951										
Blank (B2J2951-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-28						
VHs (6-10)	30	20	mg/kg wet							BLK
LCS (B2J2951-BS2)				Prepared: 2022-10-25, Analyzed: 2022-10-28						
VHs (6-10)	330	20	mg/kg wet	341		97	70-130			
BCMOE Aggregate Hydrocarbons, Batch B2J3334										
Blank (B2J3334-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*64.0*		*mg/kg wet*	75.1		*85*	*60-140*			
Blank (B2J3334-BLK2)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	< 50	50	mg/kg wet							
EPHs19-32	< 50	50	mg/kg wet							
Surrogate: 2-Methylnonane (EPH/F2-4)	*85.6*		*mg/kg wet*	82.9		*103*	*60-140*			
LCS (B2J3334-BS2)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	3200	50	mg/kg wet	2750		116	70-130			
EPHs19-32	4900	50	mg/kg wet	3950		123	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*69.0*		*mg/kg wet*	79.4		*87*	*60-140*			
LCS (B2J3334-BS4)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
EPHs10-19	3000	50	mg/kg wet	2760		109	70-130			
EPHs19-32	4600	50	mg/kg wet	3960		116	70-130			
Surrogate: 2-Methylnonane (EPH/F2-4)	*60.8*		*mg/kg wet*	79.6		*76*	*60-140*			
General Parameters, Batch B2J2390										
Blank (B2J2390-BLK1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	< 0.050	0.050	% dry							
Blank (B2J2390-BLK2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	< 0.050	0.050	% dry							

APPENDIX 2: QUALITY CONTROL RESULTS

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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
General Parameters, Batch B2J2390, Continued										
Reference (B2J2390-SRM1)				Prepared: 2022-10-21, Analyzed: 2022-10-21						
Carbon, Total Organic	0.772	0.050	% dry	0.645		120	80-120			
Reference (B2J2390-SRM2)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Carbon, Total Organic	0.688	0.050	% dry	0.645		107	80-120			
General Parameters, Batch B2J2649										
Reference (B2J2649-SRM1)				Prepared: 2022-10-24, Analyzed: 2022-10-24						
Moisture	99.0	1.0	% wet	6.5		99	80-120			
General Parameters, Batch B2J3024										
Duplicate (B2J3024-DUP1)				**Source: 22J2913-05**	Prepared: 2022-10-27, Analyzed: 2022-10-27					
Moisture	99.0	1.0	% wet		30.0			107.0	40	
Reference (B2J3024-SRM1)				Prepared: 2022-10-27, Analyzed: 2022-10-27						
Moisture	99.0	1.0	% wet	6.5		100	80-120			
General Parameters, Batch B2J3577										
Reference (B2J3577-SRM1)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
pH (1:2 H2O Solution)	6.55	0.10	pH units	6.91		95	95-105			
Reference (B2J3577-SRM2)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
pH (1:2 H2O Solution)	7.29	0.10	pH units	6.91		105	95-105			
Reference (B2J3577-SRM3)				Prepared: 2022-10-31, Analyzed: 2022-10-31						
pH (1:2 H2O Solution)	6.63	0.10	pH units	6.91		96	95-105			
Microbiological Parameters, Batch B2J2617										
Blank (B2J2617-BLK1)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Blank (B2J2617-BLK2)				Prepared: 2022-10-22, Analyzed: 2022-10-22						
Coliforms, Total	< 3.0	3.0	MPN/g wet							
Coliforms, Fecal	< 3.0	3.0	MPN/g wet							
E. coli	< 3.0	3.0	MPN/g wet							
Particle Size Distribution, Batch B2J2854										
Duplicate (B2J2854-DUP1)				**Source: 22J2913-04**	Prepared: 2022-10-29, Analyzed: 2022-10-29					
> 75 µm	49.4	0.1	% dry		41.1			18	20	
Classification	Coarse		% dry		Fine			18		
Pesticides, Herbicides, and Fungicides, Batch B2J2996										
Blank (B2J2996-BLK1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	< 0.0050	0.0050	mg/kg wet							
Aldrin	< 0.0050	0.0050	mg/kg wet							
Atrazine and metabolites	< 0.0050	0.0050	mg/kg wet							
Azinphos-methyl	< 0.0100	0.0100	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2913
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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
Blank (B2J2996-BLK1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
alpha-BHC	< 0.0050	0.0050	mg/kg wet							
beta-BHC	< 0.0050	0.0050	mg/kg wet							
delta-BHC	< 0.0050	0.0050	mg/kg wet							
gamma-BHC (Lindane)	< 0.0050	0.0050	mg/kg wet							
Bromacil	< 0.0050	0.0050	mg/kg wet							
Bromoxynil	< 0.0200	0.0200	mg/kg wet							
Butachlor	< 0.0050	0.0050	mg/kg wet							
Captan	< 0.0200	0.0200	mg/kg wet							
Chlordane (cis + trans)	< 0.0050	0.0050	mg/kg wet							
Chlorothalonil	< 0.0050	0.0050	mg/kg wet							
Chlorpyrifos	< 0.0100	0.0100	mg/kg wet							
Cyanazine	< 0.0100	0.0100	mg/kg wet							
DDT, Total	< 0.0100	0.0100	mg/kg wet							
Deltamethrin	< 0.0500	0.0500	mg/kg wet							
Diazinon	< 0.0100	0.0100	mg/kg wet							
