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*Supplemental Environmental Site Assessment, Former Frenchvale Mine Site,
Frenchvale, Nova Scotia, Parcel Identification Designation Number 15845167 (Final)*

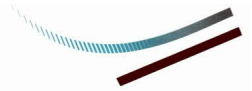
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Introduction

The following document has been prepared to summarize the findings of the supplemental environmental site assessment (ESA) completed during 2025 at the Former Frenchvale Mine site in Frenchvale, Cape Breton County, Nova Scotia (herein referred to as the “subject property” or “site”). The purpose of the supplemental ESA activities, as detailed herein, was to collect additional soil, sediment, and surface water data to further characterize the site, inform a Human Health and Ecological Risk Assessment (HHERA) problem formulation, and to further inform the development of the remedial approach for the site.

The subject property is owned by Department of Natural Resources (DNR) and can be accessed by an unpaved access road (Quarry Road) that extends west from Gouthro Road (See Figure 1, Attachment A, for the site location). A former mill processing area and weigh scale were historically present on-site, with a former limestone quarry located off-site to the northwest and west. Historically, the former off-site quarry supplied the Sydney Steel Plant with carbonate materials, including limestone and dolomite, and operated from 1964 to 1970 and then reopened in 1971 for an unknown period. Crushing, screening, and milling operations associated with the former quarry took place at the site. Overburden and plant screening materials were reportedly dumped and spread over areas of the site. Structures and infrastructure (i.e., weigh scale) were constructed to support site operations. While the majority of the former site infrastructure has been removed, some infrastructure remnants are present on-site (e.g., former weigh scale foundation).

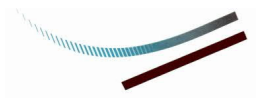
Findings of the Phase II ESA, completed by Dillon during 2024-2025, indicated metals exceedances of the Nova Scotia Contaminated Sites Regulations (NS CSRs) Tier I Environmental Quality Standards (EQS) in soil, sediment and surface water. Metals concentrations in soil also exceeded the Environment Canada Background Soil Database concentrations (Dillon, 2011) at several locations across the site. Further soil sampling was recommended to obtain delineation of the identified metals impacts. Surface water exceedances were not delineated. Metals exceedances in sediment are located on the northeast portion of the site and are not delineated to the north or south. Collection of surface water sediment from the shoreline of



Gouthro Lake was recommended. While there is no Tier I EQS for sulphur, the concentrations in soil sample BH10 (1.0 m) and sediment sample SED8 (i.e., 4,600 mg/kg and 5,500 mg/kg, respectively) exceeded the Sulphide Bearing Material Disposal Regulation guideline of 4,000 mg/kg (which was referenced for comparison purposes in absence of a Tier I EQS). Therefore, the Phase II ESA recommended sampling for acid rock drainage (ARD) was recommended at BH10 and SED8.

The 2025 supplemental ESA activities included:

- Collection of sixteen (16) surface soil samples (including two (2) field duplicate samples), at depths of 0-0.15 meters below ground surface (mbgs) for horizontal delineation of metals impacts. Soil samples were collected manually (e.g., via shovel or auger). Analysis of soil pH was completed on five (5) select soil samples;
- Collection of five (5) soil samples (including one (1) field duplicate sample) to a depth up to 1.0 mbgs for vertical delineation of metals impacts. Soil samples were collected manually (e.g., via shovel or auger);
- Based on the findings of the Phase I ESA, it was considered unlikely that true local background samples could be collected within the site boundary limits. Therefore, naturally occurring background metals concentrations in soil on-site were not characterized during the Phase II ESA. However, during the Supplemental ESA, the advancement of six (6) additional shallow test holes, with the collection of thirteen (13) additional soil samples (including one (1) field duplicate sample) for metals analysis to assess potential background metals concentrations near the southwest site boundary was completed. Soil samples were collected manually (e.g., via shovel or auger) at a depth of 0-0.15 mbgs and at 0.5 m (or to bedrock/refusal, if bedrock/refusal occurred before 0.5 m);
- Collection of two (2) soil samples for benzene, toluene, ethylbenzene, xylenes (collectively known as BTEX) and total petroleum hydrocarbon (TPH) analysis in areas of abandoned vehicles;
- Collection of six (6) surface water samples (including one (1) field duplicate sample) for general chemistry and metals analysis. The surface water samples were collected from on-site water courses and from Gouthro Lake. It is noted that in some instances (i.e., SED17 and SED18, which were collected from on-site watercourses) correlating surface water samples could not be collected as these locations were dry;
- Collection of eight (8) sediment samples (including one (1) field duplicate sample) for metals and total organic carbon (TOC) analysis from on-site watercourses and from Gouthro Lake;
- Collection of two (2) soil samples for ARD analysis at soil sample location BH10 (at 1 mbgs) and at sediment sample SED8 (grab sample); and
- Collection of two (2) soil and two (2) sediment samples for grainsize (i.e., coarse/fine determination).



Throughout the field program Dillon recorded GPS coordinates from the sampling locations, which are presented in Attachment B.

Methodology

Surface Soil Sampling Program

Between June 3 and 4, 2025, shallow surface soil sampling was completed at twenty-eight (28) on-site locations (i.e., denoted as BH20 through BH47¹). Shallow surface soil samples were collected using hand tools (i.e., spade, hand-auger), with samples collected at select targeted intervals between 0 and 1.5 mbgs. Surface soil samples were collected directly from these tools and placed immediately in laboratory supplied containers and then placed in coolers containing ice pending delivery to ALS Laboratories (ALS). Hand tools used for surface soil sample collection were decontaminated between each location using a phosphate free detergent and rinsed with distilled water. Select surface soil samples were submitted to ALS for metals, pH and/or BTEXTPH analysis.

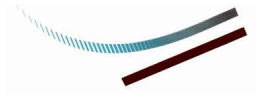
Surface soil locations are presented on Figure 2, Attachment A. A log describing observations made during the sampling program is presented in Attachment B.

Surface Water Sampling

On June 3, 2025, surface water sampling was completed at six (6) locations (i.e., SW11 through SW16) in on-site water courses and Gouthro Lake (near shoreline). Surface water samples were collected as grab samples placed directly into laboratory-provided sample bottles containing the appropriate preservatives. Care was taken to collect surface water into the sample bottles at an angle slightly above horizontal such that preservatives were not lost. Surface water samples were collected prior to the collection of sediment samples to minimize disturbance of the water column and avoid potential sediment entering the surface water sample bottle. To alleviate the potential for cross contamination, new nitrile gloves were used to collect each surface water sample. Sample bottles were placed into coolers containing ice for transport to ALS in Dartmouth, Nova Scotia, with select samples submitted for total metals and general chemistry analysis.

The surface water sample locations are presented on Figure 2, Attachment A.

¹ Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.



Sediment Sampling

Between June 3 and 4, 2025, sediment sampling was completed at eight (8) locations (i.e., SED11 through SED18) in on-site water courses and near shoreline locations in Gouthro Lake. The sediment samples were collected as grab samples (following surface water sampling). The samples were transferred directly into laboratory supplied containers and immediately placed in coolers containing ice. To minimize the potential for cross contamination, new nitrile gloves were used to collect each sample. Samples were submitted to ALS in Dartmouth, Nova Scotia for metals, TOC, and/or grain size analysis.

The sediment sample locations are presented on Figure 2, Attachment A.

Quality Assurance/Quality Control

Quality Assurance/Quality Control (QA/QC) protocols were established and followed throughout the field program. This included the collection of duplicate soil, sediment, and surface water samples. Non-dedicated equipment, such as the hand auger, was decontaminated between sampling locations using a phosphate free detergent and distilled water. Methods used during the field work followed Dillon's Standard Environmental Field Procedures which are based on industry standards and described in the respective sections above.

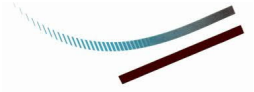
Blind field duplicate samples collected during the assessment included: four (4) soil samples, one (1) surface water sample, and one (1) sediment sample.

Sample bottles were labelled with sample/location ID, project name and number, company name (Dillon), and time and date of collection. Once collected, samples were immediately placed in coolers containing ice to maintain a temperature of less than 10°C. To minimize the potential for cross contamination, new nitrile gloves were used to collect each sample between each sampling location.

To evaluate the precision associated with sampling and analytical methods, the samples and their field duplicates were used to calculate the relative percent difference (RPD). The RPD is defined as the absolute value of the variation between a sample's analytical concentration and its duplicate, when compared to the average concentration of the original and the duplicate in detected samples.

The RPD was calculated using the following equation:

$$= \frac{|V_1 - V_2|}{\frac{(V_1 + V_2)}{2}} \times 100$$



RPD is used to assess the validity of the field and laboratory analytical procedures for parameters analyzed that are greater than five (5) times the reportable detection limit (RDL). Dillon set a screening-level RPD acceptance criterion of less than 60% for soil/sediment and 40% for surface water.

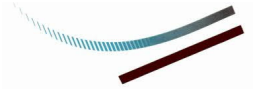
Regulatory Framework

Nova Scotia Contaminated Sites Regulations and Associated Ministerial Protocols

The 2025 supplemental ESA for the site was conducted in accordance with the Nova Scotia Contaminated Sites Regulations (NS CSRs) and associated Ministerial Protocols. The assessment work was conducted in accordance with the Ministerial Protocol PRO-200 (Environmental Site Assessment for Limited Remediation), specifically for an L3 ESA, which applies to the assessment of contamination from a single source or multiple sources with single or multiple contaminants of concern. Specifically, the criteria used to assess impacts at the site were the NS Tier I Environmental Quality Standards (EQS) for soil (October 2022), surface water (September 2021), and sediment (October 2022), and for a property having commercial land-use, potable groundwater usage, and both fine and coarse-grained soil conditions (based on soil sample grain-size results from 2025).

Metals concentrations were also compared to the Nova Scotia Maximum Concentration Background Levels for the Highlands Soil Zone, as presented in the Environment Canada's (EC) Background Soil Database. As part of this Supplemental ESA, thirteen (13) additional soil samples (including one (1) field duplicate sample) were collected for metals analysis to assess potential background metals concentrations near the southwest site boundary. Soil samples were collected at a depth of 0-0.15 mbgs and at 0.5 m (or to bedrock/refusal, if bedrock/refusal occurred before 0.5 m). Based on a review of the available on-site soil data and this potential background soil data, no clear trend was observed between the surficial and deeper soil samples collected for background assessment. It is expected that deposition of contaminated soils across the site may have occurred, including potential windblown dusts impacting areas within close proximity to historical mining activities. As such, these soil samples were conservatively included in the on-site soil data set, rather than being carried forward as background samples. Excluding these samples as background did not affect the outcome of the final COPC selection.

There are two main watercourses running through the site. Review of surface water samples collected for potential background assessment within the site boundaries indicates that they are likely not representative of background conditions (i.e., more



suitable background samples would be required off-site and upstream from both watercourses).

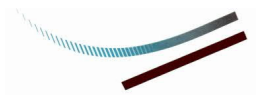
Results

Metals in Soil

Thirty-six (36) select soil samples (i.e., BH20-BH47, including four (4) duplicate samples: 25DUPB (collected at BH23 (0.5 m)), 25DUP C (collected at BH29 (0-0.15 m)), 25DUP D (collected at BH32 (0-0.15 m)), and 25DUP G (collected at BH41 (1.5 m)) were collected from twenty-eight (28) test holes as part of the June 2025 surficial soil sampling and program were analyzed for metals.

The June 2025 results indicated that metals exceeded the applicable NS Tier I EQS for at least one (1) parameter in the thirty-six (36) analyzed samples. Analytical metals exceedances from the June 2025 assessment were generally consistent with findings during the 2024-2025 Phase II ESA. Notable, widespread exceedances, when looking at the overall June 2025 data set, are summarized below:

- Aluminum concentrations, with exceedances ranging from 18,100 mg/kg to 36,100 mg/kg (the highest concentration at BH44 (0-0.15 m) located in an area of vehicle debris), exceeded the applicable NS Tier I EQS (15,400 mg/kg) in twenty-six (26) of the analyzed samples. When compared to background (i.e., 28,000 mg/kg), five (5) exceedances remain;
- Beryllium concentrations, with exceedances ranging from 1.25 mg/kg to 2.02 mg/kg (the highest concentration at BH42 (0.45 m)), exceeded the applicable Tier I EQS and background value of 1 mg/kg in seven (7) of the analyzed samples;
- Iron concentrations, with exceedances ranging from 13,500 mg/kg to 330,000 mg/kg (the highest concentration at BH45 (0-0.15 m), which was located in an area of vehicle debris) exceeded the applicable NS Tier I EQS of 11,000 mg/kg in thirty-six (36) samples (including one (1) duplicate sample). When compared to background (i.e., 52,000 mg/kg), one (1) iron exceedance remains (i.e., BH45 (0.45 m));
- Twenty-nine (29) analyzed soil samples (including three (3) duplicate samples) exceeded the Tier I EQS for manganese of 360 mg/kg; however, when compared to background (i.e., 4,340 mg/kg), no exceedances were identified;
- Selenium concentrations, with exceedances ranging from 1.09 mg/kg to 3.40 mg/kg (the highest concentration at BH34 (0-0.15 m)), exceeded the applicable Tier I EQS of 1 mg/kg and background of 0.8 mg/kg in six (6) (including one duplicate) of the analyzed samples;
- Vanadium concentrations in twenty-seven (27) samples, with exceedances ranging from 39.3 mg/kg to 64.6 mg/kg (the highest concentration at BH25 (0-



- 0.15 m)), exceeded the applicable NS Tier I EQS of 39 mg/kg. When compared to background (i.e., 86 mg/kg), no exceedances remain; and
- Zinc concentrations in four (4) samples, with exceedances ranging from 223 mg/kg to 2,140 mg/kg (the highest concentration at BH45 (0-0.15 m)), exceeded the applicable NS Tier I EQS of 200 mg/kg. When compared to background (i.e., 270 mg/kg), two (2) exceedances remain (i.e., BH28 (0-0.15 m) and, BH45 (0-0.15 m)).

Although not widespread, exceedances of the Tier I EQS and background were also reported for arsenic (i.e., BH45 (0-0.15 m)), cadmium (i.e., BH33 (0-0.15 m), BH34 (0-0.15 m), and BH45 (0-0.15 m)), cobalt (BH45 (0-0.15 m)), copper (i.e., BH28 (0-0.15 m)), lead (i.e., BH44 (0-0.15 m) and BH45 (0-0.45 m) both located in areas of vehicle debris), molybdenum (BH45 (0-0.15 m)), nickel (BH45 (0-0.15 m)), and uranium (i.e., BH33 (0-0.15 m), BH41 (1.5 m) and the field duplicate of BH41). While there is no Tier I EQS for sulphur, two (2) concentrations (i.e., 5,800 mg/kg at BH34 (0-0.15 m) and 4,100 mg/kg in duplicate sample 25DUP G, noting that the parent sample, BH41 (1.5 m), had a concentration at the guideline value of 4,000 mg/kg) exceeded the Sulphide Bearing Material Disposal Regulation guideline of 4,000 mg/kg (which was referenced for comparison purposes in absence of a Tier I EQS).

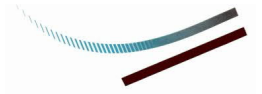
As no mercury exceedances were found in soil during the Phase II ESA, mercury analysis was not included as part of the Supplemental ESA.

Metals exceedances, including the estimated extent, in soil (inclusive of Phase II ESA and Supplemental ESA findings) are presented on Figure 3, **Attachment A**. While overall delineation of soil impacts has not been fully achieved, it has been achieved to the extent possible within the site property boundaries. Tabulated metals results (inclusive of Phase II ESA and Supplemental ESA findings) are presented in Table C-1, **Attachment C**. Laboratory certificates of analysis are presented in **Attachment D**.

pH in Soil

Seventeen (17) select soil samples were submitted to ALS for pH determination. Samples were selected to provide information across the site. Results indicated that the soluble pH ranged from 3.90 to 7.53, indicating a range of acidic to alkaline conditions across the site.

Tabulated pH results are presented in Table C-1, Attachment C. Laboratory certificates of analysis are presented in Attachment D.



Petroleum Hydrocarbons in Soil

Based on site observations during the Supplemental ESA, two (2) soil samples were collected for BTEX/TPH analysis in areas of on-site abandoned vehicles. No BTEX concentrations were detected in the two (2) analyzed soil samples, with detected TPH concentrations (with unidentified compounds noted in the fuel/lube range; possible lube oil fraction resemblance) reported below the applicable Tier I EQS. No petroleum hydrocarbon exceedances of the Tier I EQS have been found on site to date.

Tabulated petroleum hydrocarbons results (including the Phase II ESA results) are presented in Table C-2, Attachment C. Laboratory certificates of analysis are presented in Attachment D.

ARD in Soil

One (1) soil sample (i.e., BH10 (1.0 mbsg)) was submitted for ARD analysis. Based on the results, the material is not net acid generating; therefore, no action is required to address acid production on this former mine site based on the analysed sample.

The laboratory certificates of analysis are presented in Attachment D.

General Chemistry and Metals in Surface Water

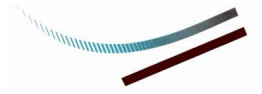
A total of seven (7) surface water samples (i.e., SW11 through SW16², plus one (1) field duplicate (i.e., 25DUP F duplicate of SW15))³ were submitted for general chemistry and total metals analysis, which included total sulphur. Mercury analysis was not completed, as no exceedances of this parameter were identified in surface water during the Phase II ESA.

General chemistry and total metals concentrations in surface water were generally either below laboratory detection limits, or within the applicable Tier I EQS, with the following exceptions:

- Aluminum concentrations in each of the analysed samples, except for SW16, ranging from 0.0080 mg/L (in SW15) to 0.0366 mg/L (in SW14), exceeded the NS Tier I EQS of 0.005 mg/L; and
- The iron concentrations of 0.546 mg/L and 0.331 mg/L at SW11 and SW13, respectively, exceeded the Tier I EQS 0.3 mg/L.

² With SW12 and SW13 collected from Gouthro Lake and the remaining samples collected from on-site water courses, including SW11, which was collected from an on-site watercourse near Gouthro Lake.

³ Note that there are no correlating surface water samples to SED17 and SED18, as these on-site watercourse locations were found to be dry at the time of the sampling program.



While there is potential for the above noted exceedances in surface water to be naturally occurring, off-site background sampling of surface water, including additional sampling within Gouthro Lake, would be required to confirm.

Sulphur concentrations were detected in each of the analyzed surface water samples ranging from 2.22 mg/L (in SW14) to 4.45 mg/L (in SW15). There is no Tier I EQS for sulphur in surface water.

The surface water sampling locations are presented of Figure 4, Attachment A. General chemistry and metals results for surface water can be found in Table C-3, Attachment C. Laboratory certificates of analysis can be found in Attachment D.

Metals in Sediment

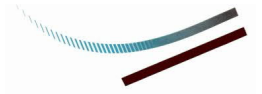
A total of nine (9) sediment samples (i.e., SED11 through SED18⁴ and one (1) field duplicate (i.e., 25 DUP E collected at SED14)) were submitted for metals analysis, including sulphur. Mercury analysis was not completed, as no exceedances of this parameter were found in sediment during the Phase II ESA. Metals concentrations in sediment were generally either below laboratory detection limits or within the applicable NS Tier I EQS, with the following exceptions:

- The copper concentration of 432 mg/kg in SED16, exceeded the Tier I EQS of 197 mg/kg;
- The manganese concentration of 1,470 mg/kg in SED11 exceeded the Tier I EQS of 1,100 mg/kg; and
- The zinc concentration of 489 mg/kg in SED16 exceeded the Tier I EQS of 315 mg/kg.

There were two (2) detected sulphur concentrations at SED12 and SED13, both located within Gouthro Lake, with a concentrations of 7,000 mg/kg and 3,300 mg/kg, noting that while there is no Tier I EQS for sulphur, the concentration at SED12 exceeded the Sulphide Bearing Material Disposal Regulation guideline of 4,000 mg/kg (which has been included for comparison purposes in absence of Tier I EQS).

The sediment sampling locations are presented of Figure 5, **Attachment C**. Metals results for sediment can be found in Table C-4, **Attachment C**. Laboratory certificates of analysis can be found in **Attachment D**.

⁴ Sediment samples SED12 and SED13 were collected from Gouthro Lake, with the remaining samples collected from on-site water courses.



ARD in Sediment

One (1) sediment sample (i.e., SED8) was submitted for ARD analysis. Based on the results, the sample was found to be not net acid generating, therefore, no action is required to address acid production on this former mine site based on the analysed sediment sample.

The sediment sampling location is presented of Figure 5, **Attachment C**. The laboratory certificates of analysis are presented in Attachment D.

TOC in Sediment

TOC concentrations in sediment ranged from 5,600 mg/kg (in SED17 located within an on-site watercourse on the eastern portion of the site) to 83,900 mg/kg (in SED12, located within Gouthro Lake).

The sediment sampling locations are presented of Figure 5, **Attachment C**. The TOC results for sediment can be found in Table C-4, **Attachment C**. The laboratory certificates of analysis are presented in Attachment D.

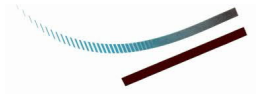
Quality Assurance/Quality Control Discussion

Validation criteria were established that required the analytical data to have an acceptable and documented level of precision, accuracy, representativeness, comparability, and completeness (the PARCC criteria). The precision of the data for the samples collected was evaluated by calculating the RPD between the original samples and its duplicate when the samples had concentrations greater than 5x the laboratory reportable detection limit (RDL). A summary of the criteria comparison and calculated RPD values are presented below.

Laboratory analytical data QA/QC was performed on the following samples:

- Soil samples: 25DUP B collected at BH23 (0.5 m), 25DUP C collected at BH29 (0-0.15 m), 25DUP D collected at BH32 (0-0.15 m), and 25DUP G collected at BH41 (1.5 m);
- Surface water sample: 25DUP F duplicate of SW15; and
- Sediment sample: 25DUP E collected at SED14.

In order to assess the precision and accuracy of the laboratory results, the RPD was calculated for each parameter, where RPDs below 60% for soil/sediment and 40% percent for surface water are deemed to be acceptable. RPD values were not calculated for parameters that had concentrations that were less than five (5) times the RDL. A summary of RPD results, where calculated, indicated the following:



- Calculated RPDs for soil were below the 60% RPD value;
- Calculated RPDs for surface water were below 40%; and
- Calculated RPDs for sediment were below 60%.

ALS laboratory certificates of analysis indicate that a reasonable degree of accuracy was achieved in the soil, surface water and sediment analyses (based on results of method blanks, spiked blanks, field and laboratory duplicates, and matrix spike surrogate recoveries).

Based on field procedures, laboratory methods, sampling program design, and field observations, the analytical results are concluded to be representative of the site conditions in general. Laboratory certificates of analysis are presented in **Attachment D**.

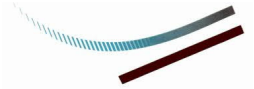
Discussion

Metals exceedances above the NS CSR Tier I EQS (for a potable site with both coarse and fine-grained soils), and above background soil concentrations are present across four areas of the site. Notable, widespread exceedances, when looking at the overall 2023-2025 data set (i.e., Phase II ESA and Supplemental ESA data sets), include aluminum, cadmium, copper, beryllium, iron, selenium, uranium, and zinc. Although not widespread, exceedances of the Tier I EQS and background were also reported for arsenic, cadmium, cobalt, copper, lead, and uranium. While there is no Tier I EQS for sulphur, one (1) concentration during the Phase II ESA (i.e., BH10 (1.0 m)) and two (2) concentrations during this Supplemental ESA (i.e., BH34 (0-0.15 m) and BH41 (1.5 m) (duplicate sample only)) exceeded the Sulphide Bearing Material Disposal Regulation guideline of 4,000 mg/kg (which was referenced for comparison purposes in absence of a Tier I EQS). Based on the Phase II ESA findings, one (1) soil sample (i.e., BH10 1.0 m) was submitted for ARD analysis as part of the Supplemental ESA. Based on the sample results, the material is not net acid generating, therefore, no action is required to address acid production on this former mine site based on the analysed sample.

There were no mercury exceedances reported in soil during the Phase II ESA, therefore, mercury analysis in soil was not completed during the Supplemental ESA.

Soluble pH ranged from 3.90 to 7.53, indicating a range of acidic to alkaline conditions across the site.

Two (2) samples collected for BTEX/TPH analysis in areas of on-site abandoned vehicles had no detectable BTEX concentrations, with detected TPH concentrations (with unidentified compounds noted in the fuel/lube range; possible lube oil fraction



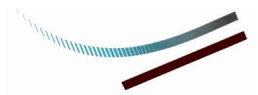
resemblance) reported below the applicable NS Tier I EQS. No petroleum hydrocarbon exceedances of the Tier I EQS have been found on site to date.

Metals impacts in soil are located in four areas across the site as follows:

- Area 1: Metals impacts in soil on the north portion of the site are laterally delineated. Although Tier I EQS metals exceedances were found in two (2) deeper soil samples in this location (i.e., BH46 (0.7 m) and BH47 (1.35 m)), when compared to background there are no exceedances remaining, providing vertical delineation at 0.7 mbgs;
- Area 2: Metals impacts in soil on the west portion of the site are delineated to the north, east and south. Lateral delineation of metals impacts in soil has not been achieved to the west. Off-site soil sampling would be required to obtain lateral delineation to the west. Although Tier I EQS metals exceedances were found in a deeper sample in this location (i.e., BH21 (0.5 m)), when compared to background there are no exceedances remaining, providing vertical delineation;
- Area 3: Metals impacts in soil on the south portion of the site have been laterally delineated to the north and east. Lateral delineation of metals impacts in soil have not been delineated to the west or south. Off-site soil sampling would be required to obtain lateral delineation to the west and south. Findings of surface water sampling completed in Gouthro Lake downgradient of Area 3 indicate two (2) exceedances in surface water for aluminum and iron (SW13). While these surface water exceedances may be attributed to background conditions, further surface water sampling would be required to confirm. No exceedances were found in the correlating sediment sample (i.e., SED13). Vertical delineation of soil impacts has not been achieved; and
- Area 4: Metals impacts in soil on the southeast portion of the site are delineated laterally to the north, east and west. Lateral delineation of metals impacts in soil has not been achieved to the south. Delineation to the south and would require off-site sampling. It is noted that south of Area 4 is Gouthro Lake. Findings of surface water sampling completed in Gouthro Lake downgradient of Area 4 indicate one (1) exceedance in surface water for aluminum (SW12), which may be attributed to background conditions; however, further surface water sampling would be required to confirm. Findings of sediment sampling completed in Gouthro Lake downgradient of Area 4 indicate one (1) exceedance in sediment for sulphur. Vertical delineation has not been achieved.

As noted above, additional sampling is required to fully achieve lateral and vertical delineation. The four above noted areas are shown on Figure 3, **Attachment A**.

Based on the analytical results for surface water samples collected during the Phase II ESA and this Supplemental ESA from on-site water courses and from Gouthro Lake, aluminum, copper, iron and/or manganese concentrations exceeded the Tier I EQS at each sample location. Some of the metals exceedances in surface water may be



attributed to background; however, off-site sampling would be required to confirm. Surface water exceedances have not been delineated. Sulphur concentrations were detected in each of the analyzed surface water samples. There is no Tier I EQS for sulphur in surface water.

Metals concentrations in the sediment samples collected during the Phase II ESA and this Supplemental ESA were generally either below laboratory detection limits, or within the applicable NS Tier I EQS, with the exception of copper, lead, manganese and/or zinc at four sample locations (i.e., SED8, SED9, SED11, and SED16).

The only detected sulphur concentration during the Phase II ESA was at SED8, with a concentration of 5,500 mg/kg. During the Supplemental ESA there were two (2) detected sulphur concentrations at SED12 and SED13, both located within Gouthro Lake. While there is no Tier I EQS for sulphur, the concentrations at SED8 and SED12 exceed the Sulphide Bearing Material Disposal Regulation guideline of 4,000 mg/kg (which has been included for comparison purposes in absence of Tier I EQS). Based on the Phase II ESA findings, analysis of sediment from SED8 for ARD was completed during the Supplemental ESA and found that the sediment is not net acid generating, therefore, no action is required to address acid production on this former mine site based on the analysed sediment sample.

TOC concentrations in sediment ranged from 5,600 mg/kg (in SED17 located within an on-site watercourse on the eastern portion of the site) to 83,900 mg/kg (in SED12, located within Gouthro Lake).

Closing

We trust this is sufficient for your purposes at this time. However, if you have any questions or concerns, please contact the undersigned at your convenience.

Yours truly,

DILLON CONSULTING LIMITED

Nadine Wambolt, B. Tech, CET
Project Manager

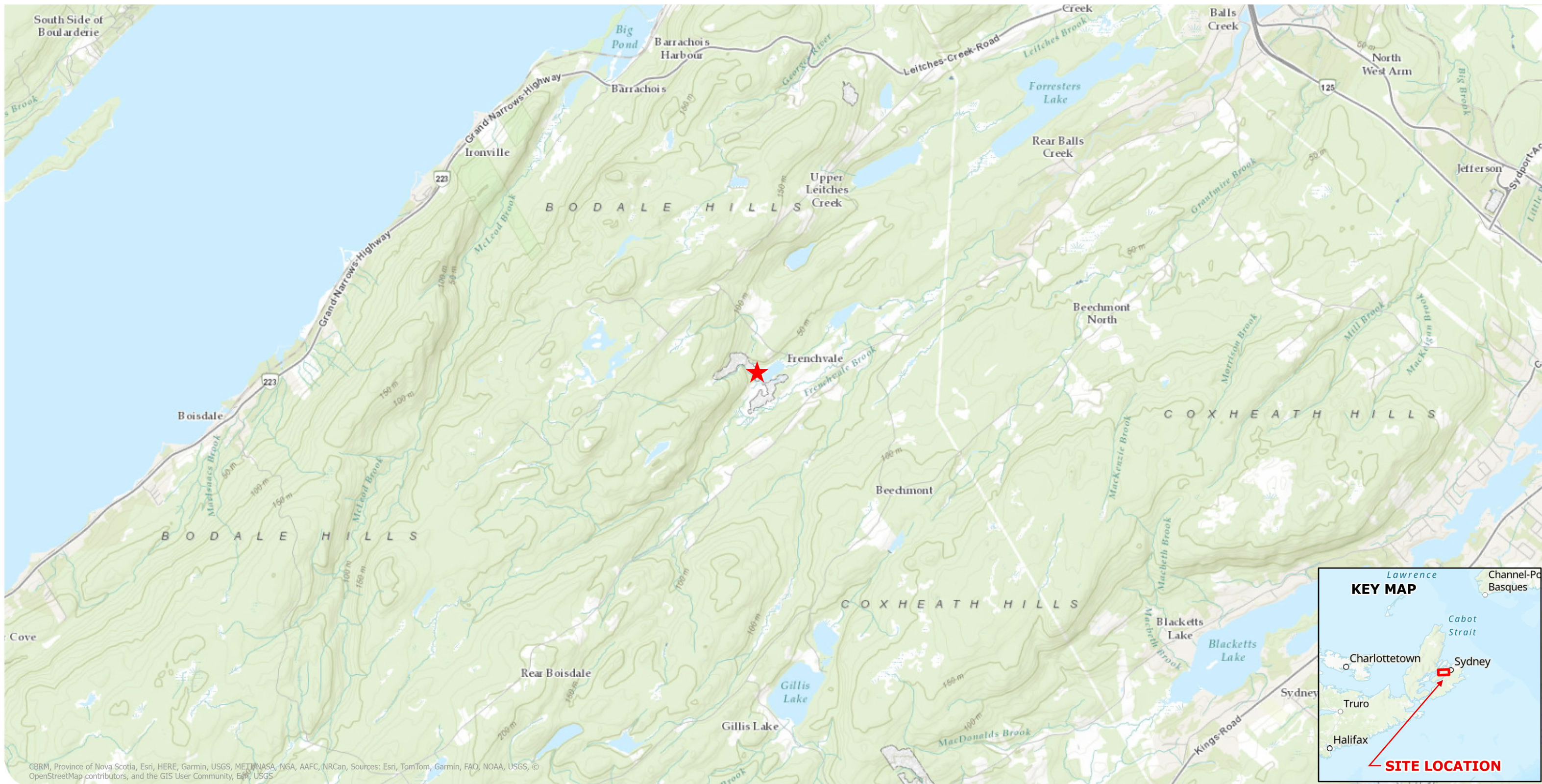
Susan Barfoot, P.Eng.
Site Professional

NJW/lmk

Our File: 24-8606

Attachment A

Figures



CBRM, Province of Nova Scotia, Esri, HERE, Garmin, USGS, METI, NASA, NGA, AAFC, NRCAN, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Esri, USGS

BUILD NOVA SCOTIA

Supplemental Site Assessment

★ Site Location

SITE LOCATION MAP

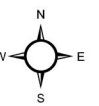
FIGURE 1



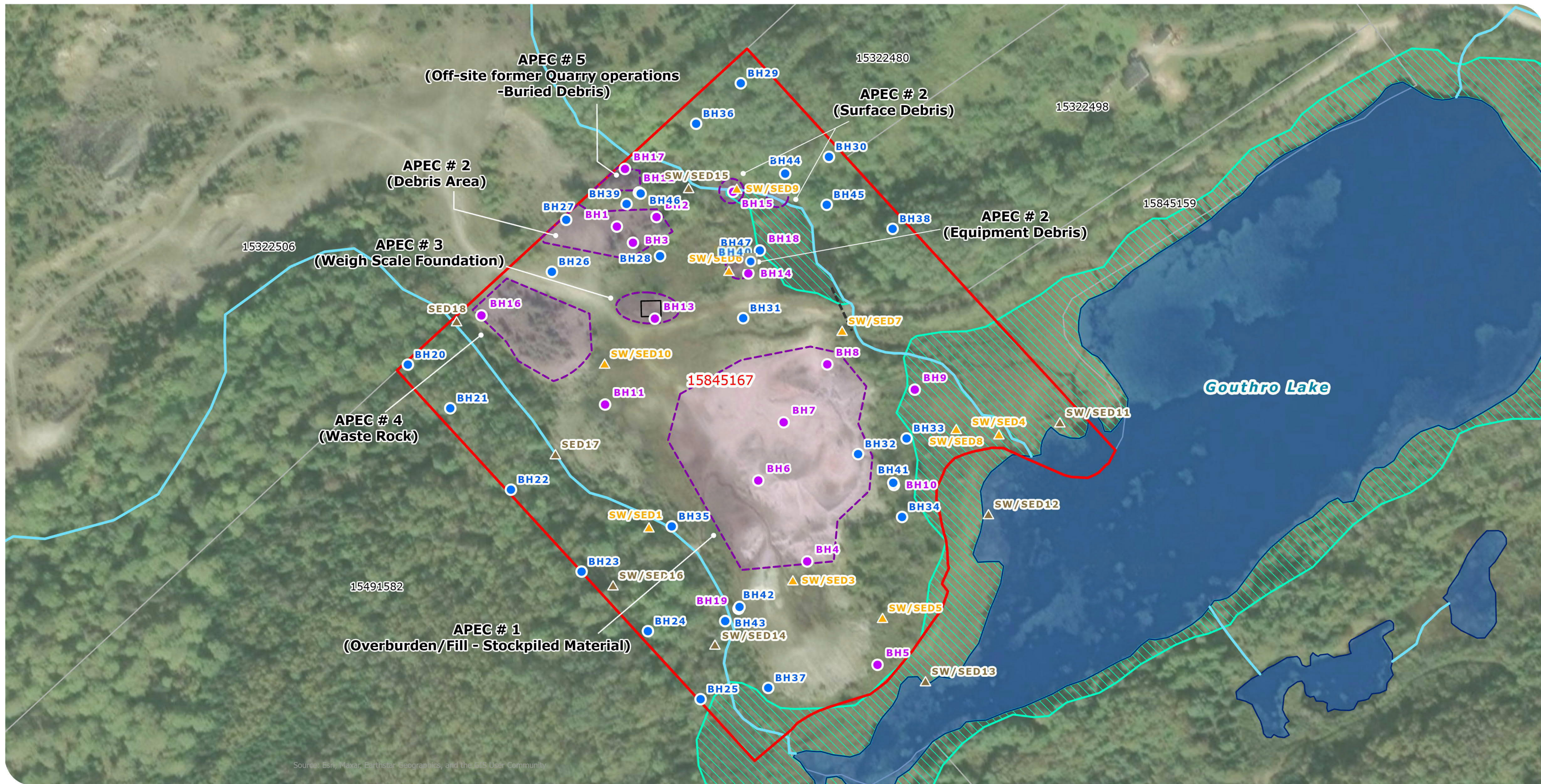
MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI & Dillon consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: WGS 1984 Web Mercator Auxiliary Sphere

SCALE 1:80,000



PROJECT: 24-8606 STATUS: FINAL DATE: 2025-09-12



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

BUILD NOVA SCOTIA

Supplemental Site Assessment

● Soil Sample (Phase II ESA)

● Soil Sample (Supplemental ESA)

▲ Surface Water and Sediment Sample (Phase II ESA)

▲ Surface Water and Sediment Sample (Supplemental ESA)

▭ Subject Property Boundary

▭ Adjacent Parcels

--- Culvert

— Watercourse (GeoNova)

▨ Wetland (GeoNova)

▭ Waterbody (GeoNova)

▭ APEC (Area of Potential Environmental Concern)

▭ Weigh Scale Foundation

SAMPLE LOCATIONS

FIGURE 2



MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI, GeoNova, Build NS & Dillon Consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: NAD 1983 CSRS UTM Zone 20N

Note:

Areas of partially buried debris were observed across the site. Based on interview information, there is potential for on-site buried debris (exact location, if present, is unknown). Assessment of APEC # 2 was across the site as applicable.