Dichlorvos	< 0.0100	0.0100	mg/kg wet							
Diclofop-methyl	< 0.0050	0.0050	mg/kg wet							
Dieldrin	< 0.0050	0.0050	mg/kg wet							
Dimethoate	< 0.0100	0.0100	mg/kg wet							
Disulfoton	< 0.0200	0.0200	mg/kg wet							
Diuron	< 0.0200	0.0200	mg/kg wet							
Endosulfan I + II	< 0.0050	0.0050	mg/kg wet							
Endosulfan sulfate	< 0.0050	0.0050	mg/kg wet							
Endrin	< 0.0050	0.0050	mg/kg wet							
Endrin aldehyde	< 0.0050	0.0050	mg/kg wet							
Endrin ketone	< 0.0050	0.0050	mg/kg wet							
Fenchlorphos (Ronnel)	< 0.0100	0.0100	mg/kg wet							
Heptachlor	< 0.0050	0.0050	mg/kg wet							
Heptachlor epoxide	< 0.0050	0.0050	mg/kg wet							
Linuron	< 0.0400	0.0400	mg/kg wet							
Malathion	< 0.0100	0.0100	mg/kg wet							
Methoxychlor	< 0.0050	0.0050	mg/kg wet							
Methyl parathion	< 0.0100	0.0100	mg/kg wet							
Metolachlor	< 0.0100	0.0100	mg/kg wet							
Metribuzin	< 0.0100	0.0100	mg/kg wet							
Parathion	< 0.0100	0.0100	mg/kg wet							
Pentachloronitrobenzene	< 0.0050	0.0050	mg/kg wet							
Permethrin	< 0.0050	0.0050	mg/kg wet							
Phorate	< 0.0100	0.0100	mg/kg wet							
Prometon	< 0.0100	0.0100	mg/kg wet							
Prometryne	< 0.0050	0.0050	mg/kg wet							
Simazine	< 0.0100	0.0100	mg/kg wet							
Sulfotep	< 0.0100	0.0100	mg/kg wet							
Tebuthiuron	< 0.0200	0.0200	mg/kg wet							
Temephos (Abate)	< 0.0500	0.0500	mg/kg wet							
Terbufos	< 0.0100	0.0100	mg/kg wet							
Triallate	< 0.0050	0.0050	mg/kg wet							
Trifluralin	< 0.0100	0.0100	mg/kg wet							
Surrogate: Tributyl Phosphate	*0.0845*		*mg/kg wet*	0.0802		*105*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0715*		*mg/kg wet*	0.0804		*89*	*50-140*			
LCS (B2J2996-BS1)				Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	0.0807	0.0050	mg/kg wet	0.0834		97	50-140			
Aldrin	0.0898	0.0050	mg/kg wet	0.0826		109	50-140			
Atrazine and metabolites	0.156	0.0050	mg/kg wet	0.167		93	50-140			
Azinphos-methyl	0.105	0.0100	mg/kg wet	0.0810		130	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
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Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
LCS (B2J2996-BS1), Continued				Prepared: 2022-10-26, Analyzed: 2022-11-01						
alpha-BHC	0.0715	0.0050	mg/kg wet	0.0834		86	50-140			
beta-BHC	0.0752	0.0050	mg/kg wet	0.0834		90	50-140			
delta-BHC	0.0747	0.0050	mg/kg wet	0.0826		90	50-140			
gamma-BHC (Lindane)	0.0713	0.0050	mg/kg wet	0.0826		86	50-140			
Bromacil	0.0986	0.0050	mg/kg wet	0.0834		118	50-140			
Bromoxynil	0.0776	0.0200	mg/kg wet	0.0808		96	50-140			
Butachlor	0.0964	0.0050	mg/kg wet	0.0834		116	50-140			
Captan	0.0931	0.0200	mg/kg wet	0.0822		113	50-140			
Chlordane (cis + trans)	0.156	0.0050	mg/kg wet	0.166		94	50-140			
Chlorothalonil	0.0731	0.0050	mg/kg wet	0.0834		88	50-140			
Chlorpyrifos	0.0802	0.0100	mg/kg wet	0.0826		97	50-140			
Cyanazine	0.0899	0.0100	mg/kg wet	0.0834		108	50-140			
DDT, Total	0.529	0.0100	mg/kg wet	0.493		107	50-140			
Deltamethrin	0.950	0.0500	mg/kg wet	0.834		114	50-140			
Diazinon	0.0831	0.0100	mg/kg wet	0.0826		101	50-140			
Dichlorvos	0.0810	0.0100	mg/kg wet	0.0900		90	50-140			
Diclofop-methyl	0.0912	0.0050	mg/kg wet	0.0842		108	50-140			
Dieldrin	0.0848	0.0050	mg/kg wet	0.0826		103	50-140			
Dimethoate	0.0888	0.0100	mg/kg wet	0.0818		109	50-140			
Disulfoton	0.0710	0.0200	mg/kg wet	0.0842		84	50-140			
Diuron	0.0906	0.0200	mg/kg wet	0.0875		104	50-140			
Endosulfan I + II	0.170	0.0050	mg/kg wet	0.166		103	50-140			
Endosulfan sulfate	0.0855	0.0050	mg/kg wet	0.0834		103	50-140			
Endrin	0.0869	0.0050	mg/kg wet	0.0834		104	50-140			
Endrin aldehyde	0.0919	0.0050	mg/kg wet	0.0826		111	50-140			
Endrin ketone	0.0811	0.0050	mg/kg wet	0.0834		97	50-140			
Fenchlorphos (Ronnel)	0.0738	0.0100	mg/kg wet	0.0851		87	50-140			
Heptachlor	0.0753	0.0050	mg/kg wet	0.0834		90	50-140			
Heptachlor epoxide	0.0764	0.0050	mg/kg wet	0.0834		92	50-140			
Linuron	0.103	0.0400	mg/kg wet	0.0884		116	50-140			
Malathion	0.0898	0.0100	mg/kg wet	0.0826		109	50-140			
Methoxychlor	0.0926	0.0050	mg/kg wet	0.0834		111	50-140			
Methyl parathion	0.0853	0.0100	mg/kg wet	0.0823		104	50-140			
Metolachlor	0.0850	0.0100	mg/kg wet	0.0826		103	50-140			
Metribuzin	0.0877	0.0100	mg/kg wet	0.0826		106	50-140			
Parathion	0.0918	0.0100	mg/kg wet	0.0825		111	50-140			
Pentachloronitrobenzene	0.0709	0.0050	mg/kg wet	0.0817		87	50-140			
Permethrin	0.124	0.0050	mg/kg wet	0.0859		144	50-140			SPK
Phorate	0.0771	0.0100	mg/kg wet	0.0826		93	50-140			
Prometon	0.0698	0.0100	mg/kg wet	0.0826		84	50-140			