SCALE 1:1,900

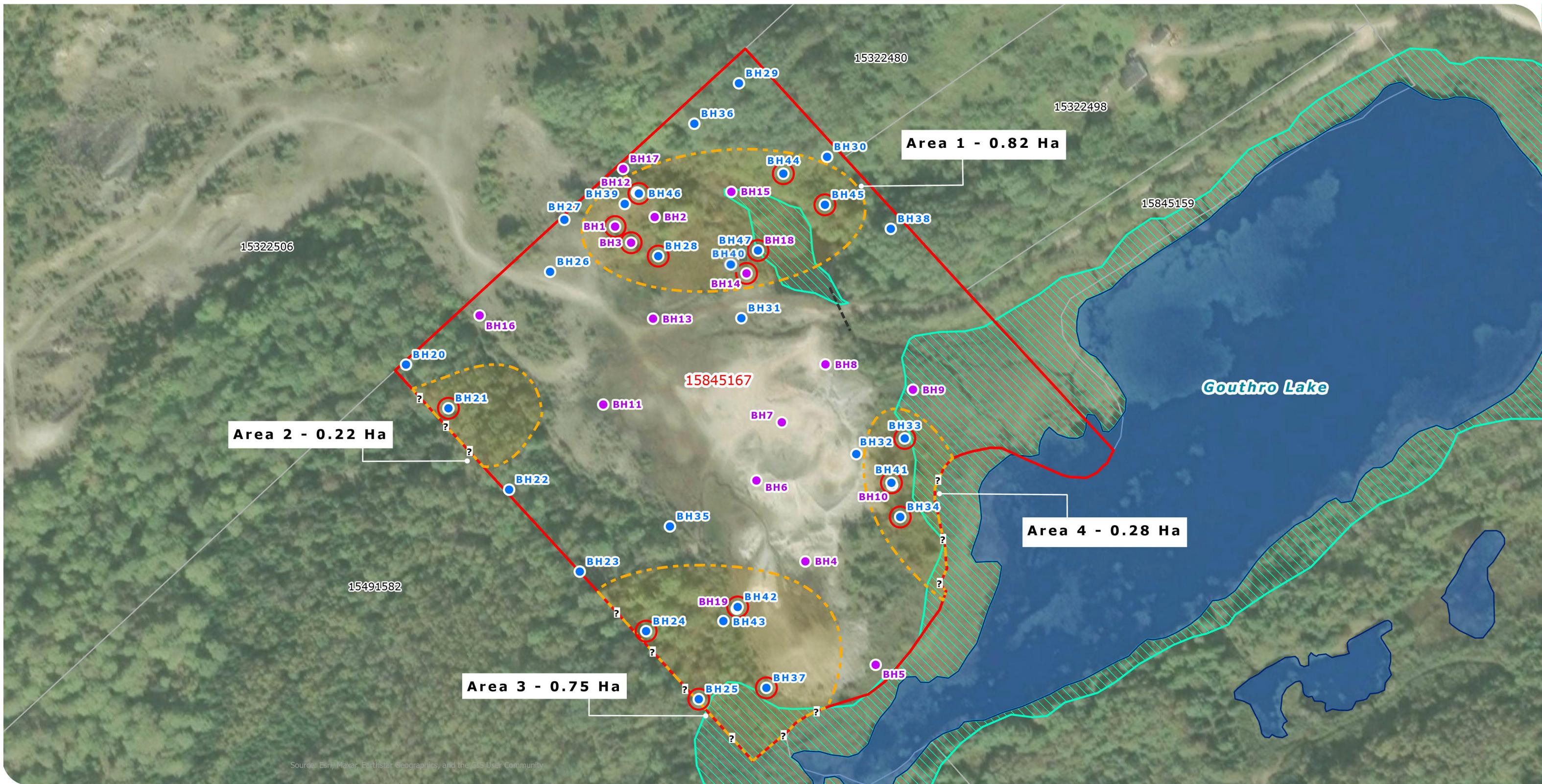
0 15 30 60 Metres



PROJECT: 24-8606

STATUS: FINAL

DATE: 2025-09-12



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

BUILD NOVA SCOTIA

Supplemental Site Assessment

- Soil Sample (Phase II ESA)
- Soil Sample (Supplemental ESA)
- Metals Exceedance of both the Tier I EQS and Background

- Estimated Extent of Metals Impacts in Soil
- Subject Property Boundary
- Adjacent Parcels
- Culvert

- Wetland (GeoNova)
- Waterbody (GeoNova)
- ? Denotes Delineation Not Achieved

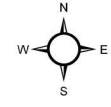
METALS EXCEEDANCES IN SOIL

FIGURE 3



MAP DRAWING INFORMATION:
 DATA PROVIDED BY ESRI, GeoNova, Build NS & Dillon Consulting Ltd.
 MAP CREATED BY: CHM
 MAP CHECKED BY: NJW
 MAP PROJECTION: NAD 1983 CSRS UTM Zone 20N

SCALE 1:1,900
 0 15 30 60 Metres



PROJECT: 24-8606 STATUS: FINAL DATE: 2025-09-12



BUILD NOVA SCOTIA
Supplemental Site Assessment

- ▲ Surface Water and Sediment Sample (Phase II ESA)
- ▲ Surface Water and Sediment Sample (Supplemental ESA)

- Metals Exceedance of both the Tier I EQS and Background
- Subject Property Boundary
- Adjacent Parcels

- Culvert
- Watercourse (GeoNova)
- ▨ Wetland (GeoNova)
- Waterbody (GeoNova)

SURFACE WATER METAL EXCEEDANCES

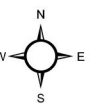
FIGURE 4



MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI, GeoNova, Build NS & Dillon Consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: NAD 1983 CSRS UTM Zone 20N

SCALE 1:1,900



PROJECT: 24-8606 STATUS: FINAL DATE: 2025-09-12



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

BUILD NOVA SCOTIA

Supplemental Site Assessment

- ▲ Surface Water and Sediment Sample (Phase II ESA)
- ▲ Surface Water and Sediment Sample (Supplemental ESA)

- Metals Exceedance of both the Tier I EQS and Background
- Subject Property Boundary
- Adjacent Parcels

- Culvert
- Watercourse (GeoNova)
- Wetland (GeoNova)
- Waterbody (GeoNova)

SEDIMENT METAL EXCEEDANCES

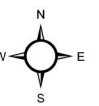
FIGURE 5



MAP DRAWING INFORMATION:
DATA PROVIDED BY ESRI, GeoNova, Build NS & Dillon Consulting Ltd.

MAP CREATED BY: CHM
MAP CHECKED BY: NJW
MAP PROJECTION: NAD 1983 CSRS UTM Zone 20N

SCALE 1:1,900



PROJECT: 24-8606

STATUS: FINAL

DATE: 2025-09-12

Attachment B

Test Hole Log

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
Phase II ESA									
BH1									
BH1 0-0.15m	0 - 0.15	5108858	700472	Brown to Black	Sand with some gravel, damp	N	N	5	Burned tire debris at surface.
BH1 0.30m	0.15 - 0.30			Brown to Black	Sand with some gravel, damp; iron oxides observed	Y	N	5	Black and orange staining observed
BH2									
BH2 0-0.15m	0 - 0.15	5108863	700492	Reddish grey to brown	Silty sand with crushed gravel, damp	N	N	5	
BH 0.37m	0.15 - 0.37			Brown	Silty sand with crushed gravel, damp	N	N	5	
BH3									
BH3 0-0.15m	0 - 0.15	5108850	700480	Dark brown	Silty sand, gravel and glass pieces, damp	N	N	5	
BH3 0.34m	0.15-0.34			Brown	Silty gravelly sand with crushed gravel	N	N	5	egg shell pieces observed.
BH4									
BH4 0-0.15m	0 - 0.15	5108686	700569	Grey	Organics underlain with silty sand and crushed gravel, damp	N	N	5	
No sample collected	0.15-0.50			Dark brown	Silty sand and crushed gravel, damp to wet	N	N	-	
BH4 0.65m	0.50-0.65			Yellowish grey	Silty sand with crushed gravel, damp to wet; possible iron oxides	Y	N	5	Orange staining observed
BH5									
BH5 0-0.15m	0 - 0.15	5108633	700605	Dark Brown/grey	Peat underlain with fine grained sand/silt, damp	N	N	5	
BH5 1.00m	0.15 - 1.0			Dark Brown	Grey sand with fine grained sand/silt	N	N	5	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH6									
BH6 0-0.15m	0 - 0.40	5108728	700544	Dark grey	Gravelly sand, some silt and crushed gravel, damp	N	N	-	
BH6 0.55m	0.40-0.55			Reddish grey	Gravelly sand, some silt and crushed gravel, damp	N	N	-	
BH7									
BH7 0-0.15m	0 - 0.15	5108758	700557	Reddish grey	Gravelly sand, crushed gravel, dry to damp	N	N	-	
BH7 0.49m	0.15 - 0.49			Reddish grey	Gravelly sand, crushed gravel, dry to damp	N	N	-	
BH8									
BH8 0-0.15m	0-0.45	5108787	700580	Grey/red	Sand and crushed gravel, damp	N	N	-	
BH8 1.0m	0.45 - 1.0			Grey	Sand and crushed gravel, damp	N	N	-	
BH9									
BH9 0-0.15m	0 - 0.15	5108774	700624	Black/grey to Orange brown	Horse hair, moss/organics underlain with black/grey sand, some gravel, wet	N	N	-	
BH9 1.0m	0.15-1.0			Dark grey	Sand with trace gravel, saturated	N	N	-	Groundwater encountered at 0.75m
BH10									
BH10 0-0.15m	0 - 0.15	5108725	700614	Dark brown	Silt with some organics, damp	N	N	-	
BH10 1.00m	0.15 - 1.00			Grey Brown	Silt with some organics, wet	N	N	-	
BH11									
BH11 0-0.15m	0 - 0.15	5108767	700465	Grey	Organics underlain with sand, crushed gravel, wet; possible waste rock observed	N	N	-	
BH11 0.27m	0.15-0.27			Grey	Sand with crushed gravel, wet; possible waste rock observed	N	N	-	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH12									
BH12 0-0.15m	0 - 0.15	5108876	700483	Dark Brown	Sand, crushed gravel and organics, damp	N	N	5	
BH12 0.47m	0.15 - 0.47			Brown	Sand and crushed gravel, wet	N	N	0	
BH13									
BH13 0-0.15m	0 - 0.15	5108811	700491	Brown to grey	Organics underlain with sand, some silt and crushed gravel, wet	N	N	5	
BH13 0.51m	0.15-0.51			Grey	Sand and crushed gravel, wet	N	N	0	
BH14									
BH14 0-0.15m	0 - 0.15	5108834	700539	Brown	Silty sand, crushed gravel and some silt, damp	N	N	5	Petroleum hydrocarbon odour
BH14 0.90m	0.70-0.90			Brown	Silty sand, some gravel	Y	Y	10	Groundwater encountered at approximately 0.70m.
BH15									
BH15 0-0.15m	0 - 0.15	5108876	700531	Dark Brown	Silty gravelly sand and some organics, wet	N	N	5	Groundwater encountered at approximately 0.15m
BH15 0.29m	0.15 - 0.29			Dark Brown	Silty gravelly sand and some organics, wet	N	N	0	
BH16									
BH16 0-0.15m	0 - 0.15	5108812	700402	Brown/grey	Sand with waste rock pieces, some organics, damp	N	N	-	
BH16 0.30m	0.15 - 0.30			Dark brown	Sand with waste rock piece and 2" gravel, some organics, damp	N	N	-	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH17									
BH17 0-0.15m	0 - 0.15	5108888	700476	Grey/brown	Medium to coarse sand and gravel overlain by waste rock and leaf litter, damp.	N	N	-	
BH18									
BH18 0-0.15m	0-0.15	5108846	700545	Brown	Organic layer at surface, sand with some silt, crushed red gravel and organics, damp.	N	N	-	
BH19									
BH19 0-0.15m	0-0.15	5108662	700534	Reddish brown	Silty sand with gravel; mica fragments observed	N	N	-	
Supplemental ESA									
BH20									
BH20 0-0.15m	0-0.15	5108787	700364	Dark Brown	Silty sand and organics with trace gravel, damp	N	N	-	
BH20 0.15-0.50m	0.15-0.50			Brown	Silty sand with some gravel, damp	N	N	-	Trace yellow sand at 0.30m
BH21									
BH21 0-0.15m	0-0.15	5108765	700386	Dark Brown	Sand with organics, damp	N	N	-	
BH21 0.15-0.38m	0.15-0.38			Dark Brown	Sand with gravel and less organics, damp	N	N	-	
BH21 0.38-0.50m	0.38-0.50			Light Brown	sand with trace gravel, damp	N	N	-	
BH22									
BH22 0-0.15m	0-0.15	5108723	700417	Brown	Sand with trace gravel and organics, damp	N	N	-	
BH22 0.15-0.50m	0.15-0.50			Brown	sand with trace gravel, damp	N	N	-	Transition to light brown at 0.50m

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH23									
BH23 0-0.15m	0-0.15	5108681	700453	Brown	Sand with trace gravel and trace organics, damp	N	N	-	
BH23 0.15-0.50	0.15-0.50			Brown	Sandy clay with trace gravel and organics	N	N	-	Transition to light brown at 0.41m
BH24									
BH24 0-0.15m	0-0.15	5108650	700487	Dark brown	Sand with trace organics and gravel, damp	N	N	-	
BH24 0.15-0.50m	0.15-0.50			Brown	Sandy clay, damp	N	N	-	
BH25									
BH26 0-0.15m	0-0.10	5108615	700515	Black to Brown	Black organics, damp	N	N	-	
BH26 0.15-0.44m	0.10-0.44			Brown	Sand with trace gravel, damp	N	N	-	Augering refused at 0.44m
BH26									
BH26 0-0.15m	0-0.15	5108835	700438	Grey	Sand with gravel, damp	N	N	-	Location among fine and coarse waste rock
BH27									
BH27 0-0.15m	0-0.15	5108862	700446	Brown	Sand with gravel, damp	N	N	-	Location among fine and coarse waste rock
BH28									
BH28 0-0.15m	0-0.15	5108843	700494	Brown	Sand with fine gravel, damp	N	N	-	Location among fine waste rock
BH29									
BH29 0-0.15m	0-0.15	5108932	700535	Brown	Silty sand with trace gravel, damp	N	N	-	
BH30									
BH30 0-0.15m	0-0.15	5108894	700580	Brown	Silty sand with trace gravel, damp	N	N	-	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH31									
BH31 0-0.15m	0-0.15	510881	700536	Grey	Sand with trace gravel, wet	N	N	-	Manganese and organics present at the surface
BH32									
BH32 0-0.15m	0-0.15	5108741	700595	Grey	Sand with gravel, damp	N	N	-	
BH33									
BH33 0-0.15m	0-0.15	5108749	700620	Dark brown	Clayey sand, damp to wet	N	N	-	Location near the base of tailings
BH34									
BH34 0-0.15m	0-0.15	5108709	700618	Dark brown	Silty sand and organics, damp to wet	N	N	-	Location at inferred base of tailings
BH35									
BH35 0-0.15m	0-0.15	5108704	700500	Dark brown	Sandy silt with organic, saturated	N	N	-	
BH36									
BH36 0-0.15m	0-0.15	5108911	700512	Dark brown	Sandy silt, trace gravel, damp	N	N	-	
BH37									
BH37 0-0.15m	0-0.15	5108621	700549	Brown	Silty sand with some gravel, damp	N	N	-	
BH38									
BH38 0-0.15m	0-0.15	5108857	700613	Brown	Sand with trace gravel, damp	N	N		
BH39									
BH39 0-0.15m	0-0.15	5108870	700477	Dark brown	Sand with organics and trace gravel, damp	N	N	-	
BH39 0.15-0.35m	0.15-0.35			Dark brown	Sand with some gravel, damp	N	N	-	Augering Refused at 0.35

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH40									
BH40 0-0.15m	0-0.15			Dark brown	Sand with some gravel and organics, damp	N	N	-	
BH40 0.15-0.35m	0.15-0.35			Brown	Sand with some gravel and organics, damp	N	N	-	
BH40 0.35-0.72m	0.35-0.72			Brown	Sand with some gravel and organics, wet	N	N	-	Auger refusal at 0.72m.
BH41									
BH41 0-0.15m	0-0.15			Dark brown	Silty sand with organics, damp	N	N	-	
BH41 0.15-1.0m	0.15-1.0	5108727	700613	Dark brown	clay with organics, damp	N	N	-	
BH41 1.0-1.50m	1.0-1.50			Dark brown	Silty clay with organics, wet	N	N	-	
BH42									
BH42 0-0.15m	0-0.15			Brown	Sand with some gravel, damp	N	N	-	
BH42 0.15-0.35m	0.15-0.35	5108663	700535	Brown	Sand with some gravel, damp	N	N	-	
BH42 0.35-0.45m	0.35-0.45			Brown	Sand with more gravel, damp	N	N	-	Augering refused at 0.45m due to gravel
BH43									
BH43 0-0.15m	0-0.15	5108656	700527	Dark	Brown Sand with some silt, damp	N	N	-	
BH44									
BH44 0-0.15m	0-0.15	5108885	700558	Dark brown	Silty sand, organics	N	N	-	Sample location below empty gas tank
BH45									
BH45 0-0.15m	0-0.15	5108869	700579	Dark brown	Silty sand and organics, damp	N	N	-	

Test Hole Logs

Sample Location	Depth (mbgs)	UTM Northing	UTM Easting	Color	Description	Stains Y/N	Odours Y/N	VOC Reading (PPM)	Comments
BH46									
BH46 0-0.15m	0-0.15	5108875	700484	Dark brown	Sand with some organics and trace gravel, damp	N	N	-	
BH46 0.15-0.25m	0.15-0.25			Dark brown	Sand with some gravel, wet	N	N	-	
BH46 0.25-0.70m	0.25-0.70			Brown	Sand with some silt, wet	N	N	-	
BH47									
BH47 0-0.15m	0-0.15			Brown	Sand with organics, damp	N	N	-	
BH47 0.15-0.30m	0.15-0.30			Brown	Sand with trace gravel, damp	N	N	-	
BH47 0.30-0.75m	0.30-0.75			Brown to Grey	Sand with trace gravel, wet to saturated	N	N	-	
BH47 0.75-1.35m	0.75-1.35			Grey	Sand, saturated	N	N	-	No recovery between 0.75m - 1.0m

Attachment C

Tables

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location							
					BH1		BH2		BH3		BH4	BH5
					BH1 (0-0.15m)	BH1 (0.30m)	BH2 (0-0.15m)	QAQC 01	BH3 (0-0.15m)	BH3 (0.34m)	BH4 (0-0.15m)	BH5 (0-0.15m)
					Depth	0-0.15m	0.30m	0-0.15m	0-0.15m	0-0.15m	0.34m	0-0.15m
Sample Type	Normal	Normal	Normal	Duplicate (BH2 (0-0.15m))	Normal	Normal	Normal	Normal				
Date	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024			
Particle Size												
% >75um	%	1	-	-	-	-	-	-	-	-	-	-
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	-	-	-	-	-	-
Texture	N/A		-	-	-	-	-	-	-	-	-	-
Soluble Parameters												
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	-
General Chemistry												
Moisture Content	%	0.25	-	-	16.8	-	8.34	10.8	16.7	-	11.5	55.4
pH (Lab)	pH Units	0.1	-	-	7.25	-	7.85	-	7.00	-	7.67	7.00
Electrical Conductivity (Lab)	µS/cm	5	-	-	113	-	123	-	153	-	146	403
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	-
Metals												
Aluminium	mg/kg	50	15,400	28,000	20,700	21,900	6,160	5,470	25,900	26,400	12,700	7,920
Antimony	mg/kg	0.1	7.5	2	<0.10	<0.10	0.11	<0.10	1.34	1.84	<0.10	<0.10
Arsenic	mg/kg	0.1	10	16.8	2.52	2.70	2.66	1.71	2.82	2.86	2.11	1.78
Barium	mg/kg	0.5	350	120	34.8	34.3	15.3	13.0	31.7	31.3	16.1	33.9
Beryllium	mg/kg	0.1	1	1	0.74	0.77	0.28	0.26	0.82	0.85	0.77	0.44
Boron	mg/kg	5	4,300	0.62	<5.0	<5.0	<5.0	<5.0	<5.0	5.4	<5.0	<5.0
Cadmium	mg/kg	0.02	1	0.4	0.286	0.181	0.696	0.589	0.287	0.208	0.302	0.373
Chromium (Total, III+VI)	mg/kg	0.5	630	81	20.4	21.6	5.12	4.66	26.6	28.9	13.2	8.42
Cobalt	mg/kg	0.1	22	26	12.2	12.5	4.68	4.37	14.8	16.0	7.57	4.65
Copper	mg/kg	0.5	250	49	285	25.1	56.3	64.3	42.3	33.8	35.8	15.1
Iron	mg/kg	50	11,000	52,000	26,000	27,600	6,280	6,180	36,200	35,700	16,800	9,570
Lead	mg/kg	0.5	120	84	20.0	14.4	36.0	34.8	38.9	41.5	34.8	27.4
Manganese	mg/kg	1	360	4340	585	613	553	510	565	560	702	824
Mercury	mg/kg	0.005	24	0.121	0.0250	0.0266	0.0204	0.0156	0.0268	0.0282	0.0075	0.0382
Molybdenum	mg/kg	0.1	15	1.1	0.64	0.73	0.33	0.34	0.81	0.78	0.57	1.24
Nickel	mg/kg	0.5	70	48	18.9	20.4	5.78	5.25	24.7	27.5	10.2	6.55
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.2	1	0.8	0.26	0.26	<0.20	<0.20	0.48	0.46	<0.20	0.76
Silver	mg/kg	0.1	77	0.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Strontium	mg/kg	0.5	9,400	5.3	45.6	28.4	127	128	21.2	19.4	64.8	64.4
Sulfur	mg/kg	1000	4000 ²	-	<1000	<1,000	<1000	<1000	<1000	<1,000	<1000	1600
Thallium	mg/kg	0.05	1	0.4	0.124	0.107	0.073	0.070	0.132	0.122	0.100	0.074
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	mg/kg	0.05	30	1.2	1.35	1.18	1.44	1.08	1.47	1.89	2.27	11.8
Vanadium	mg/kg	0.2	39	86	46.4	49.2	13.2	12.4	55.0	59.0	29.8	17.1
Zinc	mg/kg	2	200	270	631	428	199	191	382	223	133	86.2

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

Notes:

- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
- 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
- 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
- 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
- 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
<i>Italics</i>	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location								
					BH6	BH7			BH8	BH9	BH10		
					Sample ID	BH6 (0-0.15m)	BH7	BH7	QAQC 02	BH8 (0-0.15m)	BH9 (0-0.15 m)	BH10 (0-0.15m)	BH10 (1.0m)
					Depth	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	1.0m
Sample Type	Normal	Normal	Normal	Duplicate (BH7 0-0.15)	Normal	Normal	Normal	Normal	Normal				
Date	15 Oct 2024	15 Oct 2024	17 Oct 2024	17 Oct 2024	15 Oct 2024	17 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024				
Particle Size													
% >75µm	%	1	-	-	-	75.5	-	-	-	-	-	-	
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	24.5	-	-	-	-	-	-	
Texture	N/A		-	-	-	Coarse	-	-	-	-	-	-	
Soluble Parameters													
Soluble Magnesium	mg/L	0.5	-	-	-	-	<0.50	-	-	-	16.6	-	
Soluble Sodium	mg/L	0.5	-	-	-	-	<0.50	-	-	-	6.20	-	
Chloride (2:1)	ug/g	5	-	-	-	-	<5.0	<5.0	-	-	33.6	-	
General Chemistry													
Moisture Content	%	0.25	-	-	7.91	7.43	-	-	6.48	-	-	-	
pH (Lab)	pH Units	0.1	-	-	7.98	-	7.86	7.89	8.02	7.17	7.03	-	
Electrical Conductivity (Lab)	µS/cm	5	-	-	100	-	94.5	94.4	95.9	229	650	-	
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	<0.10	<0.10	-	-	0.19	-	
Metals													
Aluminium	mg/kg	50	15,400	28,000	6,340	-	8,580	7,150	5,160	8,180	26,300	23,000	
Antimony	mg/kg	0.1	7.5	2	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10	0.12	
Arsenic	mg/kg	0.1	10	16.8	1.47	-	1.88	1.65	1.00	1.20	3.51	3.36	
Barium	mg/kg	0.5	350	120	10.6	-	17.4	15.6	8.74	9.14	63.0	46.4	
Beryllium	mg/kg	0.1	1	1	0.31	-	0.44	0.34	0.31	0.41	1.80	1.65	
Boron	mg/kg	5	4,300	0.62	<5.0	-	9.5	8.1	<5.0	6.5	<5.0	7.4	
Cadmium	mg/kg	0.02	1	0.4	0.420	-	0.429	0.358	0.088	0.109	0.995	0.788	
Chromium (Total, III+VI)	mg/kg	0.5	630	81	9.42	-	7.45	6.54	8.19	12.0	19.7	20.8	
Cobalt	mg/kg	0.1	22	26	4.23	-	7.74	6.60	3.27	4.46	10.6	10.2	
Copper	mg/kg	0.5	250	49	9.41	-	114	99.2	10.5	8.24	43.8	34.4	
Iron	mg/kg	50	11,000	52,000	9,070	-	13,300	9,510	6,220	7,820	20,000	16,900	
Lead	mg/kg	0.5	120	84	58.3	-	23.5	22.6	7.28	7.08	28.3	30.4	
Manganese	mg/kg	1	360	4340	655	-	934	870	638	664	825	558	
Mercury	mg/kg	0.005	24	0.121	<0.0050	-	0.0189	0.0167	<0.0050	<0.0050	0.125	0.0741	
Molybdenum	mg/kg	0.1	15	1.1	0.51	-	0.38	0.29	0.29	1.14	1.53	1.72	
Nickel	mg/kg	0.5	70	48	9.73	-	8.83	7.40	5.70	8.26	18.0	17.8	
Calcium Dissolved	mg/L	0.5	-	-	-	-	1.32	-	-	-	49.4	-	
Selenium	mg/kg	0.2	1	0.8	<0.20	-	<0.20	<0.20	<0.20	<0.20	2.92	2.29	
Silver	mg/kg	0.1	77	0.5	<0.10	-	<0.10	<0.10	<0.10	<0.10	0.14	0.10	
Strontium	mg/kg	0.5	9,400	5.3	86.2	-	108	97.2	74.7	64.1	32.1	35.4	
Sulfur	mg/kg	1000	4000 ²	-	<1000	-	<1000	<1000	<1000	<1000	2500	4,600	
Thallium	mg/kg	0.05	1	0.4	0.077	-	0.095	0.077	0.089	0.096	0.243	0.240	
Tin	mg/kg	2	9,400	0.7	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	mg/kg	0.05	30	1.2	1.71	-	1.52	1.18	2.53	4.93	32.0	29.6	
Vanadium	mg/kg	0.2	39	86	15.2	-	22.0	18.1	12.3	16.3	39.9	39.1	
Zinc	mg/kg	2	200	270	175	-	141	127	34.8	51.4	119	128	

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

Notes:

- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
- 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
- 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
- 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
- 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
<i>Italics</i>	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location								
					BH11	BH12		BH13	BH14		BH15	BH16	
					Sample ID	BH11 (0.15m)	BH12 (0-0.15 m)	BH12 (0.47m)	BH13 (0-0.15 m)	BH14 (0-0.15 m)	BH14 (0.90m)	BH15 (0-0.15m)	BH16 (0-0.15m)
					Depth	0.15m	0-0.15m	0.47m	0-0.15m	0-0.15m	0.90m	0-0.15m	0-0.15m
Sample Type	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal				
Date	15 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024				
Particle Size													
% >75um	%	1	-	-	-	-	-	64.8	-	-	-	-	
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	-	35.2	-	-	-	-	
Texture	N/A		-	-	-	-	-	Coarse	-	-	-	-	
Soluble Parameters													
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	<5.0	
General Chemistry													
Moisture Content	%	0.25	-	-	-	35.4	-	28.1	15.7	-	57.5	-	
pH (Lab)	pH Units	0.1	-	-	-	-	-	-	-	-	-	7.22	
Electrical Conductivity (Lab)	µS/cm	5	-	-	-	-	-	-	-	-	-	121	
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	0.10	
Metals													
Aluminium	mg/kg	50	15,400	28,000	15,200	17,700	23,700	9,680	13,600	16,000	8,200	15,200	
Antimony	mg/kg	0.1	7.5	2	<0.10	0.17	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Arsenic	mg/kg	0.1	10	16.8	2.57	2.86	3.28	2.10	2.12	2.56	1.66	2.03	
Barium	mg/kg	0.5	350	120	18.8	28.8	40.4	15.6	25.7	29.5	18.1	17.3	
Beryllium	mg/kg	0.1	1	1	0.80	1.08	0.93	0.47	0.76	0.70	0.40	0.95	
Boron	mg/kg	5	4,300	0.62	7.7	8.1	7.7	7.5	9.7	10.3	10.7	6.8	
Cadmium	mg/kg	0.02	1	0.4	0.282	0.402	0.249	0.239	1.05	1.16	0.414	0.155	
Chromium (Total, III+VI)	mg/kg	0.5	630	81	13.4	15.1	28.0	9.35	11.6	14.2	7.08	9.71	
Cobalt	mg/kg	0.1	22	26	8.96	13.0	16.4	6.58	11.4	16.4	7.24	8.68	
Copper	mg/kg	0.5	250	49	46.2	53.8	79.0	56.2	194	360	106	24.5	
Iron	mg/kg	50	11,000	52,000	18,600	24,300	31,500	13,200	16,000	22,700	10,800	19,600	
Lead	mg/kg	0.5	120	84	23.2	26.2	18.9	20.2	50.0	84.6	20.8	9.48	
Manganese	mg/kg	1	360	4340	723	1,390	854	869	1,210	1,620	1,020	686	
Mercury	mg/kg	0.005	24	0.121	0.0113	0.0295	0.0397	0.0135	0.0291	0.0428	0.0165	0.0095	
Molybdenum	mg/kg	0.1	15	1.1	0.80	0.76	1.32	0.50	0.49	0.40	0.34	0.39	
Nickel	mg/kg	0.5	70	48	13.2	18.0	25.6	8.17	15.1	22.0	8.15	10.4	
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Selenium	mg/kg	0.2	1	0.8	<0.20	0.36	0.44	<0.20	<0.20	<0.20	<0.20	<0.20	
Silver	mg/kg	0.1	77	0.5	<0.10	<0.10	<0.10	<0.10	<0.10	0.14	<0.10	<0.10	
Strontium	mg/kg	0.5	9,400	5.3	59.9	35.9	33.4	78.0	102	94.2	109	52.2	
Sulfur	mg/kg	1000	4000 ²	-	<1,000	<1000	<1,000	<1000	<1000	1,600	<1000	<1000	
Thallium	mg/kg	0.05	1	0.4	0.086	0.140	0.144	0.078	0.141	0.188	0.088	0.099	
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	mg/kg	0.05	30	1.2	1.72	5.31	2.75	1.43	1.08	1.17	1.57	1.76	
Vanadium	mg/kg	0.2	39	86	30.2	40.6	57.9	22.2	27.0	33.4	19.4	35.6	
Zinc	mg/kg	2	200	270	101	87.4	100	94.5	253	467	139	57.5	