Prometryne	0.0883	0.0050	mg/kg wet	0.0826		107	50-140			
Simazine	0.0824	0.0100	mg/kg wet	0.0834		99	50-140			
Sulfotep	0.0637	0.0100	mg/kg wet	0.0859		74	50-140			
Tebuthiuron	0.0864	0.0200	mg/kg wet	0.0834		104	50-140			
Temephos (Abate)	1.03	0.0500	mg/kg wet	0.867		119	50-140			
Terbufos	0.0785	0.0100	mg/kg wet	0.0821		96	50-140			
Triallate	0.0739	0.0050	mg/kg wet	0.0834		89	50-140			
Trifluralin	0.0854	0.0100	mg/kg wet	0.0826		103	50-140			
Surrogate: Tributyl Phosphate	*0.0897*		*mg/kg wet*	0.0824		*109*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0761*		*mg/kg wet*	0.0826		*92*	*50-140*			
Duplicate (B2J2996-DUP1)		**Source: 22J2913-06**		Prepared: 2022-10-26, Analyzed: 2022-11-02						
Alachlor	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Aldrin	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Atrazine and metabolites	< 0.0063	0.0050	mg/kg dry		< 0.0050				30	
Azinphos-methyl	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby)
PROJECT 690667

WORK ORDER 22J2913
REPORTED 2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
Duplicate (B2J2996-DUP1), Continued		**Source: 22J2913-06**		Prepared: 2022-10-26, Analyzed: 2022-11-02						
alpha-BHC	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
beta-BHC	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
delta-BHC	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
gamma-BHC (Lindane)	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Bromacil	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Bromoxynil	< 0.0251	0.0200	mg/kg dry		< 0.0200				50	
Butachlor	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Captan	< 0.0251	0.0200	mg/kg dry		< 0.0200				50	
Chlordane (cis + trans)	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Chlorothalonil	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Chlorpyrifos	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Cyanazine	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
DDT, Total	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Deltamethrin	< 0.0627	0.0500	mg/kg dry		< 0.0500				50	
Diazinon	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Dichlorvos	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Diclofop-methyl	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Dieldrin	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Dimethoate	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Disulfoton	< 0.0251	0.0200	mg/kg dry		< 0.0200				50	
Diuron	< 0.0251	0.0200	mg/kg dry		< 0.0200				50	
Endosulfan I + II	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Endosulfan sulfate	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Endrin	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Endrin aldehyde	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Endrin ketone	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Fenchlorphos (Ronnel)	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Heptachlor	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Heptachlor epoxide	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Linuron	< 0.0502	0.0400	mg/kg dry		< 0.0400				50	
Malathion	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Methoxychlor	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Methyl parathion	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Metolachlor	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Metribuzin	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Parathion	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Pentachloronitrobenzene	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Permethrin	< 0.0063	0.0050	mg/kg dry		< 0.0177				50	
Phorate	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Prometon	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Prometryne	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Simazine	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Sulfotep	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Tebuthiuron	< 0.0251	0.0200	mg/kg dry		< 0.0200				50	
Temephos (Abate)	< 0.0627	0.0500	mg/kg dry		< 0.0500				50	
Terbufos	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Triallate	< 0.0063	0.0050	mg/kg dry		< 0.0050				50	
Trifluralin	< 0.0125	0.0100	mg/kg dry		< 0.0100				50	
Surrogate: Tributyl Phosphate	*0.111*		*mg/kg dry*	0.101		*110*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0993*		*mg/kg dry*	0.102		*98*	*50-140*			
Matrix Spike (B2J2996-MS1)		**Source: 22J2913-06**		Prepared: 2022-10-26, Analyzed: 2022-11-01						
Alachlor	0.0953	0.0063	mg/kg dry	0.101	< 0.0050	94	50-140			
Aldrin	0.0838	0.0063	mg/kg dry	0.100	< 0.0050	84	50-140			
Atrazine and metabolites	0.189	0.0063	mg/kg dry	0.202	< 0.0050	94	50-140			
Azinphos-methyl	0.132	0.0125	mg/kg dry	0.0981	< 0.0100	134	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Pesticides, Herbicides, and Fungicides, Batch B2J2996, Continued										
Matrix Spike (B2J2996-MS1), Continued	**Source: 22J2913-06**			Prepared: 2022-10-26, Analyzed: 2022-11-01						
alpha-BHC	0.0895	0.0063	mg/kg dry	0.101	< 0.0050	89	50-140			
beta-BHC	0.0869	0.0063	mg/kg dry	0.101	< 0.0050	86	50-140			
delta-BHC	0.0838	0.0063	mg/kg dry	0.100	< 0.0050	84	50-140			
gamma-BHC (Lindane)	0.0829	0.0063	mg/kg dry	0.100	< 0.0050	83	50-140			
Bromacil	0.118	0.0063	mg/kg dry	0.101	< 0.0050	117	50-140			
Bromoxynil	0.102	0.0251	mg/kg dry	0.0978	< 0.0200	105	50-140			
Butachlor	0.113	0.0063	mg/kg dry	0.101	< 0.0050	112	50-140			
Captan	0.0943	0.0251	mg/kg dry	0.0996	< 0.0200	95	50-140			
Chlordane (cis + trans)	0.179	0.0063	mg/kg dry	0.201	< 0.0050	89	50-140			
Chlorothalonil	0.0932	0.0063	mg/kg dry	0.101	< 0.0050	92	50-140			
Chlorpyrifos	0.0972	0.0125	mg/kg dry	0.100	< 0.0100	97	50-140			
Cyanazine	0.103	0.0125	mg/kg dry	0.101	< 0.0100	102	50-140			
DDT, Total	0.595	0.0125	mg/kg dry	0.597	< 0.0100	100	50-140			
Deltamethrin	1.15	0.0627	mg/kg dry	1.01	< 0.0500	113	50-140			
Diazinon	0.110	0.0125	mg/kg dry	0.100	< 0.0100	110	50-140			
Dichlorvos	0.0918	0.0125	mg/kg dry	0.109	< 0.0100	84	50-140			
Diclofop-methyl	0.0994	0.0063	mg/kg dry	0.102	< 0.0050	97	50-140			
Dieldrin	0.0971	0.0063	mg/kg dry	0.100	< 0.0050	97	50-140			
Dimethoate	0.103	0.0125	mg/kg dry	0.0990	< 0.0100	104	50-140			
Disulfoton	0.0772	0.0251	mg/kg dry	0.102	< 0.0200	76	50-140			
Diuron	0.111	0.0251	mg/kg dry	0.106	< 0.0200	105	50-140			
Endosulfan I + II	0.188	0.0063	mg/kg dry	0.201	< 0.0050	93	50-140			
Endosulfan sulfate	0.0976	0.0063	mg/kg dry	0.101	< 0.0050	97	50-140			
Endrin	0.0998	0.0063	mg/kg dry	0.101	< 0.0050	99	50-140			
Endrin aldehyde	0.0989	0.0063	mg/kg dry	0.100	< 0.0050	99	50-140			
Endrin ketone	0.0983	0.0063	mg/kg dry	0.101	< 0.0050	97	50-140			
Fenchlorphos (Ronnel)	0.0856	0.0125	mg/kg dry	0.103	< 0.0100	83	50-140			
Heptachlor	0.0789	0.0063	mg/kg dry	0.101	< 0.0050	78	50-140			
Heptachlor epoxide	0.0910	0.0063	mg/kg dry	0.101	< 0.0050	90	50-140			
Linuron	0.102	0.0502	mg/kg dry	0.107	< 0.0400	95	50-140			
Malathion	0.105	0.0125	mg/kg dry	0.100	< 0.0100	105	50-140			
Methoxychlor	0.114	0.0063	mg/kg dry	0.101	< 0.0050	112	50-140			
Methyl parathion	0.0984	0.0125	mg/kg dry	0.0997	< 0.0100	92	50-140			
Metolachlor	0.0973	0.0125	mg/kg dry	0.100	< 0.0100	97	50-140			
Metribuzin	0.103	0.0125	mg/kg dry	0.100	< 0.0100	103	50-140			
Parathion	0.114	0.0125	mg/kg dry	0.0999	< 0.0100	115	50-140			
Pentachloronitrobenzene	0.0872	0.0063	mg/kg dry	0.0989	< 0.0050	88	50-140			
Permethrin	0.155	0.0063	mg/kg dry	0.104	< 0.0177	132	50-140			
Phorate	0.0835	0.0125	mg/kg dry	0.100	< 0.0100	83	50-140			
Prometon	0.106	0.0125	mg/kg dry	0.100	< 0.0100	106	50-140			
Prometryne	0.108	0.0063	mg/kg dry	0.100	< 0.0050	108	50-140			
Simazine	0.0976	0.0125	mg/kg dry	0.101	< 0.0100	97	50-140			
Sulfotep	0.0797	0.0125	mg/kg dry	0.104	< 0.0100	77	50-140			
Tebuthiuron	0.124	0.0251	mg/kg dry	0.101	< 0.0200	123	50-140			
Temephos (Abate)	1.25	0.0627	mg/kg dry	1.05	< 0.0500	119	50-140			
Terbufos	0.0961	0.0125	mg/kg dry	0.0994	< 0.0100	97	50-140			
Triallate	0.0912	0.0063	mg/kg dry	0.101	< 0.0050	90	50-140			
Trifluralin	0.108	0.0125	mg/kg dry	0.100	< 0.0100	108	50-140			
Surrogate: Tributyl Phosphate	*0.102*		*mg/kg dry*	0.0998		*103*	*50-140*			
Surrogate: 4-chloro-3-nitrobenzotrifluoride	*0.0941*		*mg/kg dry*	0.100		*94*	*50-140*			
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3334										
Blank (B2J3334-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Acenaphthene	< 0.050	0.050	mg/kg wet							
Acenaphthylene	< 0.050	0.050	mg/kg wet							

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3334, Continued										
Blank (B2J3334-BLK1), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Anthracene	< 0.050	0.050	mg/kg wet							
Benz(a)anthracene	< 0.050	0.050	mg/kg wet							
Benzo(a)pyrene	< 0.050	0.050	mg/kg wet							
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg wet							
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg wet							
2-Chloronaphthalene	< 0.050	0.050	mg/kg wet							
Chrysene	< 0.050	0.050	mg/kg wet							
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg wet							
Fluoranthene	< 0.050	0.050	mg/kg wet							