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

Notes:

- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
- 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
- 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
- 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
- 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
<i>Italics</i>	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location								
					BH17	BH18		BH19	BH20		BH21		
					Sample ID	BH17 (0-0.15m)	BH18 (0-0.15m)	25DUPA	BH19 (0-0.15m)	BH20 0-0.15m	BH20 0.5m	BH21 0-0.15m	BH21 0.5m
					Depth	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0.50m	0-0.15m	0.5m
Sample Type	Normal	Normal	Duplicate of BH18 0-0.15m	Normal	Normal	Normal	Normal	Normal	Normal				
Date	14 Jan 2025	14 Jan 2025	14 Jan 2025	14 Jan 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025				
Particle Size													
% >75µm	%	1	-	-	-	-	-	-	-	-	-	-	
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	-	-	-	-	-	-	
Texture	N/A		-	-	-	-	-	-	-	-	-	-	
Soluble Parameters													
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	-	
General Chemistry													
Moisture Content	%	0.25	-	-	-	-	-	-	-	-	-	-	
pH (Lab)	pH Units	0.1	-	-	-	-	-	3.90	4.29	4.03	4.78	-	
Electrical Conductivity (Lab)	µS/cm	5	-	-	-	-	-	-	-	-	-	-	
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	-	
Metals													
Aluminium	mg/kg	50	15,400	28,000	14,100	14,800	15,400	21,300	10,800	25,800	9,230	21,000	
Antimony	mg/kg	0.1	7.5	2	<0.10	<0.10	<0.10	0.16	0.26	0.10	0.17	<0.10	
Arsenic	mg/kg	0.1	10	16.8	3.28	2.56	2.46	3.99	2.82	2.42	2.93	2.05	
Barium	mg/kg	0.5	350	120	13.1	25.1	28.4	58.6	46.3	46.7	27.3	20.5	
Beryllium	mg/kg	0.1	1	1	0.94	0.65	0.71	1.86	0.15	0.46	0.23	0.50	
Boron	mg/kg	5	4,300	0.62	5.7	10.5	11.3	14.6	<5.0	<5.0	<5.0	<5.0	
Cadmium	mg/kg	0.02	1	0.4	0.092	0.864	0.911	0.334	0.112	0.145	0.255	0.115	
Chromium (Total, III+VI)	mg/kg	0.5	630	81	8.91	12.3	13.2	14.4	10.3	18.6	7.96	18.0	
Cobalt	mg/kg	0.1	22	26	7.82	13.6	13.7	15.3	3.17	10.0	3.32	9.94	
Copper	mg/kg	0.5	250	49	18.0	288	272	61.0	9.33	17.3	8.16	9.68	
Iron	mg/kg	50	11,000	52,000	23,700	16,400	16,800	29,400	19,100	31,800	15,600	23,900	
Lead	mg/kg	0.5	120	84	4.97	65.3	66.8	14.1	34.9	13.3	23.0	15.5	
Manganese	mg/kg	1	360	4340	451	1,490	1,580	3,250	139	375	104	348	
Mercury	mg/kg	0.005	24	0.121	0.0050	0.0465	0.0360	0.239	-	-	-	-	
Molybdenum	mg/kg	0.1	15	1.1	0.32	0.36	0.38	0.80	0.55	0.54	0.96	0.87	
Nickel	mg/kg	0.5	70	48	10.3	18.8	19.6	20.5	5.46	15.1	4.78	14.3	
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Selenium	mg/kg	0.2	1	0.8	<0.20	<0.20	<0.20	0.36	0.72	0.63	1.09	0.43	
Silver	mg/kg	0.1	77	0.5	<0.10	0.12	0.11	0.16	0.16	<0.10	0.11	<0.10	
Strontium	mg/kg	0.5	9,400	5.3	24.4	90.1	92.9	85.1	11.1	18.4	14.0	17.9	
Sulfur	mg/kg	1000	4000 ²	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	
Thallium	mg/kg	0.05	1	0.4	0.062	0.163	0.172	0.207	0.088	0.088	0.074	0.062	
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	mg/kg	0.05	30	1.2	1.63	1.13	1.22	3.90	0.666	0.869	0.640	0.801	
Vanadium	mg/kg	0.2	39	86	34.4	29.7	32.4	49.8	51.6	59.9	39.3	47.6	
Zinc	mg/kg	2	200	270	42.9	353	356	90.7	30.3	68.4	34.6	66.1	

Environmental Standards
 Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse
 Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

- Notes:
- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
 - 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
 - 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
 - 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH4
 - 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
<i>Italics</i>	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location		BH22				BH23			BH24	
					Sample ID	Sample ID	BH22 0-0.15m	BH22 0.5m	BH23 0-0.5m	BH23 0-0.15m	BH23 0.5m	25DUP B	BH24 0-0.15m	BH24 0.5m	
					Depth	Depth	0-0.15m	0.5 m	0-0.15m	0-0.15m	0.5m	0.5m	0-0.15m	0.5m	
					Sample Type	Sample Type	Normal	Normal	Normal	Normal	Normal	Duplicate of BH23 0.5 m	Normal	Normal	
Date	Date	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025					
Particle Size															
% >75µm	%	1	-	-	-	-	56.6	-	56.6	-	-	-	-	-	-
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	43.4	-	43.4	-	-	-	-	-	-
Texture	N/A		-	-	-	-	Coarse	-	Coarse	-	-	-	-	-	-
Soluble Parameters															
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry															
Moisture Content	%	0.25	-	-	-	-	-	-	-	-	-	-	-	-	-
pH (Lab)	pH Units	0.1	-	-	5.24	5.21	-	4.79	4.84	4.91	4.68	4.99			
Electrical Conductivity (Lab)	µS/cm	5	-	-	-	-	-	-	-	-	-	-			
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	-			
Metals															
Aluminium	mg/kg	50	15,400	28,000	21,400	19,600	-	21,500	22,700	20,800	22,600	29,500			
Antimony	mg/kg	0.1	7.5	2	0.12	<0.10	-	0.13	<0.10	0.13	0.14	<0.10			
Arsenic	mg/kg	0.1	10	16.8	2.79	2.08	-	2.51	2.24	2.79	2.32	1.98			
Barium	mg/kg	0.5	350	120	40.2	29.4	-	37.8	30.9	35.8	42.6	35.4			
Beryllium	mg/kg	0.1	1	1	0.50	0.43	-	0.45	0.56	0.45	0.47	0.75			
Boron	mg/kg	5	4,300	0.62	<5.0	<5.0	-	<5.0	<5.0	<5.0	<5.0	<5.0			
Cadmium	mg/kg	0.02	1	0.4	0.154	0.140	-	0.235	0.177	0.219	0.116	0.141			
Chromium (Total, III+VI)	mg/kg	0.5	630	81	15.9	15.3	-	19.4	23.9	18.5	22.5	28.0			
Cobalt	mg/kg	0.1	22	26	8.43	7.77	-	11.2	14.2	11.3	9.58	15.2			
Copper	mg/kg	0.5	250	49	14.0	11.2	-	16.0	19.3	15.2	13.3	14.7			
Iron	mg/kg	50	11,000	52,000	31,200	29,200	-	30,400	29,900	28,700	32,400	33,200			
Lead	mg/kg	0.5	120	84	17.5	14.9	-	19.8	14.8	18.0	15.1	11.6			
Manganese	mg/kg	1	360	4340	400	365	-	566	525	524	334	336			
Mercury	mg/kg	0.005	24	0.121	-	-	-	-	-	-	-	-			
Molybdenum	mg/kg	0.1	15	1.1	1.26	1.52	-	1.02	0.87	0.99	1.14	0.74			
Nickel	mg/kg	0.5	70	48	12.8	9.94	-	15.0	19.0	13.9	16.6	27.3			
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-			
Selenium	mg/kg	0.2	1	0.8	0.50	0.37	-	0.50	0.34	0.44	0.50	0.48			
Silver	mg/kg	0.1	77	0.5	<0.10	<0.10	-	<0.10	<0.10	<0.10	<0.10	<0.10			
Strontium	mg/kg	0.5	9,400	5.3	22.2	19.0	-	18.8	21.8	17.9	16.0	13.8			
Sulfur	mg/kg	1000	4000 ²	-	<1,000	<1,000	-	<1,000	<1,000	<1,000	<1,000	<1,000			
Thallium	mg/kg	0.05	1	0.4	0.108	0.090	-	0.124	0.097	0.116	0.128	0.111			
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	-	<2.0	<2.0	<2.0	<2.0	<2.0			
Uranium	mg/kg	0.05	30	1.2	1.86	1.53	-	1.20	1.57	1.16	0.930	1.34			
Vanadium	mg/kg	0.2	39	86	63.1	64.1	-	62.6	61.2	61.4	59.2	54.1			
Zinc	mg/kg	2	200	270	85.2	71.7	-	125	78.3	117	104	111			

Environmental Standards
 Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse
 Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

- Notes:
- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
 - 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
 - 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
 - 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
 - 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
Italics	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location									
					BH25		BH26	BH27	BH28	BH29		BH30		
					Sample ID	Depth	Sample ID	Depth	Sample ID	Depth	Sample ID	Depth	Sample ID	Depth
					Sample Type	Date	Sample Type	Date	Sample Type	Date	Sample Type	Date	Sample Type	Date
					BH25 0-0.15m	BH25 0.44 m	BH26 0-0.15m	BH27 0-0.15m	BH28 0-0.15m	BH29 0-0.15m	25DUP C	BH30 0-0.15m		
					0-0.15m	0.44m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m		
					Normal	Normal	Normal	Normal	Normal	Normal	Duplicate of BH29 (0-0.15m)	Normal		
					02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025	02 Jun 2025		
Particle Size														
% >75µm	%	1	-	-	-	-	-	-	-	-	-	-		
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	-	-	-	-	-	-		
Texture	N/A		-	-	-	-	-	-	-	-	-	-		
Soluble Parameters														
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-		
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-		
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	-		
General Chemistry														
Moisture Content	%	0.25	-	-	-	-	-	-	-	-	-	-		
pH (Lab)	pH Units	0.1	-	-	4.34	-	7.37	-	-	4.64	-	-		
Electrical Conductivity (Lab)	µS/cm	5	-	-	-	-	-	-	-	-	-	-		
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	-		
Metals														
Aluminium	mg/kg	50	15,400	28,000	18,100	33,300	10,300	16,800	9,830	24,200	24,500	22,900		
Antimony	mg/kg	0.1	7.5	2	0.21	0.16	<0.10	<0.10	<0.10	0.13	0.12	0.14		
Arsenic	mg/kg	0.1	10	16.8	2.85	2.68	1.81	2.42	2.34	2.49	2.53	2.73		
Barium	mg/kg	0.5	350	120	33.9	40.2	15.0	28.5	19.9	31.5	32.4	51.9		
Beryllium	mg/kg	0.1	1	1	0.31	0.61	0.54	0.80	0.35	0.55	0.51	0.50		
Boron	mg/kg	5	4,300	0.62	<5.0	<5.0	7.5	9.7	9.1	<5.0	<5.0	<5.0		
Cadmium	mg/kg	0.02	1	0.4	0.146	0.155	0.180	0.243	0.828	0.118	0.129	0.226		
Chromium (Total, III+VI)	mg/kg	0.5	630	81	15.8	24.5	10.2	14.6	10.5	14.8	16.2	15.6		
Cobalt	mg/kg	0.1	22	26	5.33	12.5	7.34	15.3	12.9	7.62	7.63	6.39		
Copper	mg/kg	0.5	250	49	6.48	8.16	60.4	227	453	9.46	9.62	11.2		
Iron	mg/kg	50	11,000	52,000	27,600	34,400	14,800	22,500	10,800	27,900	28,200	26,200		
Lead	mg/kg	0.5	120	84	15.5	10.4	15.6	15.9	37.1	15.8	14.7	14.1		
Manganese	mg/kg	1	360	4340	335	460	625	729	954	391	376	315		
Mercury	mg/kg	0.005	24	0.121	-	-	-	-	-	-	-	-		
Molybdenum	mg/kg	0.1	15	1.1	0.65	0.68	0.53	0.52	0.28	0.70	0.64	0.89		
Nickel	mg/kg	0.5	70	48	7.63	19.1	9.74	24.3	8.15	9.98	10.3	10.4		
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-		
Selenium	mg/kg	0.2	1	0.8	0.64	0.58	<0.20	<0.20	<0.20	0.61	0.67	0.64		
Silver	mg/kg	0.1	77	0.5	<0.10	<0.10	<0.10	<0.10	0.11	<0.10	<0.10	0.10		
Strontium	mg/kg	0.5	9,400	5.3	9.48	10.8	66.3	50.2	126	14.4	12.3	16.0		
Sulfur	mg/kg	1000	4000 ²	-	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000		
Thallium	mg/kg	0.05	1	0.4	0.103	0.084	0.085	0.131	0.101	0.111	0.107	0.113		
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0		
Uranium	mg/kg	0.05	30	1.2	0.977	0.904	1.54	1.56	0.839	1.06	1.08	1.21		
Vanadium	mg/kg	0.2	39	86	64.6	62.8	23.2	35.7	20.6	54.5	55.2	51.8		
Zinc	mg/kg	2	200	270	68.0	122	75.9	83.7	318	59.9	61.5	74.6		

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

Notes:

- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
- 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
- 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
- 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
- 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
<i>Italics</i>	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone	Location								
					BH31	BH32		BH33	BH34	BH35	BH36	BH37	
					Sample ID	BH31 0-0.15m	BH32 0-0.15m	25DUP D	BH33 0-0.15m	BH34 0-0.15m	BH35 0-0.15m	BH36 0-0.15m	BH37 0-0.15m
					Depth	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m
Sample Type	Normal	Normal	Duplicate of BH32 (0-0.15m)	Normal	Normal	Normal	Normal	Normal	Normal				
Date	02 Jun 2025	02 Jun 2025	02 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025				
Particle Size													
% >75µm	%	1	-	-	-	-	-	-	-	-	-	-	
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	-	-	-	-	-	-	
Texture	N/A		-	-	-	-	-	-	-	-	-	-	
Soluble Parameters													
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	-	
General Chemistry													
Moisture Content	%	0.25	-	-	-	-	-	-	-	-	-	-	
pH (Lab)	pH Units	0.1	-	-	-	7.53	7.49	-	-	6.91	-	-	
Electrical Conductivity (Lab)	µS/cm	5	-	-	-	-	-	-	-	-	-	-	
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	-	
Metals													
Aluminium	mg/kg	50	15,400	28,000	9,980	11,300	11,400	34,200	21,100	20,600	21,000	15,300	
Antimony	mg/kg	0.1	7.5	2	<0.10	<0.10	<0.10	0.17	0.16	0.13	0.10	<0.10	
Arsenic	mg/kg	0.1	10	16.8	1.66	1.43	1.26	6.82	4.03	3.10	3.24	2.62	
Barium	mg/kg	0.5	350	120	15.5	13.6	12.5	106	45.0	43.9	40.2	31.6	
Beryllium	mg/kg	0.1	1	1	0.42	0.68	0.64	1.69	1.30	0.80	0.64	1.25	
Boron	mg/kg	5	4,300	0.62	9.1	14.1	12.8	7.6	6.7	5.2	6.6	11.3	
Cadmium	mg/kg	0.02	1	0.4	0.394	0.372	0.336	1.16	1.04	0.197	0.343	0.307	
Chromium (Total, III+VI)	mg/kg	0.5	630	81	9.97	10.2	9.97	28.1	17.1	16.2	23.4	11.1	
Cobalt	mg/kg	0.1	22	26	6.16	6.78	5.71	20.8	8.74	11.9	15.7	11.9	
Copper	mg/kg	0.5	250	49	28.0	32.9	60.8	107	41.2	18.6	134	128	
Iron	mg/kg	50	11,000	52,000	13,500	19,000	14,500	40,000	15,900	26,700	29,700	22,400	
Lead	mg/kg	0.5	120	84	42.3	45.8	41.6	50.3	36.2	13.0	23.0	25.2	
Manganese	mg/kg	1	360	4340	664	648	621	2,080	462	849	733	1,580	
Mercury	mg/kg	0.005	24	0.121	-	-	-	-	-	-	-	-	
Molybdenum	mg/kg	0.1	15	1.1	0.51	0.38	0.32	2.77	3.05	0.82	0.68	0.62	
Nickel	mg/kg	0.5	70	48	8.30	10.9	10.4	28.8	16.2	14.3	22.2	12.8	
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	
Selenium	mg/kg	0.2	1	0.8	<0.20	<0.20	<0.20	2.64	3.40	0.26	0.34	<0.20	
Silver	mg/kg	0.1	77	0.5	<0.10	<0.10	<0.10	0.19	0.12	<0.10	<0.10	<0.10	
Strontium	mg/kg	0.5	9,400	5.3	84.4	89.0	82.6	19.5	30.1	22.3	24.3	81.2	
Sulfur	mg/kg	1000	4000 ²	-	<1,000	<1,000	<1,000	1,200	5,800	<1,000	<1,000	<1,000	
Thallium	mg/kg	0.05	1	0.4	0.083	0.116	0.110	0.377	0.246	0.118	0.139	0.134	
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	mg/kg	0.05	30	1.2	1.41	1.64	2.09	32.9	28.5	2.08	1.47	1.92	
Vanadium	mg/kg	0.2	39	86	23.1	21.1	18.7	60.5	37.3	48.4	53.5	40.8	
Zinc	mg/kg	2	200	270	149	143	132	223	132	69.6	124	115	

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

Notes:

- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
- 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
- 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
- 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
- 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
Italics	Laboratory Detection Limit exceeds the Tier I EQS

Table C-1

					Location	BH38	BH41		BH42	BH43	BH44	BH45	BH46	BH47
					Sample ID	BH38 0-0.15m	BH41 1.5m	25DUP G	BH42 0.45m	BH43 0-0.15m	BH44 0-0.15m	BH45 0-0.15m	BH46 0.70m	BH47 1.35m
					Depth	0-0.15m	1.5m	1.5m	0.45m	0-0.15m	0-0.15m	0-0.15m	0.70m	1.35m
					Sample Type	Normal	Normal	Duplicate of BH41 (1.5m)	Normal	Normal	Normal	Normal	Normal	Normal
					Date	02 Jun 2025	04 Jun 2025	04 Jun 2025	04 Jun 2025	03 Jun 2025	04 Jun 2025	04 Jun 2025	04 Jun 2025	04 Jun 2025
	Unit	EQL	NS Tier I EQS Soil Commercial Potable Fine/Coarse	Environment Canada's Background Soil Database Maximum Concentration for Highlands Soil Zone										
Particle Size														
% >75µm	%	1	-	-	47.4	-	-	-	-	-	-	-	-	-
Sieve Analysis - 75 µm (passing)	%	1	-	-	52.6	-	-	-	-	-	-	-	-	-
Texture	N/A		-	-	Fine	-	-	-	-	-	-	-	-	-
Soluble Parameters														
Soluble Magnesium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Soluble Sodium	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	-	-
Chloride (2:1)	ug/g	5	-	-	-	-	-	-	-	-	-	-	-	-
General Chemistry														
Moisture Content	%	0.25	-	-	-	-	-	-	-	-	-	-	-	-
pH (Lab)	pH Units	0.1	-	-	-	-	-	-	-	-	-	-	-	-
Electrical Conductivity (Lab)	µS/cm	5	-	-	-	-	-	-	-	-	-	-	-	-
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ²	-	-	-	-	-	-	-	-	-	-	-
Metals														
Aluminium	mg/kg	50	15,400	28,000	25,600	29,100	30,300	22,000	19,000	36,100	8,960	21,800	13,500	
Antimony	mg/kg	0.1	7.5	2	0.17	0.10	0.12	0.12	0.12	1.86	5.75	0.10	<0.10	
Arsenic	mg/kg	0.1	10	16.8	4.96	3.42	3.56	3.47	2.64	4.17	65.2	3.00	2.70	
Barium	mg/kg	0.5	350	120	42.4	60.7	62.0	43.0	48.8	125	266	36.5	22.8	
Beryllium	mg/kg	0.1	1	1	0.51	1.76	1.73	2.02	0.73	1.32	0.21	0.70	0.77	
Boron	mg/kg	5	4,300	0.62	<5.0	6.4	7.5	15.3	5.3	<5.0	8.6	6.3	10.5	
Cadmium	mg/kg	0.02	1	0.4	0.196	0.841	0.907	0.326	0.203	0.434	21.6	0.315	0.639	
Chromium (Total, III+VI)	mg/kg	0.5	630	81	21.7	21.9	23.5	15.6	15.0	18.9	89.8	21.2	12.1	
Cobalt	mg/kg	0.1	22	26	8.62	11.5	11.7	15.4	10.8	15.7	29.9	20.5	12.8	
Copper	mg/kg	0.5	250	49	15.1	44.0	44.9	97.0	16.8	19.2	141	80.7	172	
Iron	mg/kg	50	11,000	52,000	31,300	19,300	20,200	30,200	24,800	38,200	330,000	32,300	19,400	
Lead	mg/kg	0.5	120	84	20.7	25.7	27.8	7.92	11.7	362	596	25.6	42.2	
Manganese	mg/kg	1	360	4340	366	538	584	2,850	847	1,350	1,320	717	780	
Mercury	mg/kg	0.005	24	0.121	-	-	-	-	-	-	-	-	-	
Molybdenum	mg/kg	0.1	15	1.1	0.71	1.85	1.89	1.56	0.75	1.82	15.4	0.74	0.78	
Nickel	mg/kg	0.5	70	48	14.9	19.4	20.4	18.5	12.6	19.2	718	24.2	14.4	
Calcium Dissolved	mg/L	0.5	-	-	-	-	-	-	-	-	-	-	-	
Selenium	mg/kg	0.2	1	0.8	0.74	2.52	2.71	<0.20	0.28	1.24	0.46	0.43	<0.20	
Silver	mg/kg	0.1	77	0.5	0.11	0.11	0.11	<0.10	<0.10	0.24	0.13	0.46	0.13	
Strontium	mg/kg	0.5	9,400	5.3	10.3	27.0	29.9	90.2	23.4	23.7	17.9	38.3	84.1	
Sulfur	mg/kg	1000	4000 ²	-	<1,000	4,000	4,100	<1,000	<1,000	<1,000	<1,000	<1,000	1,500	
Thallium	mg/kg	0.05	1	0.4	0.119	0.236	0.248	0.179	0.114	0.183	0.055	0.131	0.164	
Tin	mg/kg	2	9,400	0.7	<2.0	<2.0	<2.0	<2.0	<2.0	59.2	8.8	<2.0	<2.0	
Uranium	mg/kg	0.05	30	1.2	2.54	36.0	35.8	2.60	1.93	2.01	0.399	2.41	2.97	
Vanadium	mg/kg	0.2	39	86	59.2	43.4	46.7	46.5	45.6	43.8	23.1	48.3	29.0	
Zinc	mg/kg	2	200	270	90.8	128	140	83.2	68.7	159	2,140	100	250	

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Environment Canada's Background Soil Database (2004-2009) Maximum Concentration for soil Highlands area of NS.

Notes:

- 1) Background concentrations were only used if a concentration exceeded the Tier I EQS value.
- 2) Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.
- 3) Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.
- 4) Samples collected from boreholes BH39 and BH40 were not analyzed as the targeted depths were not reached at these locations due to refusal. These boreholes/samples were replaced by BH46 and BH47.
- 5) Boreholes BH44 and BH45 were advanced in areas of vehicle debris.

Highlight	Exceeds the NS Tier I EQS
Highlight	Exceeds the NS Tier I EQS and Environment Canada's Background Soil Database (Highlands Maximum)
<i>Italics</i>	Laboratory Detection Limit exceeds the Tier I EQS

Table C-2

	Unit	EQL	NS Tier I EQS Soil Commercial Potable Coarse	NS Tier I EQS Soil Commercial Potable Fine	Field ID	BH1 (0-0.15m)	BH2 (0-0.15m)		BH3 (0-0.15m)	BH4 (0-0.15m)	BH5 (0-0.15m)	BH12 (0-0.15m)	BH13 (0-0.15m)	BH14 (0-0.15m)	BH15 (0-0.15m)		
					Sample Type	Normal	Normal	QAQC 01 Duplicate BH2 (0-0.15m)	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	
					Depth	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m
					Date	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	15 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	
BTEX																	
Benzene	mg/kg	0.005	0.042	0.094	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0057	<0.0050	<0.0050	<0.0050	<0.0050	<0.0088		
Toluene	mg/kg	0.05	0.35	0.74	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
Ethylbenzene	mg/kg	0.015	0.043	0.089	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.015	<0.022		
Xylene (o)	mg/kg	0.03	-	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030		
Xylene (m & p)	mg/kg	0.03	-	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.033		
Xylene Total	mg/kg	0.05	0.73	1.5	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050		
Petroleum Hydrocarbons (PHCs)																	
>C10-C16 fraction of mTPH	%	1	-	-	<1	<1	<1	<1	<1	7	<1	<1	<1	<1	<1		
>C16-C21 fraction of mTPH	%	1	-	-	<1	<1	<1	16	<1	7	21	10	<1	<1	8		
>C21-C32 fraction of mTPH	%	1	-	-	100	<1	<1	84	100	86	79	90	100	100	92		
C6-C10 fraction of mTPH	%	1	-	-	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1		
VPH (C6-C10 - BTEX)	mg/kg	5	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0		
EPH >C10-C16	mg/kg	5	-	-	<5.0	<5.0	<5.0	<5.0	<5.0	10.5	<5.0	<5.0	<5.0	<5.0	<5.0		
EPH >C16-C21	mg/kg	5	-	-	<5.0	<5.0	<5.0	16.7	<5.0	11.6	12.5	11.5	<5.0	<5.0	8.6		
EPH >C21-C32	mg/kg	5	-	-	17.6	<5.0	<5.0	90.1	7.8	136	46.0	108	29.2	29.2	95.3		
Modified TPH (Tier 1)	mg/kg	10	940* 1800** 10,000***	1900* 4700** 10,000***	18***	<10	<10	107	<10	158***	58***	120***	29***	29***	104***		
EPH >C34-C50	mg/kg	20	-	-	25	<20	<20	76	21	312	86	138	50	50	106		
Reached Baseline at C32	-	-	-	-	No	Yes	Yes	No	No	No	No	No	No	No	No		
Hydrocarbon Resemblance	none	-	-	-	LOF	N/A	N/A	NR	LOF	LOF	LOF	LOF	LOF	LOF	LOF		

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Notes:

LOF - Lube Oil Fraction

*Modified TPH (Gasoline)

**Modified TPH (Fuel Oil)

***Modified TPH (Lube Oil)

Highlight	Indicates concentration exceeds Tier I EQS (Coarse-grained)
Highlight	Indicates concentration exceeds Tier I EQS (Fine-grained)

Table C-2

			Field ID		BH44 (0-0.15m)	BH45 (0-0.15m)
			Sample Type		Normal	Normal
			Depth		0-0.15m	0-0.15m
			Date		04 Jun 2024	04 Jun 2024
	Unit	EQL	NS Tier I EQS Soil Commercial Potable Coarse	NS Tier I EQS Soil Commercial Potable Fine		
BTEX						
Benzene	mg/kg	0.005	0.042	0.094	<0.0050	<0.0050
Toluene	mg/kg	0.05	0.35	0.74	<0.050	<0.050
Ethylbenzene	mg/kg	0.015	0.043	0.089	<0.010	<0.010
Xylene (o)	mg/kg	0.03	-	-	-	-
Xylene (m & p)	mg/kg	0.03	-	-	-	-
Xylene Total	mg/kg	0.05	0.73	1.5	<0.050	<0.050
Petroleum Hydrocarbons (PHCs)						
>C10-C16 fraction of mTPH	%	1	-	-	-	-
>C16-C21 fraction of mTPH	%	1	-	-	-	-
>C21-C32 fraction of mTPH	%	1	-	-	-	-
C6-C10 fraction of mTPH	%	1	-	-	-	-
VPH (C6-C10 - BTEX)	mg/kg	5	-	-	<2.5	<2.5
EPH >C10-C16	mg/kg	5	-	-	<10	<10
EPH >C16-C21	mg/kg	5	-	-	41	25
EPH >C21-C32	mg/kg	5	-	-	150	170
Modified TPH (Tier 1)	mg/kg	10	940* 1800** 10,000***	1900* 4700** 10,000***	190**	190**
EPH >C34-C50	mg/kg	20	-	-	-	-
Reached Baseline at C32	-	-	-	-	Yes	Yes
Hydrocarbon Resemblance	none	-	-	-	Unidentified Compound in Fuel/Lube Range. Possible LOF	Unidentified Compound in Fuel/Lube Range. Possible LOF

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Soil Commercial Potable Coarse

Notes:

LOF - Lube Oil Fraction

*Modified TPH (Gasoline)

**Modified TPH (Fuel Oil)

***Modified TPH (Lube Oil)

Highlight	Indicates concentration exceeds Tier I EQS (Coarse-grained)
Highlight	Indicates concentration exceeds Tier I EQS (Fine-grained)