Fluorene	< 0.050	0.050	mg/kg wet							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg wet							
1-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
2-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
Naphthalene	< 0.050	0.050	mg/kg wet							
Phenanthrene	< 0.050	0.050	mg/kg wet							
Pyrene	< 0.050	0.050	mg/kg wet							
Quinoline	< 0.050	0.050	mg/kg wet							
Surrogate: Acenaphthene-d10	*0.705*		*mg/kg wet*	0.751		*94*	*50-140*			
Surrogate: Chrysene-d12	*0.720*		*mg/kg wet*	0.751		*96*	*50-140*			
Surrogate: Naphthalene-d8	*0.761*		*mg/kg wet*	0.724		*105*	*50-140*			
Surrogate: Perylene-d12	*0.719*		*mg/kg wet*	0.751		*96*	*50-140*			
Surrogate: Phenanthrene-d10	*0.743*		*mg/kg wet*	0.751		*99*	*55-140*			
Blank (B2J3334-BLK2)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Acenaphthene	< 0.050	0.050	mg/kg wet							
Acenaphthylene	< 0.050	0.050	mg/kg wet							
Anthracene	< 0.050	0.050	mg/kg wet							
Benz(a)anthracene	< 0.050	0.050	mg/kg wet							
Benzo(a)pyrene	< 0.050	0.050	mg/kg wet							
Benzo(b)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(b+j)fluoranthene	< 0.050	0.050	mg/kg wet							
Benzo(g,h,i)perylene	< 0.050	0.050	mg/kg wet							
Benzo(k)fluoranthene	< 0.050	0.050	mg/kg wet							
2-Chloronaphthalene	< 0.050	0.050	mg/kg wet							
Chrysene	< 0.050	0.050	mg/kg wet							
Dibenz(a,h)anthracene	< 0.050	0.050	mg/kg wet							
Fluoranthene	< 0.050	0.050	mg/kg wet							
Fluorene	< 0.050	0.050	mg/kg wet							
Indeno(1,2,3-cd)pyrene	< 0.050	0.050	mg/kg wet							
1-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
2-Methylnaphthalene	< 0.050	0.050	mg/kg wet							
Naphthalene	< 0.050	0.050	mg/kg wet							
Phenanthrene	< 0.050	0.050	mg/kg wet							
Pyrene	< 0.050	0.050	mg/kg wet							
Quinoline	< 0.050	0.050	mg/kg wet							
Surrogate: Acenaphthene-d10	*1.07*		*mg/kg wet*	0.829		*129*	*50-140*			
Surrogate: Chrysene-d12	*1.10*		*mg/kg wet*	0.829		*132*	*50-140*			
Surrogate: Naphthalene-d8	*1.09*		*mg/kg wet*	0.800		*136*	*50-140*			
Surrogate: Perylene-d12	*1.09*		*mg/kg wet*	0.829		*131*	*50-140*			
Surrogate: Phenanthrene-d10	*1.13*		*mg/kg wet*	0.829		*136*	*55-140*			
LCS (B2J3334-BS1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Acenaphthene	0.749	0.050	mg/kg wet	0.823		91	50-140			
Acenaphthylene	0.729	0.050	mg/kg wet	0.815		89	50-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Polycyclic Aromatic Hydrocarbons (PAH), Batch B2J3334, Continued										
LCS (B2J3334-BS1), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Anthracene	0.723	0.050	mg/kg wet	0.823		88	50-140			
Benz(a)anthracene	0.726	0.050	mg/kg wet	0.822		88	50-140			
Benzo(a)pyrene	0.719	0.050	mg/kg wet	0.817		88	50-140			
Benzo(b)fluoranthene	0.539	0.050	mg/kg wet	0.816		66	50-140			
Benzo(b+j)fluoranthene	1.31	0.050	mg/kg wet	1.63		80	50-140			
Benzo(g,h,i)perylene	0.740	0.050	mg/kg wet	0.815		91	50-140			
Benzo(k)fluoranthene	0.643	0.050	mg/kg wet	0.821		78	50-140			
2-Chloronaphthalene	0.720	0.050	mg/kg wet	0.815		88	50-140			
Chrysene	0.737	0.050	mg/kg wet	0.813		91	50-140			
Dibenz(a,h)anthracene	0.622	0.050	mg/kg wet	0.826		75	50-140			
Fluoranthene	0.767	0.050	mg/kg wet	0.828		93	50-140			
Fluorene	0.726	0.050	mg/kg wet	0.844		86	50-140			
Indeno(1,2,3-cd)pyrene	0.741	0.050	mg/kg wet	0.817		91	50-140			
1-Methylnaphthalene	0.749	0.050	mg/kg wet	0.818		92	50-140			
2-Methylnaphthalene	0.760	0.050	mg/kg wet	0.820		93	50-140			
Naphthalene	0.737	0.050	mg/kg wet	0.821		90	50-140			
Phenanthrene	0.717	0.050	mg/kg wet	0.816		88	50-140			
Pyrene	0.749	0.050	mg/kg wet	0.828		90	50-140			
Quinoline	0.908	0.050	mg/kg wet	0.828		110	50-140			
Surrogate: Acenaphthene-d10	*0.787*		*mg/kg wet*	0.828		*95*	*50-140*			
Surrogate: Chrysene-d12	*0.833*		*mg/kg wet*	0.828		*101*	*50-140*			
Surrogate: Naphthalene-d8	*0.850*		*mg/kg wet*	0.799		*106*	*50-140*			
Surrogate: Perylene-d12	*0.790*		*mg/kg wet*	0.828		*95*	*50-140*			
Surrogate: Phenanthrene-d10	*0.822*		*mg/kg wet*	0.828		*99*	*55-140*			
LCS (B2J3334-BS3)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Acenaphthene	0.723	0.050	mg/kg wet	0.780		93	50-140			
Acenaphthylene	0.703	0.050	mg/kg wet	0.772		91	50-140			
Anthracene	0.697	0.050	mg/kg wet	0.780		89	50-140			
Benz(a)anthracene	0.708	0.050	mg/kg wet	0.779		91	50-140			
Benzo(a)pyrene	0.692	0.050	mg/kg wet	0.775		89	50-140			
Benzo(b)fluoranthene	0.520	0.050	mg/kg wet	0.774		67	50-140			
Benzo(b+j)fluoranthene	1.30	0.050	mg/kg wet	1.55		84	50-140			
Benzo(g,h,i)perylene	0.715	0.050	mg/kg wet	0.773		92	50-140			
Benzo(k)fluoranthene	0.641	0.050	mg/kg wet	0.779		82	50-140			
2-Chloronaphthalene	0.695	0.050	mg/kg wet	0.772		90	50-140			
Chrysene	0.726	0.050	mg/kg wet	0.771		94	50-140			
Dibenz(a,h)anthracene	0.599	0.050	mg/kg wet	0.783		77	50-140			
Fluoranthene	0.738	0.050	mg/kg wet	0.785		94	50-140			
Fluorene	0.705	0.050	mg/kg wet	0.801		88	50-140			
Indeno(1,2,3-cd)pyrene	0.712	0.050	mg/kg wet	0.775		92	50-140			
1-Methylnaphthalene	0.723	0.050	mg/kg wet	0.776		93	50-140			
2-Methylnaphthalene	0.730	0.050	mg/kg wet	0.777		94	50-140			
Naphthalene	0.713	0.050	mg/kg wet	0.779		92	50-140			
Phenanthrene	0.699	0.050	mg/kg wet	0.774		90	50-140			
Pyrene	0.732	0.050	mg/kg wet	0.785		93	50-140			
Quinoline	0.875	0.050	mg/kg wet	0.785		112	50-140			
Surrogate: Acenaphthene-d10	*0.759*		*mg/kg wet*	0.785		*97*	*50-140*			
Surrogate: Chrysene-d12	*0.795*		*mg/kg wet*	0.785		*101*	*50-140*			
Surrogate: Naphthalene-d8	*0.816*		*mg/kg wet*	0.757		*108*	*50-140*			
Surrogate: Perylene-d12	*0.764*		*mg/kg wet*	0.785		*97*	*50-140*			
Surrogate: Phenanthrene-d10	*0.802*		*mg/kg wet*	0.785		*102*	*55-140*			
Strong Acid Leachable Metals, Batch B2J3346										

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J3346, Continued										
Blank (B2J3346-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	2.8	2.0	mg/kg dry							BLK
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	0.67	0.20	mg/kg dry							BLK
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2J3346-BS1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Aluminum	989	40	mg/kg dry	1000		99	80-120			
Antimony	9.21	0.10	mg/kg dry	10.0		92	80-120			
Arsenic	9.58	0.30	mg/kg dry	10.0		96	80-120			
Barium	9.4	1.0	mg/kg dry	10.0		94	80-120			
Beryllium	9.84	0.10	mg/kg dry	10.0		98	80-120			
Boron	10.2	2.0	mg/kg dry	10.0		102	80-120			
Cadmium	9.41	0.040	mg/kg dry	10.0		94	80-120			
Chromium	9.9	1.0	mg/kg dry	10.0		99	80-120			
Cobalt	9.83	0.10	mg/kg dry	10.0		98	80-120			
Copper	9.84	0.40	mg/kg dry	10.0		98	80-120			
Iron	991	20	mg/kg dry	1000		99	80-120			
Lead	9.74	0.20	mg/kg dry	10.0		97	80-120			
Lithium	9.76	0.10	mg/kg dry	10.0		98	80-120			
Manganese	9.92	0.40	mg/kg dry	10.0		99	80-120			
Mercury	1.00	0.040	mg/kg dry	1.00		100	80-120			
Molybdenum	9.61	0.10	mg/kg dry	10.0		96	80-120			
Nickel	10.0	0.60	mg/kg dry	10.0		100	80-120			
Selenium	9.73	0.20	mg/kg dry	10.0		97	80-120			
Silver	9.60	0.10	mg/kg dry	10.0		96	80-120			
Strontium	9.75	0.20	mg/kg dry	10.0		97	80-120			
Thallium	9.70	0.10	mg/kg dry	10.0		97	80-120			
Tin	9.28	0.20	mg/kg dry	10.0		93	80-120			
Tungsten	9.78	0.20	mg/kg dry	10.0		98	80-120			
Uranium	9.92	0.050	mg/kg dry	10.0		99	80-120			
Vanadium	9.8	1.0	mg/kg dry	10.0		98	80-120			
Zinc	9.7	2.0	mg/kg dry	10.0		97	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J3346, Continued										
Reference (B2J3346-SRM1)				Prepared: 2022-10-28, Analyzed: 2022-10-28						
Aluminum	11400	40	mg/kg dry	11500		99	70-130			
Antimony	0.61	0.10	mg/kg dry	0.724		85	70-130			
Arsenic	79.9	0.30	mg/kg dry	82.1		97	70-130			
Barium	39.6	1.0	mg/kg dry	40.0		99	70-130			
Beryllium	0.36	0.10	mg/kg dry	0.369		98	70-130			
Chromium	63.0	1.0	mg/kg dry	63.1		100	70-130			
Cobalt	10.0	0.10	mg/kg dry	10.4		96	70-130			
Copper	18.5	0.40	mg/kg dry	19.8		93	70-130			
Iron	19000	20	mg/kg dry	20200		94	70-130			
Lead	17.6	0.20	mg/kg dry	17.3		102	70-130			
Manganese	301	0.40	mg/kg dry	315		96	70-130			
Mercury	0.107	0.040	mg/kg dry	0.110		98	70-130			
Molybdenum	0.59	0.10	mg/kg dry	0.619		95	70-130			
Nickel	30.4	0.60	mg/kg dry	31.7		96	70-130			
Silver	1.40	0.10	mg/kg dry	1.75		80	70-130			
Strontium	22.2	0.20	mg/kg dry	20.3		109	70-130			
Uranium	1.17	0.050	mg/kg dry	1.18		100	70-130			
Vanadium	34.9	1.0	mg/kg dry	33.5		104	70-130			
Zinc	37.1	2.0	mg/kg dry	40.2		92	70-130			
Strong Acid Leachable Metals, Batch B2J3418										
Blank (B2J3418-BLK1)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
Aluminum	< 40	40	mg/kg dry							
Antimony	< 0.10	0.10	mg/kg dry							
Arsenic	< 0.30	0.30	mg/kg dry							
Barium	< 1.0	1.0	mg/kg dry							
Beryllium	< 0.10	0.10	mg/kg dry							
Boron	< 2.0	2.0	mg/kg dry							
Cadmium	< 0.040	0.040	mg/kg dry							
Chromium	< 1.0	1.0	mg/kg dry							
Cobalt	< 0.10	0.10	mg/kg dry							
Copper	< 0.40	0.40	mg/kg dry							
Iron	< 20	20	mg/kg dry							
Lead	< 0.20	0.20	mg/kg dry							
Lithium	< 0.10	0.10	mg/kg dry							
Manganese	< 0.40	0.40	mg/kg dry							
Mercury	< 0.040	0.040	mg/kg dry							
Molybdenum	< 0.10	0.10	mg/kg dry							
Nickel	< 0.60	0.60	mg/kg dry							