Table C-3

Sample ID	Sample Type	Date	NS Tier I EQS Freshwater Surface Water	SW1	SW3	SW4	SW5	SW6		SW7	SW8	SW9	SW10	SW11	SW12	SW13		
				Normal	Normal	Normal	Normal	Normal	QAQC 03	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
				17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	03 Jun 2025	03 Jun 2025	03 Jun 2025
	Unit	EOL																
Calculated Parameters																		
Anions Total	meq/L	0.1	-	4.37	3.76	3.22	3.73	3.40	3.41	3.15	3.85	3.36	2.56	2.27	2.35	2.25		
Cations Total	meq/L	0.1	-	4.54	3.80	3.26	3.91	3.54	3.47	3.25	4.42	3.50	2.67	2.28	2.35	2.22		
Ionic Balance	%	0.01	-	104	101	101	105	104	102	103	115	104	104	100	100	98.7		
Langelier Index (@ 20C)	N/A	0.01	-	0.867	0.260	0.197	0.223	0.240	0.389	-0.392	-0.034	0.061	-0.473	-0.429	-0.110	-0.286		
Langelier Index (@ 4C)	N/A	0.01	-	0.621	0.011	-0.051	-0.028	-0.009	0.142	-0.643	-0.285	-0.188	-0.724	-0.681	-0.362	-0.535		
Saturation @ 4c	-	0.01	-	7.72	7.93	8.10	7.91	7.99	8.00	8.10	7.78	8.09	8.22	8.27	8.25	8.24		
Saturation pH (@ 20C)	N/A	0.01	-	7.47	7.68	7.85	7.66	7.74	7.75	7.85	7.53	7.84	7.97	8.02	8.00	8.00		
NA																		
Colour, Apparent	CU	2	-	3.6	6.6	3.4	8.1	4.1	5.7	4.6	73.8	<2.0	8.0	17.8	16.5	22.2		
General Chemistry																		
Carbonate	mg/L	1	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.6	<0.6	<0.6		
Alkalinity (total)	mg/L	1	-	167	127	109	126	119	120	106	157	111	89.3	90.0	91.6	91.7		
Bicarbonate	mg/L	1	-	203	155	133	153	145	147	130	192	135	109	110	112	112		
Hardness as CaCO3 (Measured)	mg/L	0.5	-	205	163	125	170	148	145	125	177	125	108	93.3	96.0	93.7		
Ammonia as N	mg/L	0.005	Calculated Value ¹	0.0239	0.0089	0.0182	0.0061	0.0112	0.0079	0.0113	0.0233	0.0212	0.0124	0.0106	0.0450	0.0066		
Total Organic Carbon (TOC)	mg/L	0.5	-	1.98	2.37	1.74	2.75	1.46	1.98	1.50	9.11	1.28	2.86	3.07	2.72	3.92		
Ortho Phosphate as P (filtered)	mg/L	0.001	-	0.0013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Fluoride	mg/L	0.02	-	<0.020	0.025	0.045	0.026	0.039	0.037	0.041	0.053	0.053	0.026	0.050	0.048	0.044		
Chloride	mg/L	0.5	120	22.6	30.1	26.2	29.1	25.4	25.4	26.0	19.8	29.9	18.0	11.0	11.7	9.49		
Hydroxide	mg/L	1	-	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.3	<0.3	<0.3		
Nitrate (as N)	mg/L	0.02	13	0.586	<0.020	0.116	<0.020	0.092	0.092	0.126	<0.020	0.181	0.207	<0.020	<0.020	<0.020		
Nitrite (as N)+C31	mg/L	0.01	0.06	<0.010	<0.010	<0.010	<0.010	0.012	0.011	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Nitrite + Nitrate as N	mg/L	0.0224	-	0.586	<0.0224	0.116	<0.0224	0.104	0.103	0.126	<0.0224	0.181	0.207	<0.0224	<0.0224	<0.0224		
pH (Lab)	pH Units	0.1	6.5-9	8.34	7.94	8.05	7.88	7.98	8.14	7.46	7.50	7.90	7.50	7.59	7.89	7.71		
Electrical Conductivity (Lab)	µS/cm	1	-	419	374	324	379	336	338	317	373	333	256	216	222	210		
Sulphate	mg/L	0.3	128	17.2	18.1	13.8	18.8	14.0	13.9	13.9	7.10	13.6	12.3	7.77	8.84	7.19		
Total Dissolved Solids (TDS) - Measured	mg/L	20	-	240	224	180	229	192	195	166	209	188	148	128	132	96		
Turbidity	NTU	0.1	-	<0.10	0.28	0.32	0.20	0.30	0.19	0.25	11.8	0.13	0.26	0.86	0.77	0.99		
Metals																		
Aluminium	mg/L	0.003	0.005	0.0262	0.0102	0.0109	0.0165	0.0122	0.0085	0.0143	0.361	0.0117	0.0195	0.0734	0.0290	0.0112		
Antimony	mg/L	0.0001	0.009	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		
Arsenic	mg/L	0.0001	0.005	0.00011	0.00014	0.00013	0.00013	0.00013	0.00011	0.00013	0.00043	0.00026	<0.00010	0.00015	0.00015	0.00017		
Barium	mg/L	0.0001	1	0.0151	0.00811	0.00959	0.0108	0.00747	0.00719	0.00949	0.0194	0.0150	0.00657	0.00783	0.00722	0.0102		
Beryllium	mg/L	0.00002	0.00015	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000025	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020		
Bismuth	mg/L	0.00005	-	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050		
Boron	mg/L	0.01	1.5	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010		
Cadmium	mg/L	0.000005	0.00009	0.0000071	<0.0000050	<0.0000050	<0.0000050	0.0000056	<0.0000050	<0.0000050	0.0000203	<0.0000050	0.0000161	<0.0000050	<0.0000050	<0.0000050		
Chromium (Total, III+VI)	mg/L	0.0005	0.0089	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00064	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
Cobalt	mg/L	0.0001	0.001	<0.00010	<0.00010	<0.00010	<0.00010	0.00014	0.00013	<0.00010	0.00057	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		
Copper	mg/L	0.0005	0.002	0.00099	0.00084	<0.00050	0.00091	<0.00050	<0.00050	<0.00050	0.00229	<0.00050	0.00057	0.00095	0.00066	<0.00050		
Iron	mg/L	0.01	0.3	0.025	0.056	0.132	0.036	0.296	0.262	0.115	7.22	0.014	0.013	0.546	0.221	0.331		
Lead	mg/L	0.00005	0.001	<0.000050	<0.000050	<0.000050	0.000063	<0.000050	<0.000050	<0.000050	0.000975	<0.000050	0.000090	0.000140	0.000060	0.000064		
Magnesium	mg/L	0.005	-	18.2	14.6	11.4	14.6	11.3	13.0	11.3	15.1	11.0	9.38	7.92	8.10	8.02		
Manganese	mg/L	0.0001	0.43	0.00706	0.0199	0.0466	0.00439	0.164	0.151	0.0420	1.15	0.00539	0.00276	0.0859	0.0720	0.101		
Mercury	mg/L	0.000005	0.000026	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	-	-	-		
Molybdenum	mg/L	0.00005	0.073	0.000306	0.000514	0.000442	0.000580	0.000653	0.000667	0.000444	0.000314	0.000424	0.000502	0.000414	0.000476	0.000496		
Nickel	mg/L	0.0005	0.025	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00054	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050		
Silica (SiO2)	mg/L	0.21	-	7.25	6.57	5.99	6.22	6.54	6.54	9.50	6.29	6.03	6.03	2.46	2.91	2.22		
Calcium Dissolved	mg/L	0.1	-	52.0	41.4	31.3	44.0	37.5	36.5	31.5	45.9	31.8	27.8	-	-	-		
Calcium, Total	mg/L													24.3	25.1	24.3		
Potassium	mg/L	0.05	-	0.958	1.12	0.796	1.22	1.18	1.16	0.800	0.974	0.779	0.758	0.534	0.580	0.541		
Selenium	mg/L	0.00005	0.001	<0.000050	<0.000050	0.000066	<0.000050	0.000054	0.000054	0.000080	0.000082	0.000082	0.000060	0.000060	0.000076	0.000052		
Cesium	mg/L	0.00001	-	<0.000010	<0.000010	<0.000010	<0.000010	0.000010	0.000010	<0.000010	0.000064	<0.000010	<0.000010	0.000014	<0.000010	<0.000010		
Rubidium	mg/L	0.0002	-	0.00223	0.00217	0.00140	0.00218	0.00229	0.00232	0.00153	0.00219	0.00137	0.00155	0.00120	0.00124	0.00118		
Tellurium	mg/L	0.0002	-	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020		
Thorium	mg/L	0.0001	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		
Tungsten	mg/L	0.0001	-	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010		
Lithium	mg/L	0.001	-	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010		
Silver	mg/L	0.00001	0.00025	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010		
Silicon	mg/L	0.1	-	3.39	3.07	2.80	2.91	3.06	3.06	2.84	4.44	2.94	2.82	1.15	1.36	1.04		
Sodium	mg/L	0.05	-	9.63	11.4	16.9	11.0	12.4	12.3	16.6	12.0	12.7	11.2	8.58	9.21	7.30		
Strontium	mg/L	0.0002	21	0.0876	0.0572	0.0442	0.0580	0.0464	0.0464	0.0448	0.0601	0.0476	0.0403	0.0401	0.0394	0.0410		
Sulphur as S	mg/L	0.5	-	6.03	6.40	4.94	6.99	5.14	5.00	5.00	2.62	5.11	4.39	2.81	3.16	2.62		
Titanium	mg/L	0.0003	-	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	0.00912	<0.00030	<0.00030	0.00173	0.00069	<0.00030		
Thallium	mg/L</																	

Table C-3



	Unit	EOL	NS Tier I EQS Freshwater Surface Water	Sample ID	SW15		SW16	
				Sample Type	Normal	Normal	25 DUP F	Normal
				Date	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025
Calculated Parameters								
Anions Total	meq/L	0.1	-	2.99	2.48	2.73	3.37	
Cations Total	meq/L	0.1	-	3.06	2.73	2.70	3.47	
Ionic Balance	%	0.01	-	102	110	98.9	103	
Langelier Index (@ 20C)	N/A	0.01	-	0.353	0.006	-0.029	0.370	
Langelier Index (@ 4C)	N/A	0.01	-	0.105	-0.243	-0.278	0.122	
Saturation @ 4c	-	0.01	-	7.97	8.18	8.13	7.88	
Saturation pH (@ 20C)	N/A	0.01	-	7.73	7.93	7.88	7.63	
NA								
Colour, Apparent	CU	2	-	7.6	7.7	10.4	2.7	
General Chemistry								
Carbonate	mg/L	1	-	<0.6	<0.6	<0.6	<0.6	
Alkalinity (total)	mg/L	1	-	134	90.1	103	153	
Bicarbonate	mg/L	1	-	163	110	126	187	
Hardness as CaCO3 (Measured)	mg/L	0.5	-	144	112	111	166	
Ammonia as N	mg/L	0.005	Calculated Value ¹	0.0133	<0.0050	0.0075	<0.0050	
Total Organic Carbon (TOC)	mg/L	0.5	-	1.54	1.23	1.08	<0.50	
Ortho Phosphate as P (filtered)	mg/L	0.001	-	<0.0010	<0.0010	<0.0010	<0.0010	
Fluoride	mg/L	0.02	-	0.032	0.051	0.050	0.034	
Chloride	mg/L	0.5	120	6.24	14.6	14.6	6.15	
Hydroxide	mg/L	1	-	<0.3	<0.3	<0.3	<0.3	
Nitrate (as N)	mg/L	0.02	13	<0.020	0.079	0.074	<0.020	
Nitrite (as N)+C31	mg/L	0.01	0.06	<0.010	<0.010	<0.010	<0.010	
Nitrite + Nitrate as N	mg/L	0.0224	-	<0.0224	0.0790	0.0740	<0.0224	
pH (Lab)	pH Units	0.1	6.5-9	8.08	7.94	7.85	8.00	
Electrical Conductivity (Lab)	µS/cm	1	-	274	263	259	310	
Sulphate	mg/L	0.3	128	6.44	12.3	12.3	6.82	
Total Dissolved Solids (TDS) - Measured	mg/L	20	-	144	142	139	163	
Turbidity	NTU	0.1	-	0.31	0.11	<0.10	<0.10	
Metals								
Aluminium	mg/L	0.003	0.005	0.0366	0.0080	0.0118	<0.0030	
Antimony	mg/L	0.0001	0.009	<0.00010	<0.00010	<0.00010	<0.00010	
Arsenic	mg/L	0.0001	0.005	<0.00010	<0.00010	<0.00010	<0.00010	
Barium	mg/L	0.0001	1	0.0498	0.00600	0.00597	0.0644	
Beryllium	mg/L	0.00002	0.00015	<0.000020	<0.000020	<0.000020	<0.000020	
Bismuth	mg/L	0.00005	-	<0.000050	<0.000050	<0.000050	<0.000050	
Boron	mg/L	0.01	1.5	<0.010	<0.010	<0.010	<0.010	
Cadmium	mg/L	0.000005	0.00009	0.0000152	<0.0000050	0.0000050	0.0000219	
Chromium (Total, III+VI)	mg/L	0.0005	0.0089	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt	mg/L	0.0001	0.001	<0.00010	<0.00010	<0.00010	<0.00010	
Copper	mg/L	0.0005	0.002	0.00054	0.00053	0.00056	0.00067	
Iron	mg/L	0.01	0.3	0.041	<0.010	0.014	<0.010	
Lead	mg/L	0.00005	0.001	<0.000050	<0.000050	<0.000050	<0.000050	
Magnesium	mg/L	0.005	-	14.9	8.97	8.85	18.0	
Manganese	mg/L	0.0001	0.43	0.00652	0.00188	0.00210	<0.00010	
Mercury	mg/L	0.000005	0.000026	-	-	-	-	
Molybdenum	mg/L	0.00005	0.073	0.000376	0.000428	0.000434	0.000318	
Nickel	mg/L	0.0005	0.025	<0.00050	<0.00050	<0.00050	<0.00050	
Silica (SiO2)	mg/L	0.21	-	5.24	5.56	5.52	5.71	
Calcium Dissolved	mg/L	0.1	-	-	-	-	-	
Calcium, Total	mg/L	-	-	32.9	30.2	29.8	36.6	
Potassium	mg/L	0.05	-	0.567	0.664	0.656	0.622	
Selenium	mg/L	0.00005	0.001	0.000077	0.000069	0.000099	0.000119	
Cesium	mg/L	0.00001	-	0.000012	<0.000010	<0.000010	0.000015	
Rubidium	mg/L	0.0002	-	0.00143	0.00126	0.00130	0.00147	
Tellurium	mg/L	0.0002	-	<0.00020	<0.00020	<0.00020	<0.00020	
Thorium	mg/L	0.0001	-	<0.00010	<0.00010	<0.00010	<0.00010	
Tungsten	mg/L	0.0001	-	<0.00010	<0.00010	<0.00010	<0.00010	
Lithium	mg/L	0.001	-	<0.0010	<0.0010	<0.0010	<0.0010	
Silver	mg/L	0.00001	0.00025	<0.000010	<0.000010	<0.000010	<0.000010	
Silicon	mg/L	0.1	-	2.45	2.60	2.58	2.67	
Sodium	mg/L	0.05	-	3.85	10.8	10.8	3.43	
Strontium	mg/L	0.0002	21	0.0299	0.0380	0.0375	0.0268	
Sulphur as S	mg/L	0.5	-	2.22	4.45	4.30	2.39	
Titanium	mg/L	0.0003	-	0.00117	<0.00030	<0.00030	<0.00030	
Thallium	mg/L	0.00001	0.0008	<0.000010	<0.000010	<0.000010	<0.000010	
Tin	mg/L	0.0001	-	<0.00010	<0.00010	<0.00010	<0.00010	
Uranium	mg/L	0.00001	0.015	0.00194	0.00202	0.00197	0.00239	
Vanadium	mg/L	0.0005	0.12	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc	mg/L	0.003	0.007	<0.0030	<0.0030	<0.0030	0.0068	
Zirconium	mg/L	0.0002	-	<0.00020	<0.00020	<0.00020	<0.00020	
Phosphorus	mg/L	0.05	-	<0.050	<0.050	<0.050	<0.050	

Environmental Standards

Nova Scotia Environment, September 2021, NS Tier I EQS Freshwater Surface Water

¹ Calculated guideline dependant on pH and temperature

Highlight Indicates concentration exceeds Tier I EQS

Table C4

	Unit	EQL	Sample ID Sample Type Depth Date	SED1	SED3	SED4	SED5	SED6	SED7	SED8	SED9	
				Normal	Normal	QAQC 04	Normal	Normal	Normal	Normal	Normal	Normal
				0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m
				17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024	17 Oct 2024
			NS Tier I EQS Freshwater Sediment									
Particle Size												
% >75µm	%	1	-	-	-	-	-	-	-	-	-	
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	-	-	-	-	-	
Grain Size	%		-	-	-	-	-	-	-	-	-	
Organic Matter	%	0.17	-	-	-	-	-	-	-	-	-	
Soluble Parameters												
Soluble Magnesium	mg/L	0.5	-	-	1.14	1.24	-	-	-	-	-	
Soluble Sodium	mg/L	0.5	-	-	0.65	0.85	-	-	-	-	-	
Chloride (2:1)	ug/g	5	-	-	9.5	8.5	-	-	-	-	-	
General Chemistry												
Moisture Content	%	0.25	-	-	11.4	-	-	-	-	13.6	-	
pH (Lab)	pH Units	0.1	-	6.90	7.51	7.61	6.43	7.01	7.17	7.09	6.38	
Electrical Conductivity (Lab)	µS/cm	5	-	-	94.1	103	-	-	-	-	-	
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ¹	-	<0.10	0.12	-	-	-	-	-	
Total Organic Carbon (TOC)	mg/kg	1,000	-	-	-	-	-	-	-	-	-	
Metals												
Aluminium	mg/kg	50	-	14,900	4,260	5,500	11,800	11,700	6,980	5,750	27,000	
Antimony	mg/kg	0.1	25	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.16	
Arsenic	mg/kg	0.1	17	1.96	2.32	0.64	2.14	2.09	0.93	1.10	4.92	
Barium	mg/kg	0.5	-	22.8	7.78	7.34	22.4	26.4	9.26	13.4	55.2	
Beryllium	mg/kg	0.1	-	0.64	0.21	0.21	0.66	0.62	0.34	0.28	1.31	
Boron	mg/kg	5	-	<5.0	<5.0	<5.0	9.3	10.6	6.1	5.4	13.4	
Cadmium	mg/kg	0.02	3.5	0.121	0.107	0.071	0.198	0.424	0.097	0.146	1.06	
Chromium (Total, III+VI)	mg/kg	0.5	90	9.55	4.35	5.02	10.8	11.4	8.29	8.43	26.8	
Cobalt	mg/kg	0.1	-	6.53	3.64	2.26	6.81	7.60	4.38	3.52	18.5	
Copper	mg/kg	0.5	197	24.2	14.2	5.10	43.4	32.2	25.3	13.0	84.7	
Iron	mg/kg	50	43,766	25,800	8,780	7,920	17,600	14,200	12,700	13,900	27,200	
Lead	mg/kg	0.5	91.3	7.50	11.2	27.9	14.3	40.5	5.71	11.5	116	
Manganese	mg/kg	1	1,100	343	486	422	934	1,010	771	822	1,390	
Mercury	mg/kg	0.005	0.486	<0.0050	<0.0050	<0.0050	0.0272	0.0122	0.0062	0.0058	0.0418	
Molybdenum	mg/kg	0.1	-	0.87	0.22	0.19	0.40	0.44	0.48	2.88	1.55	
Nickel	mg/kg	0.5	75	8.96	4.08	3.28	8.82	10.7	6.41	5.21	28.6	
Calcium Dissolved	mg/L	0.5	-	-	1.50	1.71	-	-	-	-	-	
Selenium	mg/kg	0.2	2	<0.20	<0.20	<0.20	0.34	<0.20	<0.20	<0.20	0.32	
Silver	mg/kg	0.1	0.5	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	
Strontium	mg/kg	0.5	-	17.5	76.9	71.3	67.4	65.6	64.8	76.8	42.4	
Sulphur	mg/kg	1,000	4000 ²	<1000	<1000	<1000	<1000	<1000	<1000	<1000	5,500	
Thallium	mg/kg	0.05	-	<0.050	<0.050	<0.050	0.064	0.108	<0.050	<0.050	0.286	
Tin	mg/kg	2	-	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	mg/kg	0.05	-	1.95	0.868	1.19	1.97	2.33	0.729	1.05	5.63	
Vanadium	mg/kg	0.2	-	35.8	12.5	12.7	28.2	26.2	17.1	13.8	57.4	
Zinc	mg/kg	2	315	40.9	45.5	28.6	86.0	154	40.8	49.3	406	

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Freshwater Sediment

1 Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.

2 Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.

Highlight

Indicates concentration exceeds Tier I EQS Freshwater Sediment

Table C4

	Sample ID	Sample Type	Depth	Date	SED10	SED11	SED12	SED13	SED14		SED15	SED16	SED17	SED18		
					Normal	Normal	Normal	Normal	Normal	25DUP E	Normal	Normal	Normal	Normal		
					0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m	0-0.15m
					17 Oct 2024	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	03 Jun 2025	04 Jun 2025	04 Jun 2025
	Unit	EQL	NS Tier I EQS Freshwater Sediment													
Particle Size																
% >75um	%	1	-	-	-	-	<1.0	-	-	95.5	-	-	-	-		
Sieve Analysis - 75 µm (passing)	%	1	-	-	-	-	100	-	-	4.5	-	-	-	-		
Grain Size	%						Fine			Coarse						
Organic Matter	%	0.17	-	-	4.31	14.5	12.9	2.31	2.29	1.05	5.86	0.96	2.93			
Soluble Parameters																
Soluble Magnesium	mg/L	0.5	-	4.66	-	-	-	-	-	-	-	-	-	-		
Soluble Sodium	mg/L	0.5	-	7.95	-	-	-	-	-	-	-	-	-	-		
Chloride (2:1)	ug/g	5	-	33.8	-	-	-	-	-	-	-	-	-	-		
General Chemistry																
Moisture Content	%	0.25	-	-	-	-	-	-	-	-	-	-	-	-		
pH (Lab)	pH Units	0.1	-	6.97	-	-	-	-	-	-	-	-	-	-		
Electrical Conductivity (Lab)	µS/cm	5	-	298	-	-	-	-	-	-	-	-	-	-		
Sodium Adsorption Ratio (SAR)	SAR	0.1	12 ¹	0.49	-	-	-	-	-	-	-	-	-	-		
Total Organic Carbon (TOC)	mg/kg	1,000	-	-	25,000	83,900	74,600	13,400	13,300	6,100	34,000	5,600	17,000			
Metals																
Aluminium	mg/kg	50	-	13,400	30,000	10,400	15,600	14,900	15,200	15,000	12,400	15,200	18,900			
Antimony	mg/kg	0.1	25	<0.10	0.19	<0.15	0.16	<0.10	<0.10	<0.10	<0.10	<0.10	0.14			
Arsenic	mg/kg	0.1	17	2.32	4.88	1.54	3.18	1.80	1.68	1.74	1.98	3.12	4.32			
Barium	mg/kg	0.5	-	23.0	66.0	50.5	76.3	72.0	68.8	18.2	96.4	27.8	50.9			
Beryllium	mg/kg	0.1	-	0.64	1.61	0.60	0.88	0.58	0.58	0.86	0.40	0.51	0.72			
Boron	mg/kg	5	-	7.5	9.3	<7.5	<7.4	<5.0	<5.0	<5.0	5.3	<5.0	<5.0			
Cadmium	mg/kg	0.02	3.5	0.304	0.545	0.417	0.567	0.211	0.220	0.082	0.647	0.117	0.187			
Chromium (Total, III+VI)	mg/kg	0.5	90	11.6	26.6	8.47	13.2	12.3	12.3	9.44	15.5	15.3	20.0			
Cobalt	mg/kg	0.1	-	8.60	20.0	6.39	9.73	8.86	8.51	7.15	6.82	8.70	12.0			
Copper	mg/kg	0.5	197	50.2	68.0	34.2	47.8	14.2	19.1	17.8	432	11.5	15.6			
Iron	mg/kg	50	43,766	20,200	39,400	11,200	15,400	22,200	22,200	24,300	16,900	24,300	30,400			
Lead	mg/kg	0.5	91.3	18.8	56.2	9.80	31.6	7.77	9.52	3.86	11.1	5.94	11.0			
Manganese	mg/kg	1	1,100	836	1,470	300	300	612	604	475	455	502	802			
Mercury	mg/kg	0.005	0.486	0.0181	-	-	-	-	-	-	-	-	-			
Molybdenum	mg/kg	0.1	-	0.83	1.55	2.44	1.93	0.42	0.40	0.21	0.45	0.57	0.77			
Nickel	mg/kg	0.5	75	11.1	29.0	8.33	14.1	11.0	10.5	10.5	8.91	10.3	19.2			
Calcium Dissolved	mg/L	0.5	-	12.1	-	-	-	-	-	-	-	-	-			
Selenium	mg/kg	0.2	2	0.33	0.54	1.42	1.21	0.27	0.22	<0.20	1.20	<0.20	0.30			
Silver	mg/kg	0.1	0.5	0.17	<0.10	<0.15	<0.15	<0.10	<0.10	<0.10	0.12	<0.10	<0.10			
Strontium	mg/kg	0.5	-	67.7	32.0	12.0	12.1	19.9	20.9	19.7	19.0	20.9	22.5			
Sulphur	mg/kg	1,000	4000 ²	<1000	<1,000	7,000	3,300	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000			
Thallium	mg/kg	0.05	-	0.095	0.273	0.089	0.157	0.078	0.080	0.052	0.158	0.062	0.090			
Tin	mg/kg	2	-	<2.0	<2.0	<3.0	<3.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0			
Uranium	mg/kg	0.05	-	3.67	4.83	16.4	13.1	1.58	2.23	1.23	3.93	1.34	2.58			
Vanadium	mg/kg	0.2	-	29.6	65.9	25.8	33.0	39.0	40.1	36.6	36.1	38.8	48.7			
Zinc	mg/kg	2	315	90.1	203	90.4	165	94.6	94.5	43.6	489	43.5	60.8			

Environmental Standards

Nova Scotia Environment, October 2022, NS Tier I EQS Freshwater Sediment

1 Comparison value is taken from the CCME Soil Quality Guidelines for the Protection of Environmental and Human Health, Commercial receptor, 1991.

2 Comparison value is taken from the Sulphide Bearing Material Disposal Regulations under Section 66 of the Environment Act, April 11, 1995.

Highlight Indicates concentration exceeds Tier I EQS Freshwater Sediment

Table C5

			Location Code	BH23	25 DUP B					
			Sample Type	Normal	Field Duplicate	5 x the RDL	Absolute Difference b/w Parent and Duplicate	2 x the RDL	Relative Percent Difference	QC Result
			Date	02 Jun 2025	02 Jun 2025					
	Unit	RDL								
Metals										
Aluminium	mg/kg	50	21,500	22,700	250	Both Samples >5x RDL	Not Calculated	5%	Acceptable	
Antimony	mg/kg	0	0.13	<0.10	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	
Arsenic	mg/kg	0	2.51	2.24	0.5	Both Samples >5x RDL	Not Calculated	11%	Acceptable	
Barium	mg/kg	1	37.8	30.9	2.5	Both Samples >5x RDL	Not Calculated	20%	Acceptable	
Beryllium	mg/kg	0	0.45	0.56	0.5	0.11	0.2	Not Calculated	Acceptable	
Boron	mg/kg	5	<5.0	<5.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	
Cadmium	mg/kg	0	0.235	0.177	0.1	Both Samples >5x RDL	Not Calculated	28%	Acceptable	
Chromium (Total, III+VI)	mg/kg	0.5	19.4	23.9	2.5	Both Samples >5x RDL	Not Calculated	21%	Acceptable	
Cobalt	mg/kg	0	11.2	14.2	0.5	Both Samples >5x RDL	Not Calculated	24%	Acceptable	
Copper	mg/kg	1	16	19.3	2.5	Both Samples >5x RDL	Not Calculated	19%	Acceptable	
Iron	mg/kg	50	30,400	29,900	250	Both Samples >5x RDL	Not Calculated	2%	Acceptable	
Lead	mg/kg	1	19.8	14.8	2.5	Both Samples >5x RDL	Not Calculated	29%	Acceptable	
Manganese	mg/kg	1.0	566	525	5	Both Samples >5x RDL	Not Calculated	8%	Acceptable	
Molybdenum	mg/kg	0	1.02	0.87	0.5	Both Samples >5x RDL	Not Calculated	16%	Acceptable	
Nickel	mg/kg	1	15	19	2.5	Both Samples >5x RDL	Not Calculated	24%	Acceptable	
Selenium	mg/kg	0	0.5	0.34	1	0.16	0.4	Not Calculated	Acceptable	
Silver	mg/kg	0	<0.10	<0.10	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	
Strontium	mg/kg	0.5	18.8	21.8	2.5	Both Samples >5x RDL	Not Calculated	15%	Acceptable	
Sulfur	mg/kg	1,000	<1,000	<1,000	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	
Thallium	mg/kg	0	0.124	0.097	0.25	0.027	0.1	Not Calculated	Acceptable	
Tin	mg/kg	2.0	<2.0	<2.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated	
Uranium	mg/kg	0	1.2	1.57	0.25	Both Samples >5x RDL	Not Calculated	27%	Acceptable	
Vanadium	mg/kg	0.2	62.6	61.2	1	Both Samples >5x RDL	Not Calculated	2%	Acceptable	
Zinc	mg/kg	2	125	78.3	10	Both Samples >5x RDL	Not Calculated	46%	Acceptable	

Comments:

Where either parent and field duplicate sample concentrations are less than 5X the RDL, then the absolute difference in values is shown. The difference is acceptable if it is less than 2X the RDL.

Relative percent difference (RPD) is only considered where parent and duplicate sample concentrations are both greater than 5X the RDL. The RPD is considered acceptable if it is within the industry accepted ranges for metals in soil (as detailed in the report).

$$RPD = ((\text{parent result} - \text{duplicate result}) / ((\text{parent result} + \text{duplicate result}) / 2)) * 100$$

QC calculations and results have been evaluated in accordance of the Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (CCME, 2016).

BOLD value indicates the value which the acceptance criteria is based on (i.e. absolute difference or RPD).

Table C5

			Location Code						
			BH29	25 DUP C					
			Normal	Field Duplicate	5 x the RDL	Absolute Difference b/w Parent and Duplicate	2 x the RDL	Relative Percent Difference	QC Result
			02 Jun 2025	02 Jun 2025					
	Unit	RDL							
Metals									
Aluminium	mg/kg	50	24,200	24,500	250	Both Samples >5x RDL	Not Calculated	1%	Acceptable
Antimony	mg/kg	0	0.13	0.12	0.5	0.01	0.2	Not Calculated	Acceptable
Arsenic	mg/kg	0	2.49	2.53	0.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Barium	mg/kg	1	31.5	32.4	2.5	Both Samples >5x RDL	Not Calculated	3%	Acceptable
Beryllium	mg/kg	0	0.55	0.51	0.5	Both Samples >5x RDL	Not Calculated	8%	Acceptable
Boron	mg/kg	5	<5.0	<5.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Cadmium	mg/kg	0	0.118	0.129	0.1	Both Samples >5x RDL	Not Calculated	9%	Acceptable
Chromium (Total, III+VI)	mg/kg	0.5	14.8	16.2	2.5	Both Samples >5x RDL	Not Calculated	9%	Acceptable
Cobalt	mg/kg	0	7.62	7.63	0.5	Both Samples >5x RDL	Not Calculated	0%	Acceptable
Copper	mg/kg	1	9.46	9.62	2.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Iron	mg/kg	50	27,900	28,200	250	Both Samples >5x RDL	Not Calculated	1%	Acceptable
Lead	mg/kg	1	15.8	14.7	2.5	Both Samples >5x RDL	Not Calculated	7%	Acceptable
Manganese	mg/kg	1.0	391	376	5	Both Samples >5x RDL	Not Calculated	4%	Acceptable
Molybdenum	mg/kg	0	0.7	0.64	0.5	Both Samples >5x RDL	Not Calculated	9%	Acceptable
Nickel	mg/kg	1	9.98	10.3	2.5	Both Samples >5x RDL	Not Calculated	3%	Acceptable
Selenium	mg/kg	0	0.61	0.67	1	0.06	0.4	Not Calculated	Acceptable
Silver	mg/kg	0	<0.10	<0.10	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Strontium	mg/kg	0.5	14.4	12.3	2.5	Both Samples >5x RDL	Not Calculated	16%	Acceptable
Sulfur	mg/kg	1,000	<1,000	<1,000	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Thallium	mg/kg	0	0.111	0.107	0.25	0.004	0.1	Not Calculated	Acceptable
Tin	mg/kg	2.0	<2.0	<2.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Uranium	mg/kg	0	1.06	1.08	0.25	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Vanadium	mg/kg	0.2	54.5	55.2	1	Both Samples >5x RDL	Not Calculated	1%	Acceptable
Zinc	mg/kg	2	59.9	61.5	10	Both Samples >5x RDL	Not Calculated	3%	Acceptable

Comments:

Where either parent and field duplicate sample concentrations are less than 5X the RDL, then the absolute difference in values is shown. The difference is acceptable if it is less than 2X the RDL.

Relative percent difference (RPD) is only considered where parent and duplicate sample concentrations are both greater than 5X the RDL. The RPD is considered acceptable if it is within the industry accepted ranges for metals in soil (as detailed in the report).

$$RPD = \frac{(\text{parent result} - \text{duplicate result})}{((\text{parent result} + \text{duplicate result})/2)} * 100$$

QC calculations and results have been evaluated in accordance of the Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (CCME, 2016).

BOLD value indicates the value which the acceptance criteria is based on (i.e. absolute difference or RPD).

Table C5

			Location Code									
			BH32	25 DUP D								
			Normal	Field Duplicate	5 x the RDL		Absolute Difference b/w Parent and Duplicate		2 x the RDL		Relative Percent Difference	
			02 Jun 2025	02 Jun 2025								
	Unit	RDL										
Metals												
Aluminium	mg/kg	50	11,300	11,400	250	Both Samples >5x RDL		Not Calculated		1%		Acceptable
Antimony	mg/kg	0	<0.10	<0.10	Not Calculated		Not Calculated		Not Calculated		Not Calculated	
Arsenic	mg/kg	0	1.43	1.26	0.5	Both Samples >5x RDL		Not Calculated		13%		Acceptable
Barium	mg/kg	1	13.6	12.5	2.5	Both Samples >5x RDL		Not Calculated		8%		Acceptable
Beryllium	mg/kg	0	0.68	0.64	0.5	Both Samples >5x RDL		Not Calculated		6%		Acceptable
Boron	mg/kg	5	14.1	12.8	25	1.3		10		Not Calculated		Acceptable
Cadmium	mg/kg	0	0.372	0.336	0.1	Both Samples >5x RDL		Not Calculated		10%		Acceptable
Chromium (Total, III+VI)	mg/kg	0.5	10.2	9.97	2.5	Both Samples >5x RDL		Not Calculated		2%		Acceptable
Cobalt	mg/kg	0	6.78	5.71	0.5	Both Samples >5x RDL		Not Calculated		17%		Acceptable
Copper	mg/kg	1	32.9	60.8	2.5	Both Samples >5x RDL		Not Calculated		60%		Acceptable
Iron	mg/kg	50	19,000	14,500	250	Both Samples >5x RDL		Not Calculated		27%		Acceptable
Lead	mg/kg	1	45.8	41.6	2.5	Both Samples >5x RDL		Not Calculated		10%		Acceptable
Manganese	mg/kg	1.0	648	621	5	Both Samples >5x RDL		Not Calculated		4%		Acceptable
Molybdenum	mg/kg	0	0.38	0.32	0.5	0.06		0.2		Not Calculated		Acceptable
Nickel	mg/kg	1	10.9	10.4	2.5	Both Samples >5x RDL		Not Calculated		5%		Acceptable
Selenium	mg/kg	0	<0.20	<0.20	Not Calculated		Not Calculated		Not Calculated		Not Calculated	
Silver	mg/kg	0	<0.10	<0.10	Not Calculated		Not Calculated		Not Calculated		Not Calculated	
Strontium	mg/kg	0.5	89	82.6	2.5	Both Samples >5x RDL		Not Calculated		7%		Acceptable
Sulfur	mg/kg	1,000	<1,000	<1,000	Not Calculated		Not Calculated		Not Calculated		Not Calculated	
Thallium	mg/kg	0	0.116	0.11	0.25	0.006		0.1		Not Calculated		Acceptable
Tin	mg/kg	2.0	<2.0	<2.0	Not Calculated		Not Calculated		Not Calculated		Not Calculated	
Uranium	mg/kg	0	1.64	2.09	0.25	Both Samples >5x RDL		Not Calculated		24%		Acceptable
Vanadium	mg/kg	0.2	21.1	18.7	1	Both Samples >5x RDL		Not Calculated		12%		Acceptable
Zinc	mg/kg	2	143	132	10	Both Samples >5x RDL		Not Calculated		8%		Acceptable

Comments:

Where either parent and field duplicate sample concentrations are less than 5X the RDL, then the absolute difference in values is shown. The difference is acceptable if it is less than 2X the RDL.