Selenium	< 0.20	0.20	mg/kg dry							
Silver	< 0.10	0.10	mg/kg dry							
Strontium	< 0.20	0.20	mg/kg dry							
Thallium	< 0.10	0.10	mg/kg dry							
Tin	< 0.20	0.20	mg/kg dry							
Tungsten	< 0.20	0.20	mg/kg dry							
Uranium	< 0.050	0.050	mg/kg dry							
Vanadium	< 1.0	1.0	mg/kg dry							
Zinc	< 2.0	2.0	mg/kg dry							
LCS (B2J3418-BS1)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
Aluminum	991	40	mg/kg dry	1000		99	80-120			
Antimony	9.58	0.10	mg/kg dry	10.0		96	80-120			
Arsenic	10.1	0.30	mg/kg dry	10.0		101	80-120			
Barium	10.3	1.0	mg/kg dry	10.0		103	80-120			
Beryllium	9.86	0.10	mg/kg dry	10.0		99	80-120			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J3418, Continued										
LCS (B2J3418-BS1), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-29						
Boron	10.4	2.0	mg/kg dry	10.0		104	80-120			
Cadmium	9.95	0.040	mg/kg dry	10.0		99	80-120			
Chromium	10.2	1.0	mg/kg dry	10.0		102	80-120			
Cobalt	10.2	0.10	mg/kg dry	10.0		102	80-120			
Copper	10.0	0.40	mg/kg dry	10.0		100	80-120			
Iron	1010	20	mg/kg dry	1000		101	80-120			
Lead	9.97	0.20	mg/kg dry	10.0		100	80-120			
Lithium	9.68	0.10	mg/kg dry	10.0		97	80-120			
Manganese	10.0	0.40	mg/kg dry	10.0		100	80-120			
Mercury	1.04	0.040	mg/kg dry	1.00		104	80-120			
Molybdenum	9.84	0.10	mg/kg dry	10.0		98	80-120			
Nickel	10.2	0.60	mg/kg dry	10.0		102	80-120			
Selenium	10.6	0.20	mg/kg dry	10.0		106	80-120			
Silver	9.95	0.10	mg/kg dry	10.0		99	80-120			
Strontium	10.1	0.20	mg/kg dry	10.0		101	80-120			
Thallium	9.92	0.10	mg/kg dry	10.0		99	80-120			
Tin	9.68	0.20	mg/kg dry	10.0		97	80-120			
Tungsten	9.75	0.20	mg/kg dry	10.0		97	80-120			
Uranium	10.1	0.050	mg/kg dry	10.0		101	80-120			
Vanadium	10.1	1.0	mg/kg dry	10.0		101	80-120			
Zinc	9.8	2.0	mg/kg dry	10.0		98	80-120			
Duplicate (B2J3418-DUP1)		**Source: 22J2913-02**		Prepared: 2022-10-28, Analyzed: 2022-10-29						
Aluminum	12600	40	mg/kg dry		12900			2	40	
Antimony	0.17	0.10	mg/kg dry		0.18				30	
Arsenic	2.35	0.30	mg/kg dry		2.31			1	30	
Barium	70.8	1.0	mg/kg dry		70.3			< 1	40	
Beryllium	0.26	0.10	mg/kg dry		0.27				30	
Boron	3.9	2.0	mg/kg dry		3.6				30	
Cadmium	0.063	0.040	mg/kg dry		0.069				30	
Chromium	20.8	1.0	mg/kg dry		19.9			4	30	
Cobalt	8.48	0.10	mg/kg dry		8.75			3	30	
Copper	23.2	0.40	mg/kg dry		26.0			11	30	
Iron	23400	20	mg/kg dry		23600			1	30	
Lead	2.61	0.20	mg/kg dry		2.69			3	40	
Lithium	8.07	0.10	mg/kg dry		8.27			3	30	
Manganese	398	0.40	mg/kg dry		412			3	30	
Mercury	< 0.040	0.040	mg/kg dry		< 0.040				40	
Molybdenum	0.45	0.10	mg/kg dry		0.47				40	
Nickel	13.4	0.60	mg/kg dry		14.4			7	30	
Selenium	< 0.20	0.20	mg/kg dry		< 0.20				30	
Silver	< 0.10	0.10	mg/kg dry		< 0.10				40	
Strontium	65.6	0.20	mg/kg dry		64.9			1	40	
Thallium	< 0.10	0.10	mg/kg dry		< 0.10				30	
Tin	0.33	0.20	mg/kg dry		0.31				40	
Tungsten	< 0.20	0.20	mg/kg dry		< 0.20				40	
Uranium	0.427	0.050	mg/kg dry		0.409			4	30	
Vanadium	69.3	1.0	mg/kg dry		69.5			< 1	30	
Zinc	38.0	2.0	mg/kg dry		38.2			< 1	30	
Reference (B2J3418-SRM1)				Prepared: 2022-10-28, Analyzed: 2022-10-29						
Aluminum	11200	40	mg/kg dry	11500		97	70-130			
Antimony	0.63	0.10	mg/kg dry	0.724		88	70-130			
Arsenic	83.6	0.30	mg/kg dry	82.1		102	70-130			
Barium	39.0	1.0	mg/kg dry	40.0		98	70-130			
Beryllium	0.38	0.10	mg/kg dry	0.369		104	70-130			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO	SNC-Lavalin Inc. (Burnaby)	**WORK ORDER**	22J2913
PROJECT	690667	**REPORTED**	2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Strong Acid Leachable Metals, Batch B2J3418, Continued										
Reference (B2J3418-SRM1), Continued				Prepared: 2022-10-28, Analyzed: 2022-10-29						
Chromium	63.1	1.0	mg/kg dry	63.1		100	70-130			
Cobalt	10.4	0.10	mg/kg dry	10.4		100	70-130			
Copper	19.1	0.40	mg/kg dry	19.8		97	70-130			
Iron	19700	20	mg/kg dry	20200		98	70-130			
Lead	16.5	0.20	mg/kg dry	17.3		95	70-130			
Manganese	307	0.40	mg/kg dry	315		97	70-130			
Mercury	0.118	0.040	mg/kg dry	0.110		108	70-130			
Molybdenum	0.60	0.10	mg/kg dry	0.619		97	70-130			
Nickel	30.9	0.60	mg/kg dry	31.7		97	70-130			
Silver	1.48	0.10	mg/kg dry	1.75		85	70-130			
Strontium	20.8	0.20	mg/kg dry	20.3		102	70-130			
Uranium	1.16	0.050	mg/kg dry	1.18		98	70-130			
Vanadium	34.4	1.0	mg/kg dry	33.5		103	70-130			
Zinc	36.5	2.0	mg/kg dry	40.2		91	70-130			
Volatile Organic Compounds (VOC), Batch B2J2951										
Blank (B2J2951-BLK1)				Prepared: 2022-10-25, Analyzed: 2022-10-28						
Benzene	< 0.030	0.030	mg/kg wet							
Bromodichloromethane	< 0.100	0.100	mg/kg wet							