Relative percent difference (RPD) is only considered where parent and duplicate sample concentrations are both greater than 5X the RDL. The RPD is considered acceptable if it is within the industry accepted ranges for metals in soil (as detailed in the report).

$$RPD = ((\text{parent result} - \text{duplicate result}) / ((\text{parent result} + \text{duplicate result}) / 2)) * 100$$

QC calculations and results have been evaluated in accordance of the Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (CCME, 2016).

BOLD value indicates the value which the acceptance criteria is based on (i.e. absolute difference or RPD).

Table C5

		Location Code	BH32	25 DUP D					
		Sample Type	Normal	Field Duplicate	5 x the RDL	Absolute Difference b/w Parent and Duplicate	2 x the RDL	Relative Percent Difference	QC Result
		Date	04 Jun 2025	04 Jun 2025					
	Unit	RDL							
Metals									
Aluminium	mg/kg	50	29,100	30,300	250	Both Samples >5x RDL	Not Calculated	4%	Acceptable
Antimony	mg/kg	0	0.1	0.12	0.5	0.02	0.2	Not Calculated	Acceptable
Arsenic	mg/kg	0	3.42	3.56	0.5	Both Samples >5x RDL	Not Calculated	4%	Acceptable
Barium	mg/kg	1	60.7	62	2.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Beryllium	mg/kg	0	1.76	1.73	0.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Boron	mg/kg	5	6.4	7.5	25	1.1	10	Not Calculated	Acceptable
Cadmium	mg/kg	0	0.841	0.907	0.1	Both Samples >5x RDL	Not Calculated	8%	Acceptable
Chromium (Total, III+VI)	mg/kg	0.5	21.9	23.5	2.5	Both Samples >5x RDL	Not Calculated	7%	Acceptable
Cobalt	mg/kg	0	11.5	11.7	0.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Copper	mg/kg	1	44	44.9	2.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Iron	mg/kg	50	19,300	20,200	250	Both Samples >5x RDL	Not Calculated	5%	Acceptable
Lead	mg/kg	1	25.7	27.8	2.5	Both Samples >5x RDL	Not Calculated	8%	Acceptable
Manganese	mg/kg	1.0	538	584	5	Both Samples >5x RDL	Not Calculated	8%	Acceptable
Molybdenum	mg/kg	0	1.85	1.89	0.5	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Nickel	mg/kg	1	19.4	20.4	2.5	Both Samples >5x RDL	Not Calculated	5%	Acceptable
Selenium	mg/kg	0	2.52	2.71	1	Both Samples >5x RDL	Not Calculated	7%	Acceptable
Silver	mg/kg	0	0.11	0.11	0.5	0	0.2	Not Calculated	Acceptable
Strontium	mg/kg	0.5	27	29.9	2.5	Both Samples >5x RDL	Not Calculated	10%	Acceptable
Sulfur	mg/kg	1,000	4,000	4,100	5000	100	2000	Not Calculated	Acceptable
Thallium	mg/kg	0	0.236	0.248	0.25	0.012	0.1	Not Calculated	Acceptable
Tin	mg/kg	2.0	<2.0	<2.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Uranium	mg/kg	0	36	35.8	0.25	Both Samples >5x RDL	Not Calculated	1%	Acceptable
Vanadium	mg/kg	0.2	43.4	46.7	1	Both Samples >5x RDL	Not Calculated	7%	Acceptable
Zinc	mg/kg	2	128	140	10	Both Samples >5x RDL	Not Calculated	9%	Acceptable

Comments:

Where either parent and field duplicate sample concentrations are less than 5X the RDL, then the absolute difference in values is shown. The difference is acceptable if it is less than 2X the RDL.

Relative percent difference (RPD) is only considered where parent and duplicate sample concentrations are both greater than 5X the RDL. The RPD is considered acceptable if it is within the industry accepted ranges for metals in soil (as detailed in the report).

$$RPD = ((\text{parent result} - \text{duplicate result}) / (\text{parent result} + \text{duplicate result}) / 2) * 100$$

QC calculations and results have been evaluated in accordance of the Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (CCME, 2016).

BOLD value indicates the value which the acceptance criteria is based on (i.e. absolute difference or RPD).

Table C6

			Location Code									
			SW11	25 DUP F								
			Normal	Field Duplicate	5 x the RDL	Absolute Difference b/w Parent and Duplicate	2 x the RDL	Relative Percent Difference	QC Result			
Date			03 Jun 2025	03 Jun 2025								
Metals	Unit	RDL										
Aluminium	mg/L	0.003	0.008	0.0118	0.015	0.0038	0.006	Not Calculated	Acceptable			
Antimony	mg/L	0.0001	<0.00010	<0.00010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Arsenic	mg/L	0.0001	<0.00010	<0.00010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Barium	mg/L	0.0001	0.006	0.00597	0.0005	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Beryllium	mg/L	0.00002	<0.000020	<0.000020	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Bismuth	mg/L	0.00005	<0.000050	<0.000050	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Boron	mg/L	0.01	<0.010	<0.010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Cadmium	mg/L	0.000005	<0.0000050	0.000005	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Chromium (Total, III+VI)	mg/L	0.0005	<0.00050	<0.00050	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Cobalt	mg/L	0.0001	<0.00010	<0.00010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Copper	mg/L	0.0005	0.00053	0.00056	0.0025	0.00003	0.001	Not Calculated	Acceptable			
Iron	mg/L	0.01	<0.010	0.014	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Lead	mg/L	0.00005	<0.000050	<0.000050	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Magnesium	mg/L	0.005	8.97	8.85	0.025	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Manganese	mg/L	0.0001	0.00188	0.0021	0.0005	Both Samples >5x RDL	Not Calculated	11%	Acceptable			
Mercury	mg/L		-	-	-	-	-	-	-			
Molybdenum	mg/L	0.00005	0.000428	0.000434	0.00025	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Nickel	mg/L	0.0005	<0.00050	<0.00050	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Silica (SiO2)	mg/L	0.21	5.56	5.52	1.05	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Calcium Total	mg/L	0.1	30.2	29.8	0.5	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Potassium	mg/L	0.05	0.664	0.656	0.25	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Selenium	mg/L	0.00005	0.000069	0.000099	0.00025	0.00003	0.0001	Not Calculated	Acceptable			
Cesium	mg/L	0.00001	<0.000010	<0.000010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Rubidium	mg/L	0.0002	0.00126	0.0013	0.001	Both Samples >5x RDL	Not Calculated	3%	Acceptable			
Tellurium	mg/L	0.0002	<0.00020	<0.00020	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Thorium	mg/L	0.0001	<0.00010	<0.00010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Tungsten	mg/L	0.0001	<0.00010	<0.00010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Lithium	mg/L	0.001	<0.0010	<0.0010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Silver	mg/L	0.00001	<0.000010	<0.000010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Silicon	mg/L	0.1	2.6	2.58	0.5	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Sodium	mg/L	0.05	10.8	10.8	0.25	Both Samples >5x RDL	Not Calculated	0%	Acceptable			
Strontium	mg/L	0.0002	0.038	0.0375	0.001	Both Samples >5x RDL	Not Calculated	1%	Acceptable			
Sulphur as S	mg/L	0.5	4.45	4.3	2.5	Both Samples >5x RDL	Not Calculated	3%	Acceptable			
Titanium	mg/L	0.0003	<0.00030	<0.00030	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Thallium	mg/L	0.00001	<0.000010	<0.000010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Tin	mg/L	0.0001	<0.00010	<0.00010	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Uranium	mg/L	0.00001	0.00202	0.00197	0.00005	Both Samples >5x RDL	Not Calculated	3%	Acceptable			
Vanadium	mg/L	0.0005	<0.00050	<0.00050	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Zinc	mg/L	0.003	<0.0030	<0.0030	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Zirconium	mg/L	0.0002	<0.00020	<0.00020	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			
Phosphorus	mg/L	0.05	<0.050	<0.050	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated			

Comments:

Where either parent and field duplicate sample concentrations are less than 5X the RDL, then the absolute difference in values is shown. The difference is acceptable if it is less than 2X the RDL.

Relative percent difference (RPD) is only considered where parent and duplicate sample concentrations are both greater than 5X the RDL. The RPD is considered acceptable if it is within the industry accepted ranges for metals in surface water(as detailed in the report).

$$RPD = \frac{(\text{parent result} - \text{duplicate result})}{(\text{parent result} + \text{duplicate result}/2)} * 100$$

QC calculations and results have been evaluated in accordance of the Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (CCME, 2016).

BOLD value indicates the value which the acceptance criteria is based on (i.e. absolute difference or RPD).

Table C7

	Unit	RDL	Location Code		5 x the RDL	Absolute Difference b/w Parent and Duplicate	2 x the RDL	Relative Percent Difference	QC Result
			SED 14	25 DUP E					
			Normal	Field Duplicate					
Date	03 Jun 2025	03 Jun 2025							
Metals									
Aluminium	mg/kg	50	14,900	15,200	250	Both Samples >5x RDL	Not Calculated	2%	Acceptable
Antimony	mg/kg	0.1	<0.10	<0.10	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Arsenic	mg/kg	0.1	1.80	1.68	0.5	Both Samples >5x RDL	Not Calculated	7%	Acceptable
Barium	mg/kg	0.5	72.0	68.8	2.5	Both Samples >5x RDL	Not Calculated	5%	Acceptable
Beryllium	mg/kg	0.1	0.58	0.58	0.5	Both Samples >5x RDL	Not Calculated	0%	Acceptable
Boron	mg/kg	5	<5.0	<5.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Cadmium	mg/kg	0.02	0.211	0.220	0.1	Both Samples >5x RDL	Not Calculated	4%	Acceptable
Chromium (Total, III+VI)	mg/kg	0.5	12.3	12.3	2.5	Both Samples >5x RDL	Not Calculated	0%	Acceptable
Cobalt	mg/kg	0.1	8.86	8.51	0.5	Both Samples >5x RDL	Not Calculated	4%	Acceptable
Copper	mg/kg	0.5	14.2	19.1	2.5	Both Samples >5x RDL	Not Calculated	29%	Acceptable
Iron	mg/kg	50	22,200	22,200	250	Both Samples >5x RDL	Not Calculated	0%	Acceptable
Lead	mg/kg	0.5	7.77	9.52	2.5	Both Samples >5x RDL	Not Calculated	20%	Acceptable
Manganese	mg/kg	1	612	604	5	Both Samples >5x RDL	Not Calculated	1%	Acceptable
Molybdenum	mg/kg	0.1	0.42	0.40	0.5	Both Samples >5x RDL	Not Calculated	5%	Acceptable
Nickel	mg/kg	0.5	11.0	10.5	2.5	Both Samples >5x RDL	Not Calculated	5%	Acceptable
Calcium Dissolved	mg/kg	-	-	-	-	-	-	-	-
Selenium	mg/kg	0.2	0.27	0.22	1	Both Samples >5x RDL	Not Calculated	20%	Acceptable
Silver	mg/kg	0.1	<0.10	<0.10	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Strontium	mg/kg	0.5	19.9	20.9	2.5	Both Samples >5x RDL	Not Calculated	5%	Acceptable
Sulphur	mg/kg	1,000	<1,000	<1,000	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Thallium	mg/kg	0.05	0.078	0.080	0.25	Both Samples >5x RDL	Not Calculated	3%	Acceptable
Tin	mg/kg	2	<2.0	<2.0	Not Calculated	Not Calculated	Not Calculated	Not Calculated	Not Calculated
Uranium	mg/kg	0.05	1.58	2.23	0.25	Both Samples >5x RDL	Not Calculated	34%	Acceptable
Vanadium	mg/kg	0.2	39.0	40.1	1	Both Samples >5x RDL	Not Calculated	3%	Acceptable
Zinc	mg/kg	2	94.6	94.5	10	Both Samples >5x RDL	Not Calculated	0%	Acceptable

Comments:

Where either parent and field duplicate sample concentrations are less than 5X the RDL, then the absolute difference in values is shown. The difference is acceptable if it is less than 2X the RDL.

Relative percent difference (RPD) is only considered where parent and duplicate sample concentrations are both greater than 5X the RDL. The RPD is considered acceptable if it is within the industry accepted ranges for metals in soil (as detailed in the report).

$$RPD = ((\text{parent result} - \text{duplicate result}) / (\text{parent result} + \text{duplicate result}) / 2) * 100$$

QC calculations and results have been evaluated in accordance of the Guidance Manual for Environmental Site Characterization in Support of Environmental and Human Health Risk Assessment (CCME, 2016).

BOLD value indicates the value which the acceptance criteria is based on (i.e. absolute difference or RPD).

Attachment D

Laboratory Certificates of Analysis



Your Project #: 24-8606
 Site Location: FRENCHVALE

Attention: Nadine Wambolt

Dillon Consulting Limited
 275 Charlotte St
 Sydney, NS
 CANADA B1P 1C6

Report Date: 2025/06/16
 Report #: R8557966
 Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C566847

Received: 2025/06/09, 10:15

Sample Matrix: Soil
 # Samples Received: 2

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
TEH in Soil (PIRI) (1, 2)	2	2025/06/10	2025/06/10	ATL SOP 00111	Atl. RBCA v3.1 m
Moisture (1)	2	N/A	2025/06/10	ATL SOP 00001	OMOE Handbook 1983 m
ModTPH (T1) Calc. for Soil (1)	2	N/A	2025/06/12	N/A	Atl. RBCA v3.1 m
VPH in Soil (PIRI) - Field Preserved (1, 3)	2	N/A	2025/06/11	ATL SOP 00119	Atl. RBCA v3.1 m

Remarks:

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

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

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

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

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

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

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

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

(1) This test was performed by Bureau Veritas Bedford, 200 Bluewater Rd Suite 105, Bedford, NS, B4B 1G9

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

(3) No lab extraction date is given for C6-C10/BTEX and VOC samples that are field preserved with methanol. Extraction date is date sampled unless otherwise stated.



Your Project #: 24-8606
Site Location: FRENCHVALE

Attention: Nadine Wambolt

Dillon Consulting Limited
275 Charlotte St
Sydney, NS
CANADA B1P 1C6

Report Date: 2025/06/16
Report #: R8557966
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C566847

Received: 2025/06/09, 10:15

Encryption Key

Please direct all questions regarding this Certificate of Analysis to:
Natalie MacAskill, Key Account Specialist
Email: Natalie.MacAskill@bureauveritas.com
Phone# (902)567-1255 Ext:17

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validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Kathy Martin, Laboratory Manager
responsible for Nova Scotia Environmental laboratory operations.



RESULTS OF ANALYSES OF SOIL

Bureau Veritas ID		ARRX01	ARRX02		
Sampling Date		2025/06/04	2025/06/04		
	UNITS	BH44 0-0.15M	BH45 0-0.15M	RDL	QC Batch
Inorganics					
Moisture	%	52	26	1.0	9945959
RDL = Reportable Detection Limit					
QC Batch = Quality Control Batch					



ATLANTIC RBCA HYDROCARBONS (SOIL)

Bureau Veritas ID		ARRX01	ARRX02		
Sampling Date		2025/06/04	2025/06/04		
	UNITS	BH44 0-0.15M	BH45 0-0.15M	RDL	QC Batch
Petroleum Hydrocarbons					
Benzene	mg/kg	<0.0050	<0.0050	0.0050	9947278
Toluene	mg/kg	<0.050	<0.050	0.050	9947278
Ethylbenzene	mg/kg	<0.010	<0.010	0.010	9947278
Total Xylenes	mg/kg	<0.050	<0.050	0.050	9947278
C6 - C10 (less BTEX)	mg/kg	<2.5	<2.5	2.5	9947278
>C10-C16 Hydrocarbons	mg/kg	<10	<10	10	9946282
>C16-C21 Hydrocarbons	mg/kg	41	25	10	9946282
>C21-<C32 Hydrocarbons	mg/kg	150	170	15	9946282
Modified TPH (Tier1)	mg/kg	190	190	15	9945028
Reached Baseline at C32	mg/kg	Yes	Yes	N/A	9946282
Hydrocarbon Resemblance	mg/kg	COMMENT (1)	COMMENT (1)	N/A	9946282
Surrogate Recovery (%)					
Isobutylbenzene - Extractable	%	100	102		9946282
n-Dotriacontane - Extractable	%	95	93		9946282
Isobutylbenzene - Volatile	%	99	97		9947278
RDL = Reportable Detection Limit QC Batch = Quality Control Batch N/A = Not Applicable (1) Unidentified compound(s) in fuel / lube range. Possible lube oil fraction.					



**BUREAU
VERITAS**

Bureau Veritas Job #: C566847
Report Date: 2025/06/16

Dillon Consulting Limited
Client Project #: 24-8606
Site Location: FRENCHVALE

GENERAL COMMENTS

Results relate only to the items tested.



QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
9945959	RMC	RPD	Moisture	2025/06/10	6.7		%	25
9946282	MSK	Matrix Spike	Isobutylbenzene - Extractable	2025/06/10		103	%	60 - 130
			n-Dotriacontane - Extractable	2025/06/10		106	%	60 - 130
			>C10-C16 Hydrocarbons	2025/06/10		101	%	30 - 130
			>C16-C21 Hydrocarbons	2025/06/10		104	%	30 - 130
			>C21-<C32 Hydrocarbons	2025/06/10		104	%	30 - 130
9946282	MSK	Spiked Blank	Isobutylbenzene - Extractable	2025/06/10		101	%	60 - 130
			n-Dotriacontane - Extractable	2025/06/10		106	%	60 - 130
			>C10-C16 Hydrocarbons	2025/06/10		96	%	60 - 130
			>C16-C21 Hydrocarbons	2025/06/10		99	%	60 - 130
			>C21-<C32 Hydrocarbons	2025/06/10		98	%	60 - 130
9946282	MSK	Method Blank	Isobutylbenzene - Extractable	2025/06/10		98	%	60 - 130
			n-Dotriacontane - Extractable	2025/06/10		104	%	60 - 130
			>C10-C16 Hydrocarbons	2025/06/10	<10	mg/kg		
			>C16-C21 Hydrocarbons	2025/06/10	<10	mg/kg		
			>C21-<C32 Hydrocarbons	2025/06/10	<15	mg/kg		
9946282	MSK	RPD	>C10-C16 Hydrocarbons	2025/06/10	NC		%	50
			>C16-C21 Hydrocarbons	2025/06/10	NC		%	50
			>C21-<C32 Hydrocarbons	2025/06/10	NC		%	50
9947278	KCS	Matrix Spike	Isobutylbenzene - Volatile	2025/06/11		99	%	60 - 130
			Benzene	2025/06/11		86	%	60 - 130
			Toluene	2025/06/11		89	%	60 - 130
			Ethylbenzene	2025/06/11		92	%	60 - 130
			Total Xylenes	2025/06/11		93	%	60 - 130
9947278	KCS	Spiked Blank	Isobutylbenzene - Volatile	2025/06/11		90	%	60 - 130
			Benzene	2025/06/11		91	%	60 - 140
			Toluene	2025/06/11		93	%	60 - 140
			Ethylbenzene	2025/06/11		92	%	60 - 140
			Total Xylenes	2025/06/11		93	%	60 - 140
9947278	KCS	Method Blank	Isobutylbenzene - Volatile	2025/06/11		95	%	60 - 130
			Benzene	2025/06/11	<0.0050	mg/kg		
			Toluene	2025/06/11	<0.050	mg/kg		
			Ethylbenzene	2025/06/11	<0.010	mg/kg		
			Total Xylenes	2025/06/11	<0.050	mg/kg		
			C6 - C10 (less BTEX)	2025/06/11	<2.5	mg/kg		
				2025/06/11	NC	%	50	
9947278	KCS	RPD	Benzene	2025/06/11	NC		%	50
			Toluene	2025/06/11	NC		%	50
			Ethylbenzene	2025/06/11	NC		%	50
			Total Xylenes	2025/06/11	NC		%	50
			C6 - C10 (less BTEX)	2025/06/11	NC		%	50

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

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

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

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

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

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



BUREAU
VERITAS

Bureau Veritas Job #: C566847
Report Date: 2025/06/16

Dillon Consulting Limited
Client Project #: 24-8606
Site Location: FRENCHVALE

VALIDATION SIGNATURE PAGE

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

A handwritten signature in black ink that reads "Philippe Deveau".

Phil Deveau, Scientific Specialist (Organics)

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CERTIFICATE OF ANALYSIS

Work Order : **HA2501752**
Client : **Dillon Consulting Limited**
Contact : Nadine Wambolt
Address : 275 Charlotte Street Suite 206
 Sydney Nova Scotia Canada B1P 1C6
Telephone : 902.562.9880 ext. 5206
Project : 24-8606
PO : ----
C-O-C number : ----
Sampler : MK/EJM
Site : ----
Quote number : HA24-DICL100-2 - Frenchvale Mine
No. of samples received : 53
No. of samples analysed : 53

Laboratory : ALS Environmental - Halifax
Account Manager : Andrew Martin
Address : 13-100 Wright Ave
 Dartmouth NS Canada B3B 1L2
E-mail : andrew.martin@alsglobal.com
Telephone : +1 902 707 4888
Date Samples Received : 09-Jun-2025 15:30
Date Analysis Commenced : 12-Jun-2025
Issue Date : 17-Jun-2025 22:20

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Greg Pokocky		Metals, Waterloo, Ontario
Greg Pokocky		Inorganics, Waterloo, Ontario
Hedy Lai		Inorganics, Saskatoon, Saskatchewan
Jiaxi Wang		Inorganics, Dartmouth, Nova Scotia
Jon Fisher		Inorganics, Waterloo, Ontario
Samuel Galarza		Centralized Prep, Waterloo, Ontario
Walt Kippenhuck		Metals, Waterloo, Ontario
Walt Kippenhuck		Inorganics, Waterloo, Ontario



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	no units
%	percent
CU	colour units (1 cu = 1 mg/l pt)
meq/L	milliequivalents per litre
mg/kg	milligrams per kilogram
mg/L	milligrams per litre
NTU	nephelometric turbidity units
pH units	pH units
µS/cm	microsiemens per centimetre

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Qualifiers

<i>Qualifier</i>	<i>Description</i>
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).





Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH20 0-0.15m	BH20 0.5m	BH21 0-0.15m	BH21 0.5m	BH22 0-0.15m
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-001	HA2501752-002	HA2501752-003	HA2501752-004	HA2501752-005	
					Result	Result	Result	Result	Result	
Physical Tests										
pH (1:2 soil:CaCl2-aq)	----	E108A/WT	0.10	pH units	3.90	4.29	4.03	4.78	5.24	
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	10800	25800	9230	21000	21400	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	0.26	0.10	0.17	<0.10	0.12	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	2.82	2.42	2.93	2.05	2.79	
Barium	7440-39-3	E440/WT	0.50	mg/kg	46.3	46.7	27.3	20.5	40.2	
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.15	0.46	0.23	0.50	0.50	
Boron	7440-42-8	E440/WT	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	<5.0	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.112	0.145	0.255	0.115	0.154	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	10.3	18.6	7.96	18.0	15.9	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	3.17	10.0	3.32	9.94	8.43	
Copper	7440-50-8	E440/WT	0.50	mg/kg	9.33	17.3	8.16	9.68	14.0	
Iron	7439-89-6	E440/WT	50	mg/kg	19100	31800	15600	23900	31200	
Lead	7439-92-1	E440/WT	0.50	mg/kg	34.9	13.3	23.0	15.5	17.5	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	139	375	104	348	400	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.55	0.54	0.96	0.87	1.26	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	5.46	15.1	4.78	14.3	12.8	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	0.72	0.63	1.09	0.43	0.50	
Silver	7440-22-4	E440/WT	0.10	mg/kg	0.16	<0.10	0.11	<0.10	<0.10	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	11.1	18.4	14.0	17.9	22.2	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	<1000	<1000	<1000	<1000	



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH20 0-0.15m	BH20 0.5m	BH21 0-0.15m	BH21 0.5m	BH22 0-0.15m
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-001	HA2501752-002	HA2501752-003	HA2501752-004	HA2501752-005	
					Result	Result	Result	Result	Result	
Metals										
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.088	0.088	0.074	0.062	0.108	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	7440-61-1	E440/WT	0.050	mg/kg	0.666	0.869	0.640	0.801	1.86	
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	51.6	59.9	39.3	47.6	63.1	
Zinc	7440-66-6	E440/WT	2.0	mg/kg	30.3	68.4	34.6	66.1	85.2	

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH22 0.5m	BH23 0-0.15m	BH23 0.5m	BH23 0-0.5m	25DUP B
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-006	HA2501752-007	HA2501752-008	HA2501752-009	HA2501752-010	
					Result	Result	Result	Result	Result	
Physical Tests										
pH (1:2 soil:CaCl2-aq)	----	E108A/WT	0.10	pH units	5.21	4.79	4.84	----	4.91	
Particle Size										
Sand (>0.075mm)	---	E178/SK	1.0	%	----	----	----	56.6	----	
Fines (<0.075mm)	---	E178/SK	1.0	%	----	----	----	43.4	----	
Texture class	---	E178/SK	-	-	----	----	----	Coarse	----	
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	19600	21500	22700	----	20800	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	<0.10	0.13	<0.10	----	0.13	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	2.08	2.51	2.24	----	2.79	
Barium	7440-39-3	E440/WT	0.50	mg/kg	29.4	37.8	30.9	----	35.8	



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH22 0.5m	BH23 0-0.15m	BH23 0.5m	BH23 0-0.5m	25DUP B
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-006	HA2501752-007	HA2501752-008	HA2501752-009	HA2501752-010	
					Result	Result	Result	Result	Result	
Metals										
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.43	0.45	0.56	----	0.45	
Boron	7440-42-8	E440/WT	5.0	mg/kg	<5.0	<5.0	<5.0	----	<5.0	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.140	0.235	0.177	----	0.219	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	15.3	19.4	23.9	----	18.5	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	7.77	11.2	14.2	----	11.3	
Copper	7440-50-8	E440/WT	0.50	mg/kg	11.2	16.0	19.3	----	15.2	
Iron	7439-89-6	E440/WT	50	mg/kg	29200	30400	29900	----	28700	
Lead	7439-92-1	E440/WT	0.50	mg/kg	14.9	19.8	14.8	----	18.0	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	365	566	525	----	524	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	1.52	1.02	0.87	----	0.99	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	9.94	15.0	19.0	----	13.9	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	0.37	0.50	0.34	----	0.44	
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	<0.10	<0.10	----	<0.10	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	19.0	18.8	21.8	----	17.9	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	<1000	<1000	----	<1000	
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.090	0.124	0.097	----	0.116	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	----	<2.0	
Uranium	7440-61-1	E440/WT	0.050	mg/kg	1.53	1.20	1.57	----	1.16	
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	64.1	62.6	61.2	----	61.4	
Zinc	7440-66-6	E440/WT	2.0	mg/kg	71.7	125	78.3	----	117	

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH24 0-0.15m	BH24 0.5m	BH25 0-0.15m	BH25 0.44 m	BH26 0-0.15m
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-011	HA2501752-012	HA2501752-013	HA2501752-014	HA2501752-015	
					Result	Result	Result	Result	Result	
Physical Tests										
pH (1:2 soil:CaCl2-aq)	----	E108A/WT	0.10	pH units	4.68	4.99	4.34	----	7.37	
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	22600	29500	18100	33300	10300	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	0.14	<0.10	0.21	0.16	<0.10	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	2.32	1.98	2.85	2.68	1.81	
Barium	7440-39-3	E440/WT	0.50	mg/kg	42.6	35.4	33.9	40.2	15.0	
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.47	0.75	0.31	0.61	0.54	
Boron	7440-42-8	E440/WT	5.0	mg/kg	<5.0	<5.0	<5.0	<5.0	7.5	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.116	0.141	0.146	0.155	0.180	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	22.5	28.0	15.8	24.5	10.2	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	9.58	15.2	5.33	12.5	7.34	
Copper	7440-50-8	E440/WT	0.50	mg/kg	13.3	14.7	6.48	8.16	60.4	
Iron	7439-89-6	E440/WT	50	mg/kg	32400	33200	27600	34400	14800	
Lead	7439-92-1	E440/WT	0.50	mg/kg	15.1	11.6	15.5	10.4	15.6	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	334	336	335	460	625	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	1.14	0.74	0.65	0.68	0.53	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	16.6	27.3	7.63	19.1	9.74	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	0.50	0.48	0.64	0.58	<0.20	
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	<0.10	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	16.0	13.8	9.48	10.8	66.3	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	<1000	<1000	<1000	<1000	



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH24 0-0.15m	BH24 0.5m	BH25 0-0.15m	BH25 0.44 m	BH26 0-0.15m
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-011	HA2501752-012	HA2501752-013	HA2501752-014	HA2501752-015	
					Result	Result	Result	Result	Result	
Metals										
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.128	0.111	0.103	0.084	0.085	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	7440-61-1	E440/WT	0.050	mg/kg	0.930	1.34	0.977	0.904	1.54	
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	59.2	54.1	64.6	62.8	23.2	
Zinc	7440-66-6	E440/WT	2.0	mg/kg	104	111	68.0	122	75.9	

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH27 0-0.15m	BH28 0-0.15m	BH29 0-0.15m	BH30 0-0.15m	BH31 0-0.15m
					Client sampling date / time	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-016	HA2501752-017	HA2501752-018	HA2501752-019	HA2501752-020	
					Result	Result	Result	Result	Result	
Physical Tests										
pH (1:2 soil:CaCl2-aq)	----	E108A/WT	0.10	pH units	----	----	4.64	----	----	
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	16800	9830	24200	22900	9980	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	<0.10	<0.10	0.13	0.14	<0.10	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	2.42	2.34	2.49	2.73	1.66	
Barium	7440-39-3	E440/WT	0.50	mg/kg	28.5	19.9	31.5	51.9	15.5	
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.80	0.35	0.55	0.50	0.42	
Boron	7440-42-8	E440/WT	5.0	mg/kg	9.7	9.1	<5.0	<5.0	9.1	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.243	0.828	0.118	0.226	0.394	



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID				
					BH27 0-0.15m	BH28 0-0.15m	BH29 0-0.15m	BH30 0-0.15m	BH31 0-0.15m
					Client sampling date / time				
					02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-016	HA2501752-017	HA2501752-018	HA2501752-019	HA2501752-020
					Result	Result	Result	Result	Result
Metals									
Chromium	7440-47-3	E440/WT	0.50	mg/kg	14.6	10.5	14.8	15.6	9.97
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	15.3	12.9	7.62	6.39	6.16
Copper	7440-50-8	E440/WT	0.50	mg/kg	227	453	9.46	11.2	28.0
Iron	7439-89-6	E440/WT	50	mg/kg	22500	10800	27900	26200	13500
Lead	7439-92-1	E440/WT	0.50	mg/kg	15.9	37.1	15.8	14.1	42.3
Manganese	7439-96-5	E440/WT	1.0	mg/kg	729	954	391	315	664
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.52	0.28	0.70	0.89	0.51
Nickel	7440-02-0	E440/WT	0.50	mg/kg	24.3	8.15	9.98	10.4	8.30
Selenium	7782-49-2	E440/WT	0.20	mg/kg	<0.20	<0.20	0.61	0.64	<0.20
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	0.11	<0.10	0.10	<0.10
Strontium	7440-24-6	E440/WT	0.50	mg/kg	50.2	126	14.4	16.0	84.4
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	<1000	<1000	<1000	<1000
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.131	0.101	0.111	0.113	0.083
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	7440-61-1	E440/WT	0.050	mg/kg	1.56	0.839	1.06	1.21	1.41
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	35.7	20.6	54.5	51.8	23.1
Zinc	7440-66-6	E440/WT	2.0	mg/kg	83.7	318	59.9	74.6	149

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH32 0-0.15m	BH33 0-0.15m	BH34 0-0.15m	BH35 0-0.15m	BH36 0-0.15m
					Client sampling date / time	02-Jun-2025 00:00	03-Jun-2025 00:00	03-Jun-2025 00:00	03-Jun-2025 00:00	03-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-021	HA2501752-022	HA2501752-023	HA2501752-024	HA2501752-025	
					Result	Result	Result	Result	Result	
Physical Tests										
pH (1:2 soil:CaCl2-aq)	----	E108A/WT	0.10	pH units	7.53	----	----	6.91	----	
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	11300	34200	21100	20600	21000	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	<0.10	0.17	0.16	0.13	0.10	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	1.43	6.82	4.03	3.10	3.24	
Barium	7440-39-3	E440/WT	0.50	mg/kg	13.6	106	45.0	43.9	40.2	
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.68	1.69	1.30	0.80	0.64	
Boron	7440-42-8	E440/WT	5.0	mg/kg	14.1	7.6	6.7	5.2	6.6	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.372	1.16	1.04	0.197	0.343	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	10.2	28.1	17.1	16.2	23.4	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	6.78	20.8	8.74	11.9	15.7	
Copper	7440-50-8	E440/WT	0.50	mg/kg	32.9	107	41.2	18.6	134	
Iron	7439-89-6	E440/WT	50	mg/kg	19000	40000	15900	26700	29700	
Lead	7439-92-1	E440/WT	0.50	mg/kg	45.8	50.3	36.2	13.0	23.0	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	648	2080	462	849	733	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.38	2.77	3.05	0.82	0.68	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	10.9	28.8	16.2	14.3	22.2	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	<0.20	2.64	3.40	0.26	0.34	
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	0.19	0.12	<0.10	<0.10	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	89.0	19.5	30.1	22.3	24.3	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	1200	5800	<1000	<1000	



Analytical Results

Sub-Matrix: Soil/Solid (Matrix: Soil/Solid)					Client sample ID				
					BH32 0-0.15m	BH33 0-0.15m	BH34 0-0.15m	BH35 0-0.15m	BH36 0-0.15m
Client sampling date / time					02-Jun-2025 00:00	03-Jun-2025 00:00	03-Jun-2025 00:00	03-Jun-2025 00:00	03-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-021	HA2501752-022	HA2501752-023	HA2501752-024	HA2501752-025
					Result	Result	Result	Result	Result
Metals									
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.116	0.377	0.246	0.118	0.139
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0
Uranium	7440-61-1	E440/WT	0.050	mg/kg	1.64	32.9	28.5	2.08	1.47
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	21.1	60.5	37.3	48.4	53.5
Zinc	7440-66-6	E440/WT	2.0	mg/kg	143	223	132	69.6	124

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid (Matrix: Soil/Solid)					Client sample ID				
					BH37 0-0.15m	BH38 0-0.15m	25DUP C	25DUP D	25DUP G
Client sampling date / time					03-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	04-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-026	HA2501752-027	HA2501752-028	HA2501752-029	HA2501752-030
					Result	Result	Result	Result	Result
Physical Tests									
pH (1:2 soil:CaCl2-aq)	----	E108A/WT	0.10	pH units	----	----	----	7.49	----
Particle Size									
Sand (>0.075mm)	---	E178/SK	1.0	%	----	47.4	----	----	----
Fines (<0.075mm)	---	E178/SK	1.0	%	----	52.6	----	----	----
Texture class	---	E178/SK	-	-	----	Fine	----	----	----
Metals									
Aluminum	7429-90-5	E440/WT	50	mg/kg	15300	25600	24500	11400	30300
Antimony	7440-36-0	E440/WT	0.10	mg/kg	<0.10	0.17	0.12	<0.10	0.12
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	2.62	4.96	2.53	1.26	3.56
Barium	7440-39-3	E440/WT	0.50	mg/kg	31.6	42.4	32.4	12.5	62.0



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH37 0-0.15m	BH38 0-0.15m	25DUP C	25DUP D	25DUP G
					Client sampling date / time	03-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	02-Jun-2025 00:00	04-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-026	HA2501752-027	HA2501752-028	HA2501752-029	HA2501752-030	
					Result	Result	Result	Result	Result	
Metals										
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	1.25	0.51	0.51	0.64	1.73	
Boron	7440-42-8	E440/WT	5.0	mg/kg	11.3	<5.0	<5.0	12.8	7.5	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.307	0.196	0.129	0.336	0.907	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	11.1	21.7	16.2	9.97	23.5	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	11.9	8.62	7.63	5.71	11.7	
Copper	7440-50-8	E440/WT	0.50	mg/kg	128	15.1	9.62	60.8	44.9	
Iron	7439-89-6	E440/WT	50	mg/kg	22400	31300	28200	14500	20200	
Lead	7439-92-1	E440/WT	0.50	mg/kg	25.2	20.7	14.7	41.6	27.8	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	1580	366	376	621	584	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.62	0.71	0.64	0.32	1.89	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	12.8	14.9	10.3	10.4	20.4	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	<0.20	0.74	0.67	<0.20	2.71	
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	0.11	<0.10	<0.10	0.11	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	81.2	10.3	12.3	82.6	29.9	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	<1000	<1000	<1000	4100	
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.134	0.119	0.107	0.110	0.248	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	7440-61-1	E440/WT	0.050	mg/kg	1.92	2.54	1.08	2.09	35.8	
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	40.8	59.2	55.2	18.7	46.7	
Zinc	7440-66-6	E440/WT	2.0	mg/kg	115	90.8	61.5	132	140	

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH41 1.5m	BH42 0.45m	BH43 0-0.15m	BH44 0-0.15m	BH45 0-0.15m
					Client sampling date / time	04-Jun-2025 00:00	04-Jun-2025 00:00	03-Jun-2025 00:00	04-Jun-2025 00:00	04-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-031	HA2501752-032	HA2501752-033	HA2501752-034	HA2501752-035	
					Result	Result	Result	Result	Result	
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	29100	22000	19000	36100	8960	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	0.10	0.12	0.12	1.86	5.75	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	3.42	3.47	2.64	4.17	65.2	
Barium	7440-39-3	E440/WT	0.50	mg/kg	60.7	43.0	48.8	125	266	
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	1.76	2.02	0.73	1.32	0.21	
Boron	7440-42-8	E440/WT	5.0	mg/kg	6.4	15.3	5.3	<5.0	8.6	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.841	0.326	0.203	0.434	21.6	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	21.9	15.6	15.0	18.9	89.8	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	11.5	15.4	10.8	15.7	29.9	
Copper	7440-50-8	E440/WT	0.50	mg/kg	44.0	97.0	16.8	19.2	141	
Iron	7439-89-6	E440/WT	50	mg/kg	19300	30200	24800	38200	330000	
Lead	7439-92-1	E440/WT	0.50	mg/kg	25.7	7.92	11.7	362	596	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	538	2850	847	1350	1320	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	1.85	1.56	0.75	1.82	15.4	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	19.4	18.5	12.6	19.2	718	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	2.52	<0.20	0.28	1.24	0.46	
Silver	7440-22-4	E440/WT	0.10	mg/kg	0.11	<0.10	<0.10	0.24	0.13	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	27.0	90.2	23.4	23.7	17.9	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	4000	<1000	<1000	<1000	<1000	
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.236	0.179	0.114	0.183	0.055	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	59.2	8.8	



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID				
					BH41 1.5m	BH42 0.45m	BH43 0-0.15m	BH44 0-0.15m	BH45 0-0.15m
					Client sampling date / time				
					04-Jun-2025 00:00	04-Jun-2025 00:00	03-Jun-2025 00:00	04-Jun-2025 00:00	04-Jun-2025 00:00
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-031	HA2501752-032	HA2501752-033	HA2501752-034	HA2501752-035
					Result	Result	Result	Result	Result
Metals									
Uranium	7440-61-1	E440/WT	0.050	mg/kg	36.0	2.60	1.93	2.01	0.399
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	43.4	46.5	45.6	43.8	23.1
Zinc	7440-66-6	E440/WT	2.0	mg/kg	128	83.2	68.7	159	2140

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID				
					BH46 0.70m	BH47 1.35m	SED11	SED12	SED13
					Client sampling date / time				
					04-Jun-2025 00:00	04-Jun-2025 00:00	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-036	HA2501752-037	HA2501752-040	HA2501752-041	HA2501752-042
					Result	Result	Result	Result	Result
Sample Preparation									
Dummy analyte	----	EP357/WT	1	-	----	----	Not Authorised	Not Authorised	Not Authorised
Particle Size									
Sand (>0.075mm)	----	E178/SK	1.0	%	----	----	----	----	<1.0
Fines (<0.075mm)	----	E178/SK	1.0	%	----	----	----	----	100
Texture class	----	E178/SK	-	-	----	----	----	----	Fine
Metals									
Aluminum	7429-90-5	E440/WT	50	mg/kg	21800	13500	30000	10400	15600
Antimony	7440-36-0	E440/WT	0.10	mg/kg	0.10	<0.10	0.19	<0.15 ^{DLM}	0.16
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	3.00	2.70	4.88	1.54	3.18
Barium	7440-39-3	E440/WT	0.50	mg/kg	36.5	22.8	66.0	50.5	76.3
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.70	0.77	1.61	0.60	0.88



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH46 0.70m	BH47 1.35m	SED11	SED12	SED13
					Client sampling date / time	04-Jun-2025 00:00	04-Jun-2025 00:00	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-036	HA2501752-037	HA2501752-040	HA2501752-041	HA2501752-042	
					Result	Result	Result	Result	Result	
Metals										
Boron	7440-42-8	E440/WT	5.0	mg/kg	6.3	10.5	9.3	<7.5 ^{DLM}	<7.4 ^{DLM}	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.315	0.639	0.545	0.417	0.567	
Chromium	7440-47-3	E440/WT	0.50	mg/kg	21.2	12.1	26.6	8.47	13.2	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	20.5	12.8	20.0	6.39	9.73	
Copper	7440-50-8	E440/WT	0.50	mg/kg	80.7	172	68.0	34.2	47.8	
Iron	7439-89-6	E440/WT	50	mg/kg	32300	19400	39400	11200	15400	
Lead	7439-92-1	E440/WT	0.50	mg/kg	25.6	42.2	56.2	9.80	31.6	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	717	780	1470	300	300	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.74	0.78	1.55	2.44	1.93	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	24.2	14.4	29.0	8.33	14.1	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	0.43	<0.20	0.54	1.42	1.21	
Silver	7440-22-4	E440/WT	0.10	mg/kg	0.46	0.13	<0.10	<0.15 ^{DLM}	<0.15 ^{DLM}	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	38.3	84.1	32.0	12.0	12.1	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	1500	<1000	7000	3300	
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.131	0.164	0.273	0.089	0.157	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<3.0 ^{DLM}	<3.0 ^{DLM}	
Uranium	7440-61-1	E440/WT	0.050	mg/kg	2.41	2.97	4.83	16.4	13.1	
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	48.3	29.0	65.9	25.8	33.0	
Zinc	7440-66-6	E440/WT	2.0	mg/kg	100	250	203	90.4	165	
Aggregate Organics										
Carbon, total organic [TOC]	----	E357/WT	0.10	%	----	----	2.50	8.39	7.46	



Analytical Results

Sub-Matrix: Soil/Solid (Matrix: Soil/Solid)					Client sample ID	BH46 0.70m	BH47 1.35m	SED11	SED12	SED13
					Client sampling date / time	04-Jun-2025 00:00	04-Jun-2025 00:00	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57
Analyte	CAS Number	Method/Lab	LOR	Unit						
					HA2501752-036	HA2501752-037	HA2501752-040	HA2501752-041	HA2501752-042	HA2501752-042
					Result	Result	Result	Result	Result	Result
Aggregate Organics										
Organic matter	----	E357/WT	0.20	%	----	----	4.31	14.5	12.9	

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Soil/Solid (Matrix: Soil/Solid)					Client sample ID	SED14	SED15	SED16	SED17	SED18
					Client sampling date / time	03-Jun-2025 14:25	03-Jun-2025 15:12	03-Jun-2025 15:41	04-Jun-2025 11:05	04-Jun-2025 11:13
Analyte	CAS Number	Method/Lab	LOR	Unit						
					HA2501752-043	HA2501752-044	HA2501752-045	HA2501752-046	HA2501752-047	HA2501752-047
					Result	Result	Result	Result	Result	Result
Sample Preparation										
Dummy analyte	----	EP357/WT	1	-	Not Authorised	Not Authorised	Not Authorised	Not Authorised	Not Authorised	Not Authorised
Particle Size										
Sand (>0.075mm)	----	E178/SK	1.0	%	----	95.5	----	----	----	----
Fines (<0.075mm)	----	E178/SK	1.0	%	----	4.5	----	----	----	----
Texture class	----	E178/SK	-	-	----	Coarse	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	14900	15000	12400	15200	18900	
Antimony	7440-36-0	E440/WT	0.10	mg/kg	<0.10	<0.10	<0.10	<0.10	0.14	
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	1.80	1.74	1.98	3.12	4.32	
Barium	7440-39-3	E440/WT	0.50	mg/kg	72.0	18.2	96.4	27.8	50.9	
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.58	0.86	0.40	0.51	0.72	
Boron	7440-42-8	E440/WT	5.0	mg/kg	<5.0	<5.0	5.3	<5.0	<5.0	
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.211	0.082	0.647	0.117	0.187	



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	SED14	SED15	SED16	SED17	SED18
					Client sampling date / time	03-Jun-2025 14:25	03-Jun-2025 15:12	03-Jun-2025 15:41	04-Jun-2025 11:05	04-Jun-2025 11:13
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-043	HA2501752-044	HA2501752-045	HA2501752-046	HA2501752-047	
					Result	Result	Result	Result	Result	
Metals										
Chromium	7440-47-3	E440/WT	0.50	mg/kg	12.3	9.44	15.5	15.3	20.0	
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	8.86	7.15	6.82	8.70	12.0	
Copper	7440-50-8	E440/WT	0.50	mg/kg	14.2	17.8	432	11.5	15.6	
Iron	7439-89-6	E440/WT	50	mg/kg	22200	24300	16900	24300	30400	
Lead	7439-92-1	E440/WT	0.50	mg/kg	7.77	3.86	11.1	5.94	11.0	
Manganese	7439-96-5	E440/WT	1.0	mg/kg	612	475	455	502	802	
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.42	0.21	0.45	0.57	0.77	
Nickel	7440-02-0	E440/WT	0.50	mg/kg	11.0	10.5	8.91	10.3	19.2	
Selenium	7782-49-2	E440/WT	0.20	mg/kg	0.27	<0.20	1.20	<0.20	0.30	
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	<0.10	0.12	<0.10	<0.10	
Strontium	7440-24-6	E440/WT	0.50	mg/kg	19.9	19.7	19.0	20.9	22.5	
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	<1000	<1000	<1000	<1000	
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.078	0.052	0.158	0.062	0.090	
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	<2.0	<2.0	<2.0	<2.0	
Uranium	7440-61-1	E440/WT	0.050	mg/kg	1.58	1.23	3.93	1.34	2.58	
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	39.0	36.6	36.1	38.8	48.7	
Zinc	7440-66-6	E440/WT	2.0	mg/kg	94.6	43.6	489	43.5	60.8	
Aggregate Organics										
Carbon, total organic [TOC]	----	E357/WT	0.10	%	1.34	0.61	3.40	0.56	1.70	
Organic matter	----	E357/WT	0.20	%	2.31	1.05	5.86	0.96	2.93	

Please refer to the General Comments section for an explanation of any qualifiers detected.



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	25DUP E	----	----	----	----
					Client sampling date / time	03-Jun-2025 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-048	----	----	----	----	----
						Result	----	----	----	----
Sample Preparation										
Dummy analyte	----	EP357/WT	1	-	Not Authorised	----	----	----	----	----
Metals										
Aluminum	7429-90-5	E440/WT	50	mg/kg	15200	----	----	----	----	----
Antimony	7440-36-0	E440/WT	0.10	mg/kg	<0.10	----	----	----	----	----
Arsenic	7440-38-2	E440/WT	0.10	mg/kg	1.68	----	----	----	----	----
Barium	7440-39-3	E440/WT	0.50	mg/kg	68.8	----	----	----	----	----
Beryllium	7440-41-7	E440/WT	0.10	mg/kg	0.58	----	----	----	----	----
Boron	7440-42-8	E440/WT	5.0	mg/kg	<5.0	----	----	----	----	----
Cadmium	7440-43-9	E440/WT	0.020	mg/kg	0.220	----	----	----	----	----
Chromium	7440-47-3	E440/WT	0.50	mg/kg	12.3	----	----	----	----	----
Cobalt	7440-48-4	E440/WT	0.10	mg/kg	8.51	----	----	----	----	----
Copper	7440-50-8	E440/WT	0.50	mg/kg	19.1	----	----	----	----	----
Iron	7439-89-6	E440/WT	50	mg/kg	22200	----	----	----	----	----
Lead	7439-92-1	E440/WT	0.50	mg/kg	9.52	----	----	----	----	----
Manganese	7439-96-5	E440/WT	1.0	mg/kg	604	----	----	----	----	----
Molybdenum	7439-98-7	E440/WT	0.10	mg/kg	0.40	----	----	----	----	----
Nickel	7440-02-0	E440/WT	0.50	mg/kg	10.5	----	----	----	----	----
Selenium	7782-49-2	E440/WT	0.20	mg/kg	0.22	----	----	----	----	----
Silver	7440-22-4	E440/WT	0.10	mg/kg	<0.10	----	----	----	----	----
Strontium	7440-24-6	E440/WT	0.50	mg/kg	20.9	----	----	----	----	----
Sulfur	7704-34-9	E440/WT	1000	mg/kg	<1000	----	----	----	----	----



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	25DUP E	----	----	----	----
					Client sampling date / time	03-Jun-2025 00:00	----	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-048	----	----	----	----	----
					Result	----	----	----	----	----
Metals										
Thallium	7440-28-0	E440/WT	0.050	mg/kg	0.080	----	----	----	----	----
Tin	7440-31-5	E440/WT	2.0	mg/kg	<2.0	----	----	----	----	----
Uranium	7440-61-1	E440/WT	0.050	mg/kg	2.23	----	----	----	----	----
Vanadium	7440-62-2	E440/WT	0.20	mg/kg	40.1	----	----	----	----	----
Zinc	7440-66-6	E440/WT	2.0	mg/kg	94.5	----	----	----	----	----
Aggregate Organics										
Carbon, total organic [TOC]	---	E357/WT	0.10	%	1.33	----	----	----	----	----
Organic matter	---	E357/WT	0.20	%	2.29	----	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW11	SW12	SW13	SW14	SW15
					Client sampling date / time	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57	03-Jun-2025 14:25	03-Jun-2025 15:12
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-049	HA2501752-050	HA2501752-051	HA2501752-052	HA2501752-053	
					Result	Result	Result	Result	Result	
Physical Tests										
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	E290/WT	1.2	mg/L	110	112	112	163	110	
Alkalinity, carbonate (as CO ₃)	3812-32-6	E290/WT	1.0	mg/L	<0.6	<0.6	<0.6	<0.6	<0.6	
Alkalinity, hydroxide (as OH)	14280-30-9	E290/WT	1.0	mg/L	<0.3	<0.3	<0.3	<0.3	<0.3	
Alkalinity, total (as CaCO ₃)	---	E290/WT	1.0	mg/L	90.0	91.6	91.7	134	90.1	
Colour, apparent	---	E330/WT	2.0	CU	17.8	16.5	22.2	7.6	7.7	
Conductivity	---	E100/WT	1.0	µS/cm	216	222	210	274	263	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW11	SW12	SW13	SW14	SW15
					Client sampling date / time	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57	03-Jun-2025 14:25	03-Jun-2025 15:12
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-049	HA2501752-050	HA2501752-051	HA2501752-052	HA2501752-053	
					Result	Result	Result	Result	Result	
Physical Tests										
Hardness (as CaCO3), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	93.3	96.0	93.7	144	112	
Langelier index (@ 20°C)	----	EC105A/WT	0.010	-	-0.429	-0.110	-0.286	0.353	0.006	
Langelier index (@ 4°C)	----	EC105A/WT	0.010	-	-0.681	-0.362	-0.535	0.105	-0.243	
pH	----	E108/HA	0.10	pH units	7.59	7.89	7.71	8.08	7.94	
pH, saturation (@ 20°C)	----	EC105A/WT	0.010	pH units	8.02	8.00	8.00	7.73	7.93	
pH, saturation (@ 4°C)	----	EC105A/WT	0.010	pH units	8.27	8.25	8.24	7.97	8.18	
Solids, total dissolved [TDS]	----	E162/HA	10	mg/L	128	132	96	144	142	
Turbidity	----	E121/WT	0.10	NTU	0.86	0.77	0.99	0.31	0.11	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	0.0106	0.0450	0.0066	0.0133	<0.0050	
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	11.0	11.7	9.49	6.24	14.6	
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.050	0.048	0.044	0.032	0.051	
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.020	<0.020	<0.020	<0.020	0.079	
Nitrate + Nitrite (as N)	----	EC235.N+N/WT	0.0032	mg/L	<0.0224	<0.0224	<0.0224	<0.0224	0.0790	
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	7.77	8.84	7.19	6.44	12.3	
Organic / Inorganic Carbon										
Carbon, total organic [TOC]	----	E355-L/WT	0.50	mg/L	3.07	2.72	3.92	1.54	1.23	
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L	2.27	2.35	2.25	2.99	2.48	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW11	SW12	SW13	SW14	SW15
					Client sampling date / time	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57	03-Jun-2025 14:25	03-Jun-2025 15:12
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-049	HA2501752-050	HA2501752-051	HA2501752-052	HA2501752-053	
					Result	Result	Result	Result	Result	
Ion Balance										
Cation sum (total)	----	EC101A/WT	0.10	meq/L	2.28	2.35	2.22	3.06	2.73	
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	100	100	98.7	102	110	
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	0.0734	0.0290	0.0112	0.0366	0.0080	
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	0.00015	0.00015	0.00017	<0.00010	<0.00010	
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.00783	0.00722	0.0102	0.0498	0.00600	
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	
Boron, total	7440-42-8	E420/WT	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	<0.0000050	<0.0000050	<0.0000050	0.0000152	<0.0000050	
Calcium, total	7440-70-2	E420/WT	0.100	mg/L	24.3	25.1	24.3	32.9	30.2	
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L	0.000014	<0.000010	<0.000010	0.000012	<0.000010	
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.00095	0.00066	<0.00050	0.00054	0.00053	
Iron, total	7439-89-6	E420/WT	0.010	mg/L	0.546	0.221	0.331	0.041	<0.010	
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	0.000140	0.000060	0.000064	<0.000050	<0.000050	
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	7.92	8.10	8.02	14.9	8.97	
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	0.0859	0.0720	0.101	0.00652	0.00188	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW11	SW12	SW13	SW14	SW15
					Client sampling date / time	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57	03-Jun-2025 14:25	03-Jun-2025 15:12
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-049	HA2501752-050	HA2501752-051	HA2501752-052	HA2501752-053	
					Result	Result	Result	Result	Result	
Total Metals										
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L	0.000414	0.000476	0.000496	0.000376	0.000428	
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L	0.066	<0.050	<0.050	<0.050	<0.050	
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	0.534	0.580	0.541	0.567	0.664	
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L	0.00120	0.00124	0.00118	0.00143	0.00126	
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000060	0.000076	0.000052	0.000077	0.000069	
Silicon (as SiO2), total	7631-86-9	EC420.SiO2/WT	0.25	mg/L	2.46	2.91	2.22	5.24	5.56	
Silicon, total	7440-21-3	E420/WT	0.10	mg/L	1.15	1.36	1.04	2.45	2.60	
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	8.58	9.21	7.30	3.85	10.8	
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L	0.0401	0.0394	0.0410	0.0299	0.0380	
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L	2.81	3.16	2.62	2.22	4.45	
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Tin, total	7440-31-5	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L	0.00173	0.00069	<0.00030	0.00117	<0.00030	
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L	0.000967	0.00114	0.000956	0.00194	0.00202	
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW11	SW12	SW13	SW14	SW15
					Client sampling date / time	03-Jun-2025 13:27	03-Jun-2025 13:42	03-Jun-2025 13:57	03-Jun-2025 14:25	03-Jun-2025 15:12
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-049	HA2501752-050	HA2501752-051	HA2501752-052	HA2501752-053	
					Result	Result	Result	Result	Result	
Total Metals										
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

Please refer to the General Comments section for an explanation of any qualifiers detected.

Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW16	25DUP F	----	----	----
					Client sampling date / time	03-Jun-2025 15:41	03-Jun-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-054	HA2501752-055	----	----	----	
					Result	Result	----	----	----	
Physical Tests										
Alkalinity, bicarbonate (as HCO ₃)	71-52-3	E290/WT	1.2	mg/L	187	126	----	----	----	
Alkalinity, carbonate (as CO ₃)	3812-32-6	E290/WT	1.0	mg/L	<0.6	<0.6	----	----	----	
Alkalinity, hydroxide (as OH)	14280-30-9	E290/WT	1.0	mg/L	<0.3	<0.3	----	----	----	
Alkalinity, total (as CaCO ₃)	----	E290/WT	1.0	mg/L	153	103	----	----	----	
Colour, apparent	----	E330/WT	2.0	CU	2.7	10.4	----	----	----	
Conductivity	----	E100/WT	1.0	µS/cm	310	259	----	----	----	
Hardness (as CaCO ₃), from total Ca/Mg	----	EC100A/WT	0.50	mg/L	166	111	----	----	----	
Langelier index (@ 20°C)	----	EC105A/WT	0.010	-	0.370	-0.029	----	----	----	
Langelier index (@ 4°C)	----	EC105A/WT	0.010	-	0.122	-0.278	----	----	----	
pH	----	E108/HA	0.10	pH units	8.00	7.85	----	----	----	
pH, saturation (@ 20°C)	----	EC105A/WT	0.010	pH units	7.63	7.88	----	----	----	
pH, saturation (@ 4°C)	----	EC105A/WT	0.010	pH units	7.88	8.13	----	----	----	
Solids, total dissolved [TDS]	----	E162/HA	10	mg/L	163	139	----	----	----	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW16	25DUP F	----	----	----
					Client sampling date / time	03-Jun-2025 15:41	03-Jun-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-054	HA2501752-055	----	----	----	
					Result	Result	----	----	----	
Physical Tests										
Turbidity	----	E121/WT	0.10	NTU	<0.10	<0.10	----	----	----	
Anions and Nutrients										
Ammonia, total (as N)	7664-41-7	E298/WT	0.0050	mg/L	<0.0050	0.0075	----	----	----	
Chloride	16887-00-6	E235.Cl/WT	0.50	mg/L	6.15	14.6	----	----	----	
Fluoride	16984-48-8	E235.F/WT	0.020	mg/L	0.034	0.050	----	----	----	
Nitrate (as N)	14797-55-8	E235.NO3/WT	0.020	mg/L	<0.020	0.074	----	----	----	
Nitrate + Nitrite (as N)	----	EC235.N+N/WT	0.0032	mg/L	<0.0224	0.0740	----	----	----	
Nitrite (as N)	14797-65-0	E235.NO2/WT	0.010	mg/L	<0.010	<0.010	----	----	----	
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Sulfate (as SO4)	14808-79-8	E235.SO4/WT	0.30	mg/L	6.82	12.3	----	----	----	
Organic / Inorganic Carbon										
Carbon, total organic [TOC]	----	E355-L/WT	0.50	mg/L	<0.50	1.08	----	----	----	
Ion Balance										
Anion sum	----	EC101A/WT	0.10	meq/L	3.37	2.73	----	----	----	
Cation sum (total)	----	EC101A/WT	0.10	meq/L	3.47	2.70	----	----	----	
Ion balance (cations/anions)	----	EC101A/WT	0.01	%	103	98.9	----	----	----	
Total Metals										
Aluminum, total	7429-90-5	E420/WT	0.0030	mg/L	<0.0030	0.0118	----	----	----	
Antimony, total	7440-36-0	E420/WT	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Arsenic, total	7440-38-2	E420/WT	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Barium, total	7440-39-3	E420/WT	0.00010	mg/L	0.0644	0.00597	----	----	----	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW16	25DUP F	----	----	----
					Client sampling date / time	03-Jun-2025 15:41	03-Jun-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-054	HA2501752-055	----	----	----	
					Result	Result	----	----	----	
Total Metals										
Beryllium, total	7440-41-7	E420/WT	0.000020	mg/L	<0.000020	<0.000020	----	----	----	
Bismuth, total	7440-69-9	E420/WT	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Boron, total	7440-42-8	E420/WT	0.010	mg/L	<0.010	<0.010	----	----	----	
Cadmium, total	7440-43-9	E420/WT	0.0000050	mg/L	0.0000219	0.0000050	----	----	----	
Calcium, total	7440-70-2	E420/WT	0.100	mg/L	36.6	29.8	----	----	----	
Cesium, total	7440-46-2	E420/WT	0.000010	mg/L	0.000015	<0.000010	----	----	----	
Chromium, total	7440-47-3	E420/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Cobalt, total	7440-48-4	E420/WT	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Copper, total	7440-50-8	E420/WT	0.00050	mg/L	0.00067	0.00056	----	----	----	
Iron, total	7439-89-6	E420/WT	0.010	mg/L	<0.010	0.014	----	----	----	
Lead, total	7439-92-1	E420/WT	0.000050	mg/L	<0.000050	<0.000050	----	----	----	
Lithium, total	7439-93-2	E420/WT	0.0010	mg/L	<0.0010	<0.0010	----	----	----	
Magnesium, total	7439-95-4	E420/WT	0.0050	mg/L	18.0	8.85	----	----	----	
Manganese, total	7439-96-5	E420/WT	0.00010	mg/L	<0.00010	0.00210	----	----	----	
Molybdenum, total	7439-98-7	E420/WT	0.000050	mg/L	0.000318	0.000434	----	----	----	
Nickel, total	7440-02-0	E420/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Phosphorus, total	7723-14-0	E420/WT	0.050	mg/L	<0.050	<0.050	----	----	----	
Potassium, total	7440-09-7	E420/WT	0.050	mg/L	0.622	0.656	----	----	----	
Rubidium, total	7440-17-7	E420/WT	0.00020	mg/L	0.00147	0.00130	----	----	----	
Selenium, total	7782-49-2	E420/WT	0.000050	mg/L	0.000119	0.000099	----	----	----	
Silicon (as SiO ₂), total	7631-86-9	EC420.SiO ₂ /WT	0.25	mg/L	5.71	5.52	----	----	----	



Analytical Results

Sub-Matrix: Surface Water
 (Matrix: Water)

					Client sample ID	SW16	25DUP F	----	----	----
					Client sampling date / time	03-Jun-2025 15:41	03-Jun-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501752-054	HA2501752-055	----	----	----	
					Result	Result	----	----	----	
Total Metals										
Silicon, total	7440-21-3	E420/WT	0.10	mg/L	2.67	2.58	----	----	----	
Silver, total	7440-22-4	E420/WT	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
Sodium, total	7440-23-5	E420/WT	0.050	mg/L	3.43	10.8	----	----	----	
Strontium, total	7440-24-6	E420/WT	0.00020	mg/L	0.0268	0.0375	----	----	----	
Sulfur, total	7704-34-9	E420/WT	0.50	mg/L	2.39	4.30	----	----	----	
Tellurium, total	13494-80-9	E420/WT	0.00020	mg/L	<0.00020	<0.00020	----	----	----	
Thallium, total	7440-28-0	E420/WT	0.000010	mg/L	<0.000010	<0.000010	----	----	----	
Thorium, total	7440-29-1	E420/WT	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Tin, total	7440-31-5	E420/WT	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Titanium, total	7440-32-6	E420/WT	0.00030	mg/L	<0.00030	<0.00030	----	----	----	
Tungsten, total	7440-33-7	E420/WT	0.00010	mg/L	<0.00010	<0.00010	----	----	----	
Uranium, total	7440-61-1	E420/WT	0.000010	mg/L	0.00239	0.00197	----	----	----	
Vanadium, total	7440-62-2	E420/WT	0.00050	mg/L	<0.00050	<0.00050	----	----	----	
Zinc, total	7440-66-6	E420/WT	0.0030	mg/L	0.0068	<0.0030	----	----	----	
Zirconium, total	7440-67-7	E420/WT	0.00020	mg/L	<0.00020	<0.00020	----	----	----	

Please refer to the General Comments section for an explanation of any qualifiers detected.



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : HA2501752</p> <p>Client : Dillon Consulting Limited</p> <p>Contact : Nadine Wambolt</p> <p>Address : 275 Charlotte Street Suite 206 Sydney NS Canada B1P 1C6</p> <p>Telephone : 902.562.9880 ext. 5206</p> <p>Project : 24-8606</p> <p>PO : ----</p> <p>C-O-C number : ----</p> <p>Sampler : MK/EJM</p> <p>Site :</p> <p>Quote number : HA24-DICL100-2 - Frenchvale Mine</p> <p>No. of samples received : 53</p> <p>No. of samples analysed : 53</p>	<p>Page : 1 of 30</p> <p>Laboratory : ALS Environmental - Halifax</p> <p>Account Manager : Andrew Martin</p> <p>Address : 13-100 Wright Ave Dartmouth, Nova Scotia Canada B3B 1L2</p> <p>Telephone : +1 902 707 4888</p> <p>Date Samples Received : 09-Jun-2025 15:30</p> <p>Issue Date : 17-Jun-2025 22:18</p>
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This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Method Blank value outliers occur.
- No Laboratory Control Sample (LCS) outliers occur
- No Matrix Spike outliers occur.
- Duplicate outliers occur - please see following pages for full details.
- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **Water**

Analyte Group	Laboratory sample ID	Client/Ref Sample ID	Analyte	CAS Number	Method	Result	Limits	Comment
Duplicate (DUP) RPDs								
Total Metals	HA2501752-049	SW11	Aluminum, total	7429-90-5	E420	33.5 % DUP-H	20%	Duplicate RPD does not meet the DQO for this test.