Bromoform	< 0.100	0.100	mg/kg wet							
Carbon tetrachloride	< 0.050	0.050	mg/kg wet							
Chlorobenzene	< 0.050	0.050	mg/kg wet							
Chloroform	< 0.050	0.050	mg/kg wet							
Dibromochloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dibromoethane	< 0.100	0.100	mg/kg wet							
Dibromomethane	< 0.100	0.100	mg/kg wet							
1,2-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,3-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,4-Dichlorobenzene	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,2-Dichloroethane	< 0.050	0.050	mg/kg wet							
1,1-Dichloroethylene	< 0.050	0.050	mg/kg wet							
cis-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
trans-1,2-Dichloroethylene	< 0.050	0.050	mg/kg wet							
Dichloromethane	< 0.100	0.100	mg/kg wet							
1,2-Dichloropropane	< 0.050	0.050	mg/kg wet							
1,3-Dichloropropene (cis + trans)	< 0.050	0.050	mg/kg wet							
Ethylbenzene	< 0.050	0.050	mg/kg wet							
Methyl tert-butyl ether	< 0.040	0.040	mg/kg wet							
Styrene	< 0.050	0.050	mg/kg wet							
1,1,2,2-Tetrachloroethane	< 0.050	0.050	mg/kg wet							
Tetrachloroethylene	< 0.050	0.050	mg/kg wet							
Toluene	< 0.200	0.200	mg/kg wet							
1,1,1-Trichloroethane	< 0.050	0.050	mg/kg wet							
1,1,2-Trichloroethane	< 0.050	0.050	mg/kg wet							
Trichloroethylene	< 0.040	0.040	mg/kg wet							
Trichlorofluoromethane	< 0.100	0.100	mg/kg wet							
Vinyl chloride	< 0.100	0.100	mg/kg wet							
Xylenes (total)	< 0.100	0.100	mg/kg wet							
Surrogate: Toluene-d8	*3.79*		*mg/kg wet*	4.00		*95*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*3.06*		*mg/kg wet*	3.98		*77*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.21*		*mg/kg wet*	4.00		*80*	*60-140*			
LCS (B2J2951-BS1)				Prepared: 2022-10-25, Analyzed: 2022-10-28						
Benzene	2.08	0.030	mg/kg wet	2.00		104	60-140			

APPENDIX 2: QUALITY CONTROL RESULTS

REPORTED TO SNC-Lavalin Inc. (Burnaby) **WORK ORDER** 22J2913
PROJECT 690667 **REPORTED** 2023-02-14 12:17

Analyte	Result	RL	Units	Spike Level	Source Result	% REC	REC Limit	% RPD	RPD Limit	Qualifier
Volatile Organic Compounds (VOC), Batch B2J2951, Continued										
LCS (B2J2951-BS1), Continued				Prepared: 2022-10-25, Analyzed: 2022-10-28						
Bromodichloromethane	1.22	0.100	mg/kg wet	2.01		61	60-140			
Bromoform	0.832	0.100	mg/kg wet	2.00		42	60-140			SPK
Carbon tetrachloride	1.09	0.050	mg/kg wet	2.01		54	60-140			SPK
Chlorobenzene	1.88	0.050	mg/kg wet	2.01		94	60-140			
Chloroform	1.14	0.050	mg/kg wet	2.01		57	60-140			SPK
Dibromochloromethane	1.00	0.100	mg/kg wet	2.00		50	60-140			SPK
1,2-Dibromoethane	1.58	0.100	mg/kg wet	2.00		79	60-140			
Dibromomethane	1.44	0.100	mg/kg wet	2.00		72	60-140			
1,2-Dichlorobenzene	1.69	0.050	mg/kg wet	2.01		84	60-140			
1,3-Dichlorobenzene	1.59	0.050	mg/kg wet	2.01		79	60-140			
1,4-Dichlorobenzene	1.42	0.050	mg/kg wet	2.01		70	60-140			
1,1-Dichloroethane	1.32	0.050	mg/kg wet	2.00		66	60-140			
1,2-Dichloroethane	1.75	0.050	mg/kg wet	2.01		87	60-140			
1,1-Dichloroethylene	1.39	0.050	mg/kg wet	2.00		70	60-140			
cis-1,2-Dichloroethylene	1.21	0.050	mg/kg wet	2.00		60	60-140			
trans-1,2-Dichloroethylene	1.29	0.050	mg/kg wet	2.01		64	60-140			
Dichloromethane	1.37	0.100	mg/kg wet	2.01		68	60-140			
1,2-Dichloropropane	1.92	0.050	mg/kg wet	2.01		96	60-140			
1,3-Dichloropropene (cis + trans)	2.74	0.050	mg/kg wet	4.00		69	60-140			
Ethylbenzene	2.00	0.050	mg/kg wet	2.00		100	60-140			
Methyl tert-butyl ether	1.15	0.040	mg/kg wet	2.00		58	60-140			SPK
Styrene	1.82	0.050	mg/kg wet	2.00		91	60-140			
1,1,2,2-Tetrachloroethane	1.80	0.050	mg/kg wet	2.01		90	60-140			
Tetrachloroethylene	1.67	0.050	mg/kg wet	2.00		83	60-140			
Toluene	1.91	0.200	mg/kg wet	2.00		96	60-140			
1,1,1-Trichloroethane	1.02	0.050	mg/kg wet	2.01		51	60-140			SPK
1,1,2-Trichloroethane	1.71	0.050	mg/kg wet	2.01		85	60-140			
Trichloroethylene	1.59	0.040	mg/kg wet	2.01		79	60-140			
Trichlorofluoromethane	1.34	0.100	mg/kg wet	2.00		67	50-150			
Vinyl chloride	3.03	0.100	mg/kg wet	2.00		152	50-150			SPK
Xylenes (total)	6.04	0.100	mg/kg wet	6.00		101	60-140			
Surrogate: Toluene-d8	*3.81*		*mg/kg wet*	4.00		*95*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*3.12*		*mg/kg wet*	3.98		*78*	*60-140*			
Surrogate: 1,4-Dichlorobenzene-d4	*3.23*		*mg/kg wet*	4.00		*81*	*60-140*			

QC Qualifiers:

BLK Analyte concentration in the Method Blank is above the Reporting Limit (RL).
SPK The recovery of this analyte was outside of established control limits.

Sample ID: SED22-CC1-3
Lab ID: 22J2913-07 Batch: B2J3334