Result Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED17	E357	04-Jun-2025	17-Jun-2025	28 days	13 days	✔	17-Jun-2025	28 days	13 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED18	E357	04-Jun-2025	17-Jun-2025	28 days	13 days	✔	17-Jun-2025	28 days	13 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED11	E357	03-Jun-2025	17-Jun-2025	28 days	14 days	✔	17-Jun-2025	28 days	14 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED12	E357	03-Jun-2025	17-Jun-2025	28 days	14 days	✔	17-Jun-2025	28 days	14 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED13	E357	03-Jun-2025	17-Jun-2025	28 days	14 days	✔	17-Jun-2025	28 days	14 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED14	E357	03-Jun-2025	17-Jun-2025	28 days	14 days	✔	17-Jun-2025	28 days	14 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED15	E357	03-Jun-2025	17-Jun-2025	28 days	14 days	✔	17-Jun-2025	28 days	14 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap SED16	E357	03-Jun-2025	17-Jun-2025	28 days	14 days	✔	17-Jun-2025	28 days	14 days	✔
Aggregate Organics : Total Organic Carbon by Wet Oxidation and Titration										
Glass soil jar/Teflon lined cap 25DUP E	E357	03-Jun-2025	17-Jun-2025	28 days	15 days	✔	17-Jun-2025	28 days	15 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap SED15	E440	03-Jun-2025	13-Jun-2025	180 days	10 days	✔	13-Jun-2025	180 days	10 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap BH44 0-0.15m	E440	04-Jun-2025	16-Jun-2025	180 days	12 days	✔	16-Jun-2025	180 days	12 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap BH45 0-0.15m	E440	04-Jun-2025	16-Jun-2025	180 days	12 days	✔	16-Jun-2025	180 days	12 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap BH46 0.70m	E440	04-Jun-2025	16-Jun-2025	180 days	12 days	✔	16-Jun-2025	180 days	12 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap BH47 1.35m	E440	04-Jun-2025	16-Jun-2025	180 days	12 days	✔	16-Jun-2025	180 days	12 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap SED17	E440	04-Jun-2025	16-Jun-2025	180 days	12 days	✔	16-Jun-2025	180 days	12 days	✔
Metals : Metals in Soil/Solid by CRC ICPMS										
Glass soil jar/Teflon lined cap SED18	E440	04-Jun-2025	16-Jun-2025	180 days	12 days	✔	16-Jun-2025	180 days	12 days	✔



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap 25DUP E	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap 25DUP G	E440	04-Jun-2025	16-Jun-2025	180 days	13 days	✔	17-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH41 1.5m	E440	04-Jun-2025	16-Jun-2025	180 days	13 days	✔	17-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH42 0.45m	E440	04-Jun-2025	16-Jun-2025	180 days	13 days	✔	17-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH43 0-0.15m	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap SED11	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap SED12	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap SED13	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap SED14	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap SED16	E440	03-Jun-2025	16-Jun-2025	180 days	13 days	✔	16-Jun-2025	180 days	13 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH33 0-0.15m	E440	03-Jun-2025	16-Jun-2025	180 days	14 days	✔	16-Jun-2025	180 days	14 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH34 0-0.15m	E440	03-Jun-2025	16-Jun-2025	180 days	14 days	✔	16-Jun-2025	180 days	14 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH35 0-0.15m	E440	03-Jun-2025	16-Jun-2025	180 days	14 days	✔	16-Jun-2025	180 days	14 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH36 0-0.15m	E440	03-Jun-2025	16-Jun-2025	180 days	14 days	✔	16-Jun-2025	180 days	14 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH37 0-0.15m	E440	03-Jun-2025	16-Jun-2025	180 days	14 days	✔	16-Jun-2025	180 days	14 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap 25DUP B	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap 25DUP C	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap 25DUP D	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH20 0.5m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH20 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH21 0.5m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH21 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH22 0.5m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH22 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH23 0.5m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH23 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH24 0.5m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH24 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH25 0.44 m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH25 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH26 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH27 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH28 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH29 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH30 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH31 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✔	16-Jun-2025	180 days	15 days	✔	



Matrix: Soil/Solid

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH32 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✓	16-Jun-2025	180 days	15 days	✓	
Metals : Metals in Soil/Solid by CRC ICPMS											
Glass soil jar/Teflon lined cap BH38 0-0.15m	E440	02-Jun-2025	16-Jun-2025	180 days	15 days	✓	16-Jun-2025	180 days	15 days	✓	
Particle Size : CCME fine/coarse Particle Size Analysis by wet sieve											
LDPE bag SED13	E178	03-Jun-2025	----	----	----		16-Jun-2025	180 days	13 days	✓	
Particle Size : CCME fine/coarse Particle Size Analysis by wet sieve											
Glass soil jar/Teflon lined cap SED15	E178	03-Jun-2025	----	----	----		16-Jun-2025	180 days	13 days	✓	
Particle Size : CCME fine/coarse Particle Size Analysis by wet sieve											
Glass soil jar/Teflon lined cap BH23 0-0.5m	E178	02-Jun-2025	----	----	----		16-Jun-2025	180 days	15 days	✓	
Particle Size : CCME fine/coarse Particle Size Analysis by wet sieve											
Glass soil jar/Teflon lined cap BH38 0-0.15m	E178	02-Jun-2025	----	----	----		16-Jun-2025	180 days	15 days	✓	
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received											
Glass soil jar/Teflon lined cap BH35 0-0.15m	E108A	03-Jun-2025	13-Jun-2025	30 days	10 days	✓	16-Jun-2025	30 days	10 days	✓	
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received											
Glass soil jar/Teflon lined cap 25DUP B	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓	
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received											
Glass soil jar/Teflon lined cap 25DUP D	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓	



Matrix: Soil/Solid

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH20 0.5m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH20 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH21 0.5m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH21 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH22 0.5m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH22 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH23 0.5m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH23 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH24 0.5m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✔	16-Jun-2025	30 days	11 days	✔



Matrix: **Soil/Solid**

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH24 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH25 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH26 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH29 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓
Physical Tests : pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received										
Glass soil jar/Teflon lined cap BH32 0-0.15m	E108A	02-Jun-2025	13-Jun-2025	30 days	11 days	✓	16-Jun-2025	30 days	11 days	✓

Matrix: **Water**

Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW12	E298	03-Jun-2025	13-Jun-2025	28 days	10 days	✓	16-Jun-2025	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW13	E298	03-Jun-2025	13-Jun-2025	28 days	10 days	✓	16-Jun-2025	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW14	E298	03-Jun-2025	13-Jun-2025	28 days	10 days	✓	16-Jun-2025	28 days	10 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW15	E298	03-Jun-2025	13-Jun-2025	28 days	10 days	✓	16-Jun-2025	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW16	E298	03-Jun-2025	13-Jun-2025	28 days	10 days	✓	16-Jun-2025	28 days	10 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) 25DUP F	E298	03-Jun-2025	13-Jun-2025	28 days	11 days	✓	16-Jun-2025	28 days	11 days	✓
Anions and Nutrients : Ammonia by Fluorescence										
Amber glass total (sulfuric acid) SW11	E298	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	16-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE 25DUP F	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	10 days	✓	13-Jun-2025	28 days	10 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SW11	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SW12	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SW13	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Chloride in Water by IC										
HDPE SW14	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Chloride in Water by IC											
HDPE SW15	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓	
Anions and Nutrients : Chloride in Water by IC											
HDPE SW16	E235.Cl	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE SW11	E378-U	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	12-Jun-2025	3 days	8 days	* EHTR	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE SW12	E378-U	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	12-Jun-2025	3 days	8 days	* EHTR	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE SW13	E378-U	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	12-Jun-2025	3 days	8 days	* EHTR	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE SW14	E378-U	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	12-Jun-2025	3 days	8 days	* EHTR	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE SW15	E378-U	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	12-Jun-2025	3 days	8 days	* EHTR	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE SW16	E378-U	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	12-Jun-2025	3 days	8 days	* EHTR	
Anions and Nutrients : Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)											
HDPE 25DUP F	E378-U	03-Jun-2025	12-Jun-2025	3 days	9 days	* EHTR	12-Jun-2025	3 days	9 days	* EHTR	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Anions and Nutrients : Fluoride in Water by IC										
HDPE 25DUP F	E235.F	03-Jun-2025	12-Jun-2025	28 days	10 days	✓	13-Jun-2025	28 days	10 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SW11	E235.F	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SW12	E235.F	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SW13	E235.F	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SW14	E235.F	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SW15	E235.F	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Fluoride in Water by IC										
HDPE SW16	E235.F	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓
Anions and Nutrients : Nitrate in Water by IC										
HDPE SW11	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	13-Jun-2025	3 days	8 days	* EHTR
Anions and Nutrients : Nitrate in Water by IC										
HDPE SW12	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	8 days	* EHTR	13-Jun-2025	3 days	8 days	* EHTR



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Nitrate in Water by IC											
HDPE SW13	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrate in Water by IC											
HDPE SW14	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrate in Water by IC											
HDPE SW15	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrate in Water by IC											
HDPE SW16	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrate in Water by IC											
HDPE 25DUP F	E235.NO3	03-Jun-2025	12-Jun-2025	3 days	9 days	*	13-Jun-2025	3 days	9 days	*	EHTR
Anions and Nutrients : Nitrite in Water by IC											
HDPE SW11	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrite in Water by IC											
HDPE SW12	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrite in Water by IC											
HDPE SW13	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrite in Water by IC											
HDPE SW14	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	8 days	*	13-Jun-2025	3 days	8 days	*	EHTR



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis					
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval		
				Rec	Actual			Rec	Actual			
Anions and Nutrients : Nitrite in Water by IC												
HDPE SW15	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	8 days	*	EHTR	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrite in Water by IC												
HDPE SW16	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	8 days	*	EHTR	13-Jun-2025	3 days	8 days	*	EHTR
Anions and Nutrients : Nitrite in Water by IC												
HDPE 25DUP F	E235.NO2	03-Jun-2025	12-Jun-2025	3 days	9 days	*	EHTR	13-Jun-2025	3 days	9 days	*	EHTR
Anions and Nutrients : Sulfate in Water by IC												
HDPE 25DUP F	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	10 days	✓		13-Jun-2025	28 days	10 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE SW11	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	9 days	✓		13-Jun-2025	28 days	9 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE SW12	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	9 days	✓		13-Jun-2025	28 days	9 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE SW13	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	9 days	✓		13-Jun-2025	28 days	9 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE SW14	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	9 days	✓		13-Jun-2025	28 days	9 days	✓	
Anions and Nutrients : Sulfate in Water by IC												
HDPE SW15	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	9 days	✓		13-Jun-2025	28 days	9 days	✓	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Anions and Nutrients : Sulfate in Water by IC											
HDPE SW16	E235.SO4	03-Jun-2025	12-Jun-2025	28 days	9 days	✔	13-Jun-2025	28 days	9 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) SW12	E355-L	03-Jun-2025	13-Jun-2025	28 days	10 days	✔	16-Jun-2025	28 days	10 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) SW13	E355-L	03-Jun-2025	13-Jun-2025	28 days	10 days	✔	16-Jun-2025	28 days	10 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) SW14	E355-L	03-Jun-2025	13-Jun-2025	28 days	10 days	✔	16-Jun-2025	28 days	10 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) SW15	E355-L	03-Jun-2025	13-Jun-2025	28 days	10 days	✔	16-Jun-2025	28 days	10 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) SW16	E355-L	03-Jun-2025	13-Jun-2025	28 days	10 days	✔	16-Jun-2025	28 days	10 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) 25DUP F	E355-L	03-Jun-2025	13-Jun-2025	28 days	11 days	✔	16-Jun-2025	28 days	11 days	✔	
Organic / Inorganic Carbon : Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)											
Amber glass total (sulfuric acid) SW11	E355-L	03-Jun-2025	12-Jun-2025	28 days	9 days	✔	13-Jun-2025	28 days	9 days	✔	
Physical Tests : Alkalinity Species by Titration											
HDPE 25DUP F	E290	03-Jun-2025	12-Jun-2025	14 days	10 days	✔	13-Jun-2025	14 days	10 days	✔	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Alkalinity Species by Titration											
HDPE SW11	E290	03-Jun-2025	12-Jun-2025	14 days	9 days	✓	13-Jun-2025	14 days	9 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SW12	E290	03-Jun-2025	12-Jun-2025	14 days	9 days	✓	13-Jun-2025	14 days	9 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SW13	E290	03-Jun-2025	12-Jun-2025	14 days	9 days	✓	13-Jun-2025	14 days	9 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SW14	E290	03-Jun-2025	12-Jun-2025	14 days	9 days	✓	13-Jun-2025	14 days	9 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SW15	E290	03-Jun-2025	12-Jun-2025	14 days	9 days	✓	13-Jun-2025	14 days	9 days	✓	
Physical Tests : Alkalinity Species by Titration											
HDPE SW16	E290	03-Jun-2025	12-Jun-2025	14 days	9 days	✓	13-Jun-2025	14 days	9 days	✓	
Physical Tests : Colour (Apparent) by Spectrometer											
HDPE SW16	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	236 hrs	* EHTR	
Physical Tests : Colour (Apparent) by Spectrometer											
HDPE SW15	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	237 hrs	* EHTR	
Physical Tests : Colour (Apparent) by Spectrometer											
HDPE SW12	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	238 hrs	* EHTR	



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Colour (Apparent) by Spectrometer										
HDPE SW13	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	238 hrs	✖ EHTR
Physical Tests : Colour (Apparent) by Spectrometer										
HDPE SW14	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	238 hrs	✖ EHTR
Physical Tests : Colour (Apparent) by Spectrometer										
HDPE SW11	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	239 hrs	✖ EHTR
Physical Tests : Colour (Apparent) by Spectrometer										
HDPE 25DUP F	E330	03-Jun-2025	----	----	----		13-Jun-2025	48 hrs	252 hrs	✖ EHTR
Physical Tests : Conductivity in Water										
HDPE 25DUP F	E100	03-Jun-2025	12-Jun-2025	28 days	10 days	✔	13-Jun-2025	28 days	10 days	✔
Physical Tests : Conductivity in Water										
HDPE SW11	E100	03-Jun-2025	12-Jun-2025	28 days	9 days	✔	13-Jun-2025	28 days	9 days	✔
Physical Tests : Conductivity in Water										
HDPE SW12	E100	03-Jun-2025	12-Jun-2025	28 days	9 days	✔	13-Jun-2025	28 days	9 days	✔
Physical Tests : Conductivity in Water										
HDPE SW13	E100	03-Jun-2025	12-Jun-2025	28 days	9 days	✔	13-Jun-2025	28 days	9 days	✔
Physical Tests : Conductivity in Water										
HDPE SW14	E100	03-Jun-2025	12-Jun-2025	28 days	9 days	✔	13-Jun-2025	28 days	9 days	✔



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis				
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval	
				Rec	Actual			Rec	Actual		
Physical Tests : Conductivity in Water											
HDPE SW15	E100	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓	
Physical Tests : Conductivity in Water											
HDPE SW16	E100	03-Jun-2025	12-Jun-2025	28 days	9 days	✓	13-Jun-2025	28 days	9 days	✓	
Physical Tests : pH by Meter											
HDPE SW16	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	209 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	209 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE SW14	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	210 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	210 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE SW15	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	210 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	210 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE SW11	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	211 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	211 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE SW12	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	211 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	211 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE SW13	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	211 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	211 hrs	* EHTR-FM	
Physical Tests : pH by Meter											
HDPE 25DUP F	E108	03-Jun-2025	12-Jun-2025	0.25 hrs	225 hrs	* EHTR-FM	12-Jun-2025	0.25 hrs	225 hrs	* EHTR-FM	



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : TDS by Gravimetry										
HDPE 25DUP F	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	10 days	* EHT
Physical Tests : TDS by Gravimetry										
HDPE SW11	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	9 days	* EHT
Physical Tests : TDS by Gravimetry										
HDPE SW12	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	9 days	* EHT
Physical Tests : TDS by Gravimetry										
HDPE SW13	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	9 days	* EHT
Physical Tests : TDS by Gravimetry										
HDPE SW14	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	9 days	* EHT
Physical Tests : TDS by Gravimetry										
HDPE SW15	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	9 days	* EHT
Physical Tests : TDS by Gravimetry										
HDPE SW16	E162	03-Jun-2025	----	----	----		12-Jun-2025	7 days	9 days	* EHT
Physical Tests : Turbidity by Nephelometry										
HDPE 25DUP F	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE SW11	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR



Matrix: **Water** Evaluation: * = Holding time exceedance ; ✓ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Physical Tests : Turbidity by Nephelometry										
HDPE SW12	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE SW13	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE SW14	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE SW15	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR
Physical Tests : Turbidity by Nephelometry										
HDPE SW16	E121	03-Jun-2025	----	----	----		12-Jun-2025	3 days	9 days	* EHTR
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) 25DUP F	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✓	12-Jun-2025	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW11	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✓	12-Jun-2025	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW12	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✓	12-Jun-2025	180 days	9 days	✓
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW13	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✓	12-Jun-2025	180 days	9 days	✓



Matrix: **Water** Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW14	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✔	12-Jun-2025	180 days	9 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW15	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✔	12-Jun-2025	180 days	9 days	✔
Total Metals : Total Metals in Water by CRC ICPMS										
HDPE total (nitric acid) SW16	E420	03-Jun-2025	12-Jun-2025	180 days	9 days	✔	12-Jun-2025	180 days	9 days	✔

Legend & Qualifier Definitions

- EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended
- EHTR: Exceeded ALS recommended hold time prior to sample receipt.
- EHT: Exceeded ALS recommended hold time prior to analysis.
- Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

The following report summarizes the frequency of laboratory QC samples analyzed within the analytical batches (QC lots) in which the submitted samples were processed. The actual frequency should be greater than or equal to the expected frequency.

Matrix: **Soil/Solid**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received	E108A	2049691	2	21	9.5	5.0	✓
CCME fine/coarse Particle Size Analysis by wet sieve	E178	2054203	1	5	20.0	5.0	✓
Total Organic Carbon by Wet Oxidation and Titration	E357	2052347	1	9	11.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2047816	5	47	10.6	5.0	✓
Laboratory Control Samples (LCS)							
pH by Meter (1:2 Soil:0.01M CaCl2 Extraction) - As Received	E108A	2049691	2	21	9.5	5.0	✓
CCME fine/coarse Particle Size Analysis by wet sieve	E178	2054203	1	5	20.0	5.0	✓
Total Organic Carbon by Wet Oxidation and Titration	E357	2052347	2	9	22.2	10.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2047816	10	47	21.2	10.0	✓
Method Blanks (MB)							
Total Organic Carbon by Wet Oxidation and Titration	E357	2052347	1	9	11.1	5.0	✓
Metals in Soil/Solid by CRC ICPMS	E440	2047816	5	47	10.6	5.0	✓

Matrix: **Water**

Evaluation: * = QC frequency outside specification; ✓ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Duplicates (DUP)							
Conductivity in Water	E100	2047286	1	13	7.6	5.0	✓
pH by Meter	E108	2047345	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2047600	1	20	5.0	5.0	✓
TDS by Gravimetry	E162	2047687	1	19	5.2	5.2	✓
Chloride in Water by IC	E235.Cl	2047283	1	13	7.6	5.0	✓
Fluoride in Water by IC	E235.F	2047281	1	13	7.6	5.0	✓
Nitrite in Water by IC	E235.NO2	2047282	1	13	7.6	5.0	✓
Nitrate in Water by IC	E235.NO3	2047280	1	19	5.2	5.0	✓
Sulfate in Water by IC	E235.SO4	2047284	1	14	7.1	5.0	✓
Alkalinity Species by Titration	E290	2047287	1	13	7.6	5.0	✓
Ammonia by Fluorescence	E298	2048236	2	40	5.0	5.0	✓
Colour (Apparent) by Spectrometer	E330	2050484	1	19	5.2	5.0	✓
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	2048240	2	40	5.0	5.0	✓
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2047289	1	19	5.2	5.0	✓
Total Metals in Water by CRC ICPMS	E420	2046916	1	15	6.6	5.0	✓
Laboratory Control Samples (LCS)							
Conductivity in Water	E100	2047286	1	13	7.6	5.0	✓
pH by Meter	E108	2047345	1	20	5.0	5.0	✓
Turbidity by Nephelometry	E121	2047600	1	20	5.0	5.0	✓



Matrix: **Water** Evaluation: ✖ = QC frequency outside specification; ✔ = QC frequency within specification.

Quality Control Sample Type	Method	QC Lot #	Count		Frequency (%)		
			QC	Regular	Actual	Expected	Evaluation
Analytical Methods							
Laboratory Control Samples (LCS) - Continued							
TDS by Gravimetry	E162	2047687	1	19	5.2	5.2	✔
Chloride in Water by IC	E235.Cl	2047283	1	13	7.6	5.0	✔
Fluoride in Water by IC	E235.F	2047281	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2047282	1	13	7.6	5.0	✔
Nitrate in Water by IC	E235.NO3	2047280	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	2047284	1	14	7.1	5.0	✔
Alkalinity Species by Titration	E290	2047287	1	13	7.6	5.0	✔
Ammonia by Fluorescence	E298	2048236	2	40	5.0	5.0	✔
Colour (Apparent) by Spectrometer	E330	2050484	1	19	5.2	5.0	✔
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	2048240	2	40	5.0	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2047289	1	19	5.2	5.0	✔
Total Metals in Water by CRC ICPMS	E420	2046916	1	15	6.6	5.0	✔
Method Blanks (MB)							
Conductivity in Water	E100	2047286	1	13	7.6	5.0	✔
Turbidity by Nephelometry	E121	2047600	1	20	5.0	5.0	✔
TDS by Gravimetry	E162	2047687	1	19	5.2	5.2	✔
Chloride in Water by IC	E235.Cl	2047283	1	13	7.6	5.0	✔
Fluoride in Water by IC	E235.F	2047281	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2047282	1	13	7.6	5.0	✔
Nitrate in Water by IC	E235.NO3	2047280	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	2047284	1	14	7.1	5.0	✔
Alkalinity Species by Titration	E290	2047287	1	13	7.6	5.0	✔
Ammonia by Fluorescence	E298	2048236	2	40	5.0	5.0	✔
Colour (Apparent) by Spectrometer	E330	2050484	1	19	5.2	5.0	✔
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	2048240	2	40	5.0	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2047289	1	19	5.2	5.0	✔
Total Metals in Water by CRC ICPMS	E420	2046916	1	15	6.6	5.0	✔
Matrix Spikes (MS)							
Chloride in Water by IC	E235.Cl	2047283	1	13	7.6	5.0	✔
Fluoride in Water by IC	E235.F	2047281	1	13	7.6	5.0	✔
Nitrite in Water by IC	E235.NO2	2047282	1	13	7.6	5.0	✔
Nitrate in Water by IC	E235.NO3	2047280	1	19	5.2	5.0	✔
Sulfate in Water by IC	E235.SO4	2047284	1	14	7.1	5.0	✔
Ammonia by Fluorescence	E298	2048236	2	40	5.0	5.0	✔
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L	2048240	2	40	5.0	5.0	✔
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U	2047289	1	19	5.2	5.0	✔
Total Metals in Water by CRC ICPMS	E420	2046916	1	15	6.6	5.0	✔



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
pH by Meter (1:2 Soil:0.01M CaCl ₂ Extraction) - As Received	E108A ALS Environmental - Waterloo	Soil/Solid	MECP E3530	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C) and is carried out in accordance with procedures described in the Analytical Protocol (prescriptive method). A minimum 10g portion of the sample, as received, is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil by centrifuging, settling, or decanting and then analyzed using a pH meter and electrode. This method is equivalent to ASTM D4972 and is acceptable for topsoil analysis.
CCME fine/coarse Particle Size Analysis by wet sieve	E178 ALS Environmental - Saskatoon	Soil/Solid	CCME Vol 4 Analytical Methods	An air-dried sample is reduced to < 2 mm size and mixed with a dispersing agent (sodium hexametaphosphate). The sample is washed through a 200 mesh (0.075 mm) sieve. The retained mass of sample is used to determine % sand fraction. If the percentage of sand is >50%, the soil is considered to be coarse textured soil. If the percentage of sand is <50%, the soil is considered to be fine textured.
Total Organic Carbon by Wet Oxidation and Titration	E357 ALS Environmental - Waterloo	Soil/Solid	CSSS (2008) 21.3.2 (mod)	Total Organic Carbon is determined by wet oxidation digestion using potassium dichromate and sulfuric acid (Walkley-Black). Oxidized organic carbon is determined by back-titration with ferrous ammonium sulfate. Organic matter is estimated from the organic carbon result using the Van Bemmelen factor.
Metals in Soil/Solid by CRC ICPMS	E440 ALS Environmental - Waterloo	Soil/Solid	EPA 6020B (mod)	This method is intended to liberate metals that may be environmentally available. Samples are dried, then sieved through a 2 mm sieve, and digested with HNO ₃ and HCl. Dependent on sample matrix, some metals may be only partially recovered, including Al, Ba, Be, Cr, Sr, Ti, Tl, V, W, and Zr. Silicate minerals are not solubilized. Volatile forms of sulfur (including sulfide) may not be captured, as they may be lost during sampling, storage, or digestion. This method does not adequately recover elemental sulfur, and is unsuitable for assessment of elemental sulfur standards or guidelines. Analysis is by Collision/Reaction Cell ICPMS.
Conductivity in Water	E100 ALS Environmental - Waterloo	Water	APHA 2510 (mod)	Conductivity, also known as Electrical Conductivity (EC) or Specific Conductance, is measured by immersion of a conductivity cell with platinum electrodes into a water sample. Conductivity measurements are temperature-compensated to 25°C.
pH by Meter	E108 ALS Environmental - Halifax	Water	APHA 4500-H (mod)	pH is determined by potentiometric measurement with a pH electrode, and is conducted at ambient laboratory temperature (normally 20 ± 5°C). For high accuracy test results, pH should be measured in the field within the recommended 15 minute hold time.
Turbidity by Nephelometry	E121 ALS Environmental - Waterloo	Water	APHA 2130 B (mod)	Turbidity is measured by the nephelometric method, by measuring the intensity of light scatter under defined conditions.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
TDS by Gravimetry	E162 ALS Environmental - Halifax	Water	APHA 2540 C (mod)	Total Dissolved Solids (TDS) are determined by filtering a sample through a glass fibre filter, with evaporation of the filtrate at $180 \pm 2^{\circ}\text{C}$ for 16 hours or to constant weight, with gravimetric measurement of the residue.
Chloride in Water by IC	E235.Cl ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Fluoride in Water by IC	E235.F ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrite in Water by IC	E235.NO2 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Nitrate in Water by IC	E235.NO3 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Sulfate in Water by IC	E235.SO4 ALS Environmental - Waterloo	Water	EPA 300.1 (mod)	Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
Alkalinity Species by Titration	E290 ALS Environmental - Waterloo	Water	APHA 2320 B (mod)	Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
Ammonia by Fluorescence	E298 ALS Environmental - Waterloo	Water	Method Fialab 100, 2018	Ammonia in water is determined by automated continuous flow analysis with membrane diffusion and fluorescence detection, after reaction with OPA (ortho-phthalaldehyde). This method is approved under US EPA 40 CFR Part 136 (May 2021)
Colour (Apparent) by Spectrometer	E330 ALS Environmental - Waterloo	Water	APHA 2120 C (mod)	Colour (Apparent) is measured in an unfiltered sample spectrophotometrically using the single wavelength method. The colour contribution of settleable solids are not included in the result. This method is intended for potable waters. Colour measurements can be highly pH dependent, and apply to the pH of the sample as received (at time of testing), without pH adjustment.



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Organic Carbon (Non-Purgeable) by Combustion (Low Level)	E355-L ALS Environmental - Waterloo	Water	APHA 5310 B (mod)	Total Organic Carbon (Non-Purgeable), also known as NPOC (total), is a direct measurement of TOC after an acidified sample has been purged to remove carbonate-based Inorganic Carbon (IC). Analysis is by high temperature combustion with infrared detection of CO ₂ . Forms of carbon associated with inorganic or organic molecules (e.g. SCN and CN) are included in NPOC if they are not removed by purging under acidic conditions. Notably, NPOC excludes most volatile organic compounds and free cyanide. For samples where the majority of Total Carbon is inorganic, this method provides greater accuracy and reliability versus the TOC by subtraction method (TC minus TIC).
Dissolved Orthophosphate by Colourimetry (Ultra Trace Level 0.001 mg/L)	E378-U ALS Environmental - Waterloo	Water	APHA 4500-P F (mod)	Dissolved Orthophosphate is determined colourimetrically on a sample that has been lab or field filtered through a 0.45 micron membrane filter. Field filtration is recommended to ensure test results represent conditions at time of sampling.
Total Metals in Water by CRC ICPMS	E420 ALS Environmental - Waterloo	Water	EPA 200.2/6020B (mod)	Water samples are digested with nitric and hydrochloric acids, and analyzed by Collision/Reaction Cell ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
Hardness (Calculated) from Total Ca/Mg	EC100A ALS Environmental - Waterloo	Water	APHA 2340B	"Hardness (as CaCO ₃), from total Ca/Mg" is calculated from the sum of total Calcium and Magnesium concentrations, expressed as CaCO ₃ equivalents. "Total Hardness" refers to the sum of Calcium and Magnesium Hardness. Hardness is normally or preferentially calculated from dissolved Calcium and Magnesium concentrations, because hardness is a property of water due to dissolved divalent cations. In non-turbid waters, Hardness from total Ca/Mg is normally comparable to Dissolved Hardness, but may be biased high if particulate forms of Ca or Mg are present.
Ion Balance using Total Metals	EC101A ALS Environmental - Waterloo	Water	APHA 1030E	Cation Sum (using total metals), Anion Sum, and Ion Balance are calculated based on guidance from APHA Standard Methods (1030E Checking Correctness of Analysis). Minor ions are included where data is present. Ion Balance cannot be calculated accurately for waters with very low electrical conductivity (EC).
Saturation Index using Laboratory pH (Ca-T)	EC105A ALS Environmental - Waterloo	Water	APHA 2330B	Langelier Index provides an indication of scale formation potential at a given pH and temperature, and is calculated as per APHA 2330B Saturation Index. Positive values indicate oversaturation with respect to CaCO ₃ . Negative values indicate undersaturation of CaCO ₃ . This calculation uses laboratory pH measurements and provides estimates of Langelier Index at temperatures of 4, 15, 20, 25, 66, and 77°C. Ryznar Stability Index is an alternative index used for scale formation and corrosion potential.
Nitrate and Nitrite (as N) (Calculation)	EC235.N+N ALS Environmental - Waterloo	Water	EPA 300.0	Nitrate and Nitrite (as N) is a calculated parameter. Nitrate and Nitrite (as N) = Nitrite (as N) + Nitrate (as N).



Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Total Silicon as Silica (Calculation)	EC420.SiO2 ALS Environmental - Waterloo	Water	N/A	Total Silicon (as SiO2) is a calculated parameter. Total Silicon (as SiO2 mg/L) = 2.139 x Total Silicon (mg/L).
Preparation Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Leach 1:2 Soil : 0.01CaCl2 - As Received for pH	EP108A ALS Environmental - Waterloo	Soil/Solid	MOEE E3137A	A minimum 10g portion of the sample, as received, is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil by centrifuging, settling or decanting and then analyzed using a pH meter and electrode.
Digestion for Metals and Mercury	EP440 ALS Environmental - Waterloo	Soil/Solid	EPA 200.2 (mod)	Samples are dried, then sieved through a 2 mm sieve, and digested with HNO3 and HCl. This method is intended to liberate metals that may be environmentally available.
Dry and Grind in Soil/Solid <60°C	EPP442 ALS Environmental - Saskatoon	Soil/Solid	Soil Sampling and Methods of Analysis, Carter 2008	After removal of any coarse fragments and reservation of wet subsamples a portion of homogenized sample is set in a tray and dried at less than 60°C until dry. The sample is then particle size reduced with an automated crusher or mortar and pestle, typically to <2 mm. Further size reduction may be needed for particular tests.
Preparation for Ammonia	EP298 ALS Environmental - Waterloo	Water		Sample preparation for Preserved Nutrients Water Quality Analysis.
Preparation for Total Organic Carbon by Combustion	EP355 ALS Environmental - Waterloo	Water		Preparation for Total Organic Carbon by Combustion

QUALITY CONTROL REPORT

Work Order	: HA2501752	Page	: 1 of 27
Client	: Dillon Consulting Limited	Laboratory	: ALS Environmental - Halifax
Contact	: Nadine Wambolt	Account Manager	: Andrew Martin
Address	: 275 Charlotte Street Suite 206 Sydney NS Canada B1P 1C6	Address	: 13-100 Wright Ave Dartmouth, Nova Scotia Canada B3B 1L2
Telephone	: 902.562.9880 ext. 5206	Telephone	: +1 902 707 4888
Project	: 24-8606	Date Samples Received	: 09-Jun-2025 15:30
PO	: ----	Date Analysis Commenced	: 12-Jun-2025
C-O-C number	: ----	Issue Date	: 17-Jun-2025 22:18
Sampler	: MK/EJM		
Site	:		
Quote number	: HA24-DICL100-2 - Frenchvale Mine		
No. of samples received	: 53		
No. of samples analysed	: 53		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.
 This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percent Difference (RPD) and Data Quality Objectives
- Matrix Spike (MS) Report; Recovery and Data Quality Objectives
- Reference Material (RM) Report; Recovery and Data Quality Objectives
- Method Blank (MB) Report; Recovery and Data Quality Objectives
- Laboratory Control Sample (LCS) Report; Recovery and Data Quality Objectives

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Greg Pokocky	Manager - Inorganics	Waterloo Inorganics, Waterloo, Ontario
Greg Pokocky	Manager - Inorganics	Waterloo Metals, Waterloo, Ontario
Hedy Lai	Team Leader - Inorganics	Saskatoon Inorganics, Saskatoon, Saskatchewan
Jiaxi Wang	Supervisor - Water Chemistry	Halifax Inorganics, Dartmouth, Nova Scotia
Jon Fisher	Production Manager, Environmental	Waterloo Inorganics, Waterloo, Ontario
Samuel Galarza		Waterloo Centralized Prep, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Inorganics, Waterloo, Ontario
Walt Kippenhuck	Supervisor - Inorganic	Waterloo Metals, Waterloo, Ontario



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



Laboratory Duplicate (DUP) Report

A Laboratory Duplicate (DUP) is a randomly selected intralaboratory replicate sample. Laboratory Duplicates provide information regarding method precision and sample heterogeneity. ALS DQOs for Laboratory Duplicates are expressed as test-specific limits for Relative Percent Difference (RPD), or as an absolute difference limit of 2 times the LOR for low concentration duplicates within ~ 4-10 times the LOR (cut-off is test-specific).

Sub-Matrix: Soil/Solid

					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2049691)											
HA2501752-001	BH20 0-0.15m	pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units	3.90	3.93	0.03	Diff <2x LOR	----
Physical Tests (QC Lot: 2049810)											
HA2501752-006	BH22 0.5m	pH (1:2 soil:CaCl2-aq)	----	E108A	0.10	pH units	5.21	5.16	0.964%	5%	----
Particle Size (QC Lot: 2054203)											
HA2501752-009	BH23 0-0.5m	Sand (>0.075mm)	----	E178	1.0	%	56.6	55.9	1.19%	20%	----
Metals (QC Lot: 2047816)											
HA2501752-001	BH20 0-0.15m	Aluminum	7429-90-5	E440	50	mg/kg	10800	10500	3.12%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.26	0.22	0.04	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	2.82	2.76	2.23%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	46.3	43.4	6.54%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.15	0.15	0.001	Diff <2x LOR	----
		Boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.112	0.108	0.004	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.50	mg/kg	10.3	9.21	10.9%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	3.17	3.18	0.299%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	9.33	9.39	0.681%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	19100	19100	0.0930%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	34.9	32.0	8.65%	40%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	139	139	0.230%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.55	0.62	11.4%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	5.46	6.05	10.1%	30%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.72	0.70	0.02	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	0.16	0.16	0.005	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	11.1	11.4	2.55%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.088	0.083	0.004	Diff <2x LOR	----
Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----		
Uranium	7440-61-1	E440	0.050	mg/kg	0.666	0.684	2.72%	30%	----		
Vanadium	7440-62-2	E440	0.20	mg/kg	51.6	49.6	3.85%	30%	----		
Zinc	7440-66-6	E440	2.0	mg/kg	30.3	29.3	3.31%	30%	----		



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 2048063)											
HA2501778-001	Anonymous	Aluminum	7429-90-5	E440	50	mg/kg	4290	4010	6.74%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	0.97	0.89	9.04%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	23.5	20.4	14.1%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	<0.020	<0.020	0	Diff <2x LOR	----
		Chromium	7440-47-3	E440	0.50	mg/kg	4.27	4.15	2.81%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	1.01	0.94	6.61%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	1.11	1.04	0.06	Diff <2x LOR	----
		Iron	7439-89-6	E440	50	mg/kg	2580	2400	7.12%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	3.20	3.12	2.68%	40%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	21.7	20.0	8.18%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	4.52	4.40	2.83%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	3.01	2.82	0.20	Diff <2x LOR	----
		Selenium	7782-49-2	E440	0.20	mg/kg	<0.20	<0.20	0	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	6.57	6.53	0.552%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.052	<0.050	0.002	Diff <2x LOR	----
Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----		
Uranium	7440-61-1	E440	0.050	mg/kg	0.182	0.173	0.009	Diff <2x LOR	----		
Vanadium	7440-62-2	E440	0.20	mg/kg	9.84	9.44	4.22%	30%	----		
Zinc	7440-66-6	E440	2.0	mg/kg	6.2	6.1	0.08	Diff <2x LOR	----		
Metals (QC Lot: 2049811)											
HA2501752-019	BH30 0-0.15m	Aluminum	7429-90-5	E440	50	mg/kg	22900	21100	8.09%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.14	0.14	0.005	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	2.73	2.61	4.50%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	51.9	48.1	7.55%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.50	0.44	0.06	Diff <2x LOR	----
		Boron	7440-42-8	E440	5.0	mg/kg	<5.0	<5.0	0	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.226	0.208	7.94%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	15.6	14.2	9.23%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	6.39	5.48	15.3%	30%	----



Sub-Matrix: Soil/Solid

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 2049811) - continued											
HA2501752-019	BH30 0-0.15m	Copper	7440-50-8	E440	0.50	mg/kg	11.2	10.5	6.68%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	26200	23700	10.2%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	14.1	12.5	12.2%	40%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	315	258	19.9%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.89	0.84	6.30%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	10.4	9.02	14.6%	30%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.64	0.59	0.06	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	0.10	<0.10	0.003	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	16.0	14.3	11.0%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.113	0.096	0.017	Diff <2x LOR	----
		Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.050	mg/kg	1.21	1.06	13.4%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	51.8	46.7	10.3%	30%	----
Zinc	7440-66-6	E440	2.0	mg/kg	74.6	68.0	9.23%	30%	----		
Metals (QC Lot: 2049963)											
HA2501752-030	25DUP G	Aluminum	7429-90-5	E440	50	mg/kg	30300	31300	3.03%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.12	0.12	0.005	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	3.56	3.62	1.94%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	62.0	60.5	2.36%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	1.73	1.78	2.64%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	7.5	7.5	0.01	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.907	0.861	5.19%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	23.5	23.7	1.09%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	11.7	11.7	0.124%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	44.9	45.1	0.311%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	20200	20000	0.522%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	27.8	27.7	0.650%	40%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	584	581	0.548%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	1.89	1.91	0.932%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	20.4	20.1	1.29%	30%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	2.71	2.74	1.05%	30%	----
		Silver	7440-22-4	E440	0.10	mg/kg	0.11	0.11	0.0007	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	29.9	30.2	1.03%	40%	----



Sub-Matrix: Soil/Solid					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Metals (QC Lot: 2049963) - continued											
HA2501752-030	25DUP G	Sulfur	7704-34-9	E440	1000	mg/kg	4100	4100	40	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.248	0.240	0.008	Diff <2x LOR	----
		Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----
		Uranium	7440-61-1	E440	0.050	mg/kg	35.8	35.8	0.0314%	30%	----
		Vanadium	7440-62-2	E440	0.20	mg/kg	46.7	46.8	0.343%	30%	----
		Zinc	7440-66-6	E440	2.0	mg/kg	140	138	1.12%	30%	----
Metals (QC Lot: 2050353)											
HA2501752-033	BH43 0-0.15m	Aluminum	7429-90-5	E440	50	mg/kg	19000	19000	0.230%	40%	----
		Antimony	7440-36-0	E440	0.10	mg/kg	0.12	0.15	0.03	Diff <2x LOR	----
		Arsenic	7440-38-2	E440	0.10	mg/kg	2.64	2.87	8.61%	30%	----
		Barium	7440-39-3	E440	0.50	mg/kg	48.8	48.0	1.63%	40%	----
		Beryllium	7440-41-7	E440	0.10	mg/kg	0.73	0.76	4.53%	30%	----
		Boron	7440-42-8	E440	5.0	mg/kg	5.3	5.1	0.2	Diff <2x LOR	----
		Cadmium	7440-43-9	E440	0.020	mg/kg	0.203	0.212	4.29%	30%	----
		Chromium	7440-47-3	E440	0.50	mg/kg	15.0	14.8	0.742%	30%	----
		Cobalt	7440-48-4	E440	0.10	mg/kg	10.8	11.2	4.07%	30%	----
		Copper	7440-50-8	E440	0.50	mg/kg	16.8	17.9	6.36%	30%	----
		Iron	7439-89-6	E440	50	mg/kg	24800	24700	0.118%	30%	----
		Lead	7439-92-1	E440	0.50	mg/kg	11.7	12.4	5.78%	40%	----
		Manganese	7439-96-5	E440	1.0	mg/kg	847	856	1.09%	30%	----
		Molybdenum	7439-98-7	E440	0.10	mg/kg	0.75	0.74	1.61%	40%	----
		Nickel	7440-02-0	E440	0.50	mg/kg	12.6	13.1	4.24%	30%	----
		Selenium	7782-49-2	E440	0.20	mg/kg	0.28	0.27	0.02	Diff <2x LOR	----
		Silver	7440-22-4	E440	0.10	mg/kg	<0.10	<0.10	0	Diff <2x LOR	----
		Strontium	7440-24-6	E440	0.50	mg/kg	23.4	22.4	4.67%	40%	----
		Sulfur	7704-34-9	E440	1000	mg/kg	<1000	<1000	0	Diff <2x LOR	----
		Thallium	7440-28-0	E440	0.050	mg/kg	0.114	0.113	0.0008	Diff <2x LOR	----
Tin	7440-31-5	E440	2.0	mg/kg	<2.0	<2.0	0	Diff <2x LOR	----		
Uranium	7440-61-1	E440	0.050	mg/kg	1.93	2.02	4.31%	30%	----		
Vanadium	7440-62-2	E440	0.20	mg/kg	45.6	45.7	0.0524%	30%	----		
Zinc	7440-66-6	E440	2.0	mg/kg	68.7	68.3	0.543%	30%	----		
Aggregate Organics (QC Lot: 2052347)											
HA2501752-040	SED11	Carbon, total organic [TOC]	----	E357	0.10	%	2.50	2.37	5.14%	20%	----



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Physical Tests (QC Lot: 2047286)											
WT2514700-001	Anonymous	Conductivity	----	E100	1.0	µS/cm	274	274	0.00%	10%	----
Physical Tests (QC Lot: 2047287)											
WT2514700-001	Anonymous	Alkalinity, total (as CaCO3)	----	E290	1.0	mg/L	77.7	78.5	0.999%	20%	----
Physical Tests (QC Lot: 2047345)											
HA2501736-001	Anonymous	pH	----	E108	0.10	pH units	6.54	6.56	0.153%	4%	----
Physical Tests (QC Lot: 2047600)											
HA2501752-049	SW11	Turbidity	----	E121	0.10	NTU	0.86	0.87	0.005	Diff <2x LOR	----
Physical Tests (QC Lot: 2047687)											
HA2501752-049	SW11	Solids, total dissolved [TDS]	----	E162	20	mg/L	128	123	4	Diff <2x LOR	----
Physical Tests (QC Lot: 2050484)											
HA2501752-049	SW11	Colour, apparent	----	E330	2.0	CU	17.8	18.3	0.5	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2047280)											
WT2514700-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2047281)											
WT2514700-001	Anonymous	Fluoride	16984-48-8	E235.F	0.020	mg/L	<0.020	<0.020	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2047282)											
WT2514700-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2047283)											
WT2514700-001	Anonymous	Chloride	16887-00-6	E235.Cl	0.50	mg/L	<0.50	<0.50	0	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2047284)											
WT2514700-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	0.30	mg/L	52.7	52.7	0.0704%	20%	----
Anions and Nutrients (QC Lot: 2047289)											
HA2501546-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0010	mg/L	0.0070	0.0068	0.0002	Diff <2x LOR	----
Anions and Nutrients (QC Lot: 2048236)											
WT2514278-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	2.50	mg/L	95.9	91.6	4.54%	20%	----
Anions and Nutrients (QC Lot: 2050091)											
HA2501545-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	0.0050	mg/L	0.106	0.106	0.378%	20%	----
Organic / Inorganic Carbon (QC Lot: 2048240)											
HA2501752-049	SW11	Carbon, total organic [TOC]	----	E355-L	0.50	mg/L	3.07	3.69	0.62	Diff <2x LOR	----
Organic / Inorganic Carbon (QC Lot: 2050090)											
HA2501752-050	SW12	Carbon, total organic [TOC]	----	E355-L	0.50	mg/L	2.72	3.00	0.28	Diff <2x LOR	----
Total Metals (QC Lot: 2046916)											
HA2501752-049	SW11	Aluminum, total	7429-90-5	E420	0.0030	mg/L	0.0734	0.0524	33.5%	20%	DUP-H



Sub-Matrix: **Water**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 2046916) - continued											
HA2501752-049	SW11	Antimony, total	7440-36-0	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Arsenic, total	7440-38-2	E420	0.00010	mg/L	0.00015	0.00014	0.00002	Diff <2x LOR	----
		Barium, total	7440-39-3	E420	0.00010	mg/L	0.00783	0.00781	0.256%	20%	----
		Beryllium, total	7440-41-7	E420	0.000020	mg/L	<0.000020	<0.000020	0	Diff <2x LOR	----
		Bismuth, total	7440-69-9	E420	0.000050	mg/L	<0.000050	<0.000050	0	Diff <2x LOR	----
		Boron, total	7440-42-8	E420	0.010	mg/L	<0.010	<0.010	0	Diff <2x LOR	----
		Cadmium, total	7440-43-9	E420	0.0000050	mg/L	<0.0000050	<0.0000050	0	Diff <2x LOR	----
		Calcium, total	7440-70-2	E420	0.100	mg/L	24.3	24.7	1.53%	20%	----
		Cesium, total	7440-46-2	E420	0.000010	mg/L	0.000014	0.000011	0.000003	Diff <2x LOR	----
		Chromium, total	7440-47-3	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Cobalt, total	7440-48-4	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Copper, total	7440-50-8	E420	0.00050	mg/L	0.00095	0.00077	0.00018	Diff <2x LOR	----
		Iron, total	7439-89-6	E420	0.010	mg/L	0.546	0.517	5.39%	20%	----
		Lead, total	7439-92-1	E420	0.000050	mg/L	0.000140	0.000134	0.000006	Diff <2x LOR	----
		Lithium, total	7439-93-2	E420	0.0010	mg/L	<0.0010	<0.0010	0	Diff <2x LOR	----
		Magnesium, total	7439-95-4	E420	0.0050	mg/L	7.92	8.09	2.22%	20%	----
		Manganese, total	7439-96-5	E420	0.00010	mg/L	0.0859	0.0860	0.179%	20%	----
		Molybdenum, total	7439-98-7	E420	0.000050	mg/L	0.000414	0.000414	0.0000001	Diff <2x LOR	----
		Nickel, total	7440-02-0	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Phosphorus, total	7723-14-0	E420	0.050	mg/L	0.066	<0.050	0.016	Diff <2x LOR	----
		Potassium, total	7440-09-7	E420	0.050	mg/L	0.534	0.546	2.23%	20%	----
		Rubidium, total	7440-17-7	E420	0.00020	mg/L	0.00120	0.00124	0.00004	Diff <2x LOR	----
		Selenium, total	7782-49-2	E420	0.000050	mg/L	0.000060	0.000058	0.000002	Diff <2x LOR	----
		Silicon, total	7440-21-3	E420	0.10	mg/L	1.15	1.14	1.21%	20%	----
		Silver, total	7440-22-4	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Sodium, total	7440-23-5	E420	0.050	mg/L	8.58	8.83	2.76%	20%	----
		Strontium, total	7440-24-6	E420	0.00020	mg/L	0.0401	0.0404	0.685%	20%	----
		Sulfur, total	7704-34-9	E420	0.50	mg/L	2.81	2.71	0.10	Diff <2x LOR	----
		Tellurium, total	13494-80-9	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----
		Thallium, total	7440-28-0	E420	0.000010	mg/L	<0.000010	<0.000010	0	Diff <2x LOR	----
		Thorium, total	7440-29-1	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Tin, total	7440-31-5	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----
		Titanium, total	7440-32-6	E420	0.00030	mg/L	0.00173	0.00152	0.00021	Diff <2x LOR	----
		Tungsten, total	7440-33-7	E420	0.00010	mg/L	<0.00010	<0.00010	0	Diff <2x LOR	----



Sub-Matrix: Water					Laboratory Duplicate (DUP) Report						
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	LOR	Unit	Original Result	Duplicate Result	RPD(%) or Difference	Duplicate Limits	Qualifier
Total Metals (QC Lot: 2046916) - continued											
HA2501752-049	SW11	Uranium, total	7440-61-1	E420	0.000010	mg/L	0.000967	0.000969	0.248%	20%	----
		Vanadium, total	7440-62-2	E420	0.00050	mg/L	<0.00050	<0.00050	0	Diff <2x LOR	----
		Zinc, total	7440-66-6	E420	0.0030	mg/L	<0.0030	<0.0030	0	Diff <2x LOR	----
		Zirconium, total	7440-67-7	E420	0.00020	mg/L	<0.00020	<0.00020	0	Diff <2x LOR	----

Qualifiers

Qualifier	Description
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.



Method Blank (MB) Report

A Method Blank is an analyte-free matrix that undergoes sample processing identical to that carried out for test samples. Method Blank results are used to monitor and control for potential contamination from the laboratory environment and reagents. For most tests, the DQO for Method Blanks is for the result to be < LOR.

Sub-Matrix: Soil/Solid

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2047816)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	---
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
Boron	7440-42-8	E440	5	mg/kg	<5.0	---
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	---
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	---
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	---
Iron	7439-89-6	E440	50	mg/kg	<50	---
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	---
Manganese	7439-96-5	E440	1	mg/kg	<1.0	---
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	---
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	---
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	---
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	---
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	---
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	---
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	---
Tin	7440-31-5	E440	2	mg/kg	<2.0	---
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	---
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	---
Zinc	7440-66-6	E440	2	mg/kg	<2.0	---
Metals (QCLot: 2048063)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	---
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	---
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	---
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	---
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	---
Boron	7440-42-8	E440	5	mg/kg	<5.0	---
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	---



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2048063) - continued						
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Metals (QCLot: 2049811)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2049811) - continued						
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Metals (QCLot: 2049963)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Metals (QCLot: 2050353)						
Aluminum	7429-90-5	E440	50	mg/kg	<50	----
Antimony	7440-36-0	E440	0.1	mg/kg	<0.10	----



Sub-Matrix: **Soil/Solid**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Metals (QCLot: 2050353) - continued						
Arsenic	7440-38-2	E440	0.1	mg/kg	<0.10	----
Barium	7440-39-3	E440	0.5	mg/kg	<0.50	----
Beryllium	7440-41-7	E440	0.1	mg/kg	<0.10	----
Boron	7440-42-8	E440	5	mg/kg	<5.0	----
Cadmium	7440-43-9	E440	0.02	mg/kg	<0.020	----
Chromium	7440-47-3	E440	0.5	mg/kg	<0.50	----
Cobalt	7440-48-4	E440	0.1	mg/kg	<0.10	----
Copper	7440-50-8	E440	0.5	mg/kg	<0.50	----
Iron	7439-89-6	E440	50	mg/kg	<50	----
Lead	7439-92-1	E440	0.5	mg/kg	<0.50	----
Manganese	7439-96-5	E440	1	mg/kg	<1.0	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	<0.10	----
Nickel	7440-02-0	E440	0.5	mg/kg	<0.50	----
Selenium	7782-49-2	E440	0.2	mg/kg	<0.20	----
Silver	7440-22-4	E440	0.1	mg/kg	<0.10	----
Strontium	7440-24-6	E440	0.5	mg/kg	<0.50	----
Sulfur	7704-34-9	E440	1000	mg/kg	<1000	----
Thallium	7440-28-0	E440	0.05	mg/kg	<0.050	----
Tin	7440-31-5	E440	2	mg/kg	<2.0	----
Uranium	7440-61-1	E440	0.05	mg/kg	<0.050	----
Vanadium	7440-62-2	E440	0.2	mg/kg	<0.20	----
Zinc	7440-66-6	E440	2	mg/kg	<2.0	----
Aggregate Organics (QCLot: 2052347)						
Carbon, total organic [TOC]	----	E357	0.1	%	<0.10	----

Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2047286)						
Conductivity	----	E100	1	µS/cm	1.1	----
Physical Tests (QCLot: 2047287)						
Alkalinity, total (as CaCO3)	----	E290	1	mg/L	1.2	----
Physical Tests (QCLot: 2047600)						
Turbidity	----	E121	0.1	NTU	<0.10	----
Physical Tests (QCLot: 2047687)						
Solids, total dissolved [TDS]	----	E162	10	mg/L	<10	----



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Physical Tests (QCLot: 2050484)						
Colour, apparent	---	E330	2	CU	<2.0	---
Anions and Nutrients (QCLot: 2047280)						
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2047281)						
Fluoride	16984-48-8	E235.F	0.02	mg/L	<0.020	---
Anions and Nutrients (QCLot: 2047282)						
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	<0.010	---
Anions and Nutrients (QCLot: 2047283)						
Chloride	16887-00-6	E235.Cl	0.5	mg/L	<0.50	---
Anions and Nutrients (QCLot: 2047284)						
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	<0.30	---
Anions and Nutrients (QCLot: 2047289)						
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	<0.0010	---
Anions and Nutrients (QCLot: 2048236)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Anions and Nutrients (QCLot: 2050091)						
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	<0.0050	---
Organic / Inorganic Carbon (QCLot: 2048240)						
Carbon, total organic [TOC]	---	E355-L	0.5	mg/L	<0.50	---
Organic / Inorganic Carbon (QCLot: 2050090)						
Carbon, total organic [TOC]	---	E355-L	0.5	mg/L	<0.50	---
Total Metals (QCLot: 2046916)						
Aluminum, total	7429-90-5	E420	0.003	mg/L	<0.0030	---
Antimony, total	7440-36-0	E420	0.0001	mg/L	<0.00010	---
Arsenic, total	7440-38-2	E420	0.0001	mg/L	<0.00010	---
Barium, total	7440-39-3	E420	0.0001	mg/L	<0.00010	---
Beryllium, total	7440-41-7	E420	0.00002	mg/L	<0.000020	---
Bismuth, total	7440-69-9	E420	0.00005	mg/L	<0.000050	---
Boron, total	7440-42-8	E420	0.01	mg/L	<0.010	---
Cadmium, total	7440-43-9	E420	0.000005	mg/L	<0.0000050	---
Calcium, total	7440-70-2	E420	0.05	mg/L	<0.050	---
Cesium, total	7440-46-2	E420	0.00001	mg/L	<0.000010	---
Chromium, total	7440-47-3	E420	0.0005	mg/L	<0.00050	---
Cobalt, total	7440-48-4	E420	0.0001	mg/L	<0.00010	---
Copper, total	7440-50-8	E420	0.0005	mg/L	<0.00050	---



Sub-Matrix: **Water**

Analyte	CAS Number	Method	LOR	Unit	Result	Qualifier
Total Metals (QCLot: 2046916) - continued						
Iron, total	7439-89-6	E420	0.01	mg/L	<0.010	----
Lead, total	7439-92-1	E420	0.00005	mg/L	<0.000050	----
Lithium, total	7439-93-2	E420	0.001	mg/L	<0.0010	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	<0.0050	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	<0.00010	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	<0.000050	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	<0.00050	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	<0.050	----
Potassium, total	7440-09-7	E420	0.05	mg/L	<0.050	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	<0.00020	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	<0.000050	----
Silicon, total	7440-21-3	E420	0.1	mg/L	<0.10	----
Silver, total	7440-22-4	E420	0.00001	mg/L	<0.000010	----
Sodium, total	7440-23-5	E420	0.05	mg/L	<0.050	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	<0.00020	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	<0.50	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	<0.00020	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	<0.000010	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	<0.00010	----
Tin, total	7440-31-5	E420	0.0001	mg/L	<0.00010	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	<0.00030	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	<0.00010	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	<0.000010	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	<0.00050	----
Zinc, total	7440-66-6	E420	0.003	mg/L	<0.0030	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	<0.00020	----



Laboratory Control Sample (LCS) Report

A Laboratory Control Sample (LCS) is an analyte-free matrix that has been fortified (spiked) with test analytes at known concentration and processed in an identical manner to test samples. LCS results are expressed as percent recovery, and are used to monitor and control test method accuracy and precision, independent of test sample matrix.

Sub-Matrix: Soil/Solid

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2049691)									
pH (1:2 soil:CaCl2-aq)	---	E108A	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 2049810)									
pH (1:2 soil:CaCl2-aq)	---	E108A	---	pH units	7 pH units	100	98.0	102	---
Metals (QCLot: 2047816)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	96.5	80.0	120	---
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	96.3	80.0	120	---
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	99.5	80.0	120	---
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	97.7	80.0	120	---
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	91.6	80.0	120	---
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	92.6	80.0	120	---
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	91.9	80.0	120	---
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	94.7	80.0	120	---
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	94.3	80.0	120	---
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	94.9	80.0	120	---
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	96.1	80.0	120	---
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	96.5	80.0	120	---
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	96.6	80.0	120	---
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	97.4	80.0	120	---
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	94.2	80.0	120	---
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	98.8	80.0	120	---
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	87.9	80.0	120	---
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	100	80.0	120	---
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	86.4	80.0	120	---
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	94.6	80.0	120	---
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	93.3	80.0	120	---
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	95.9	80.0	120	---
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	96.5	80.0	120	---
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	93.0	80.0	120	---
Metals (QCLot: 2048063)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	105	80.0	120	---
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	---
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	108	80.0	120	---



Sub-Matrix: Soil/Solid

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Recovery (%)				Qualifier
					Target Concentration	LCS	Low	High	
Metals (QCLot: 2048063) - continued									
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	104	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	95.7	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	97.0	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	101	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	105	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	104	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	98.6	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	104	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	103	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	102	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	100	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	94.0	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	101	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	95.6	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	98.4	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	104	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	106	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	100	80.0	120	----
Metals (QCLot: 2049811)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	99.7	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	102	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	103	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	91.8	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	93.3	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	97.5	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	101	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	99.8	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	99.4	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	103	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	99.1	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	102	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	103	80.0	120	----



Sub-Matrix: Soil/Solid

Laboratory Control Sample (LCS) Report

Analyte	CAS Number	Method	LOR	Unit	Spike	Recovery (%)	Recovery Limits (%)		Qualifier
					Target Concentration	LCS	Low	High	
Metals (QCLot: 2049811) - continued									
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	99.9	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	114	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	92.6	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	106	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	107	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	101	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	98.9	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	99.8	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	103	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	96.6	80.0	120	----
Metals (QCLot: 2049963)									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	104	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	104	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	105	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	106	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	91.9	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	92.4	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	97.6	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	103	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	99.1	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	101	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	98.2	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	103	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	105	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	99.9	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	94.7	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	94.2	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	107	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	103	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	95.8	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	101	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	95.4	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	105	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	94.2	80.0	120	----

Metals (QCLot: 2050353)



Sub-Matrix: **Soil/Solid**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Metals (QCLot: 2050353) - continued									
Aluminum	7429-90-5	E440	50	mg/kg	200 mg/kg	100	80.0	120	----
Antimony	7440-36-0	E440	0.1	mg/kg	100 mg/kg	103	80.0	120	----
Arsenic	7440-38-2	E440	0.1	mg/kg	100 mg/kg	106	80.0	120	----
Barium	7440-39-3	E440	0.5	mg/kg	25 mg/kg	103	80.0	120	----
Beryllium	7440-41-7	E440	0.1	mg/kg	10 mg/kg	96.2	80.0	120	----
Boron	7440-42-8	E440	5	mg/kg	100 mg/kg	98.7	80.0	120	----
Cadmium	7440-43-9	E440	0.02	mg/kg	10 mg/kg	95.1	80.0	120	----
Chromium	7440-47-3	E440	0.5	mg/kg	25 mg/kg	98.8	80.0	120	----
Cobalt	7440-48-4	E440	0.1	mg/kg	25 mg/kg	97.3	80.0	120	----
Copper	7440-50-8	E440	0.5	mg/kg	25 mg/kg	96.7	80.0	120	----
Iron	7439-89-6	E440	50	mg/kg	100 mg/kg	94.7	80.0	120	----
Lead	7439-92-1	E440	0.5	mg/kg	50 mg/kg	96.8	80.0	120	----
Manganese	7439-96-5	E440	1	mg/kg	25 mg/kg	99.0	80.0	120	----
Molybdenum	7439-98-7	E440	0.1	mg/kg	25 mg/kg	102	80.0	120	----
Nickel	7440-02-0	E440	0.5	mg/kg	50 mg/kg	96.7	80.0	120	----
Selenium	7782-49-2	E440	0.2	mg/kg	100 mg/kg	101	80.0	120	----
Silver	7440-22-4	E440	0.1	mg/kg	10 mg/kg	90.1	80.0	120	----
Strontium	7440-24-6	E440	0.5	mg/kg	25 mg/kg	102	80.0	120	----
Sulfur	7704-34-9	E440	1000	mg/kg	5000 mg/kg	92.4	80.0	120	----
Thallium	7440-28-0	E440	0.05	mg/kg	100 mg/kg	95.4	80.0	120	----
Tin	7440-31-5	E440	2	mg/kg	50 mg/kg	99.0	80.0	120	----
Uranium	7440-61-1	E440	0.05	mg/kg	0.5 mg/kg	97.1	80.0	120	----
Vanadium	7440-62-2	E440	0.2	mg/kg	50 mg/kg	100	80.0	120	----
Zinc	7440-66-6	E440	2	mg/kg	50 mg/kg	94.3	80.0	120	----
Aggregate Organics (QCLot: 2052347)									
Carbon, total organic [TOC]	---	E357	0.1	%	42.1 %	101	80.0	120	----

Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2047286)									
Conductivity	---	E100	1	µS/cm	1410 µS/cm	101	90.0	110	----
Physical Tests (QCLot: 2047287)									
Alkalinity, total (as CaCO3)	---	E290	1	mg/L	150 mg/L	107	85.0	115	----



Sub-Matrix: **Water**

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Physical Tests (QCLot: 2047345)									
pH	---	E108	---	pH units	7 pH units	100	98.0	102	---
Physical Tests (QCLot: 2047600)									
Turbidity	---	E121	0.1	NTU	200 NTU	99.5	85.0	115	---
Physical Tests (QCLot: 2047687)									
Solids, total dissolved [TDS]	---	E162	10	mg/L	1000 mg/L	99.1	85.0	115	---
Physical Tests (QCLot: 2050484)									
Colour, apparent	---	E330	2	CU	25 CU	112	85.0	115	---
Anions and Nutrients (QCLot: 2047280)									
Nitrate (as N)	14797-55-8	E235.NO3	0.02	mg/L	2.5 mg/L	101	90.0	110	---
Anions and Nutrients (QCLot: 2047281)									
Fluoride	16984-48-8	E235.F	0.02	mg/L	1 mg/L	102	90.0	110	---
Anions and Nutrients (QCLot: 2047282)									
Nitrite (as N)	14797-65-0	E235.NO2	0.01	mg/L	0.5 mg/L	100	90.0	110	---
Anions and Nutrients (QCLot: 2047283)									
Chloride	16887-00-6	E235.Cl	0.5	mg/L	100 mg/L	98.6	90.0	110	---
Anions and Nutrients (QCLot: 2047284)									
Sulfate (as SO4)	14808-79-8	E235.SO4	0.3	mg/L	100 mg/L	99.7	90.0	110	---
Anions and Nutrients (QCLot: 2047289)									
Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.001	mg/L	0.05 mg/L	105	80.0	120	---
Anions and Nutrients (QCLot: 2048236)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.3	85.0	115	---
Anions and Nutrients (QCLot: 2050091)									
Ammonia, total (as N)	7664-41-7	E298	0.005	mg/L	0.2 mg/L	97.1	85.0	115	---
Organic / Inorganic Carbon (QCLot: 2048240)									
Carbon, total organic [TOC]	---	E355-L	0.5	mg/L	8.57 mg/L	102	80.0	120	---
Organic / Inorganic Carbon (QCLot: 2050090)									
Carbon, total organic [TOC]	---	E355-L	0.5	mg/L	8.57 mg/L	102	80.0	120	---
Total Metals (QCLot: 2046916)									
Aluminum, total	7429-90-5	E420	0.003	mg/L	0.1 mg/L	110	80.0	120	---
Antimony, total	7440-36-0	E420	0.0001	mg/L	0.05 mg/L	108	80.0	120	---
Arsenic, total	7440-38-2	E420	0.0001	mg/L	0.05 mg/L	113	80.0	120	---
Barium, total	7440-39-3	E420	0.0001	mg/L	0.012 mg/L	111	80.0	120	---
Beryllium, total	7440-41-7	E420	0.00002	mg/L	0.005 mg/L	105	80.0	120	---



Sub-Matrix: Water

					Laboratory Control Sample (LCS) Report				
					Spike	Recovery (%)	Recovery Limits (%)		
Analyte	CAS Number	Method	LOR	Unit	Target Concentration	LCS	Low	High	Qualifier
Total Metals (QCLot: 2046916) - continued									
Bismuth, total	7440-69-9	E420	0.00005	mg/L	0.05 mg/L	106	80.0	120	----
Boron, total	7440-42-8	E420	0.01	mg/L	0.05 mg/L	103	80.0	120	----
Cadmium, total	7440-43-9	E420	0.000005	mg/L	0.005 mg/L	111	80.0	120	----
Calcium, total	7440-70-2	E420	0.05	mg/L	2.5 mg/L	106	80.0	120	----
Cesium, total	7440-46-2	E420	0.00001	mg/L	0.002 mg/L	102	80.0	120	----
Chromium, total	7440-47-3	E420	0.0005	mg/L	0.012 mg/L	111	80.0	120	----
Cobalt, total	7440-48-4	E420	0.0001	mg/L	0.012 mg/L	108	80.0	120	----
Copper, total	7440-50-8	E420	0.0005	mg/L	0.012 mg/L	109	80.0	120	----
Iron, total	7439-89-6	E420	0.01	mg/L	0.05 mg/L	110	80.0	120	----
Lead, total	7439-92-1	E420	0.00005	mg/L	0.025 mg/L	106	80.0	120	----
Lithium, total	7439-93-2	E420	0.001	mg/L	0.012 mg/L	102	80.0	120	----
Magnesium, total	7439-95-4	E420	0.005	mg/L	2.5 mg/L	117	80.0	120	----
Manganese, total	7439-96-5	E420	0.0001	mg/L	0.012 mg/L	108	80.0	120	----
Molybdenum, total	7439-98-7	E420	0.00005	mg/L	0.012 mg/L	105	80.0	120	----
Nickel, total	7440-02-0	E420	0.0005	mg/L	0.025 mg/L	108	80.0	120	----
Phosphorus, total	7723-14-0	E420	0.05	mg/L	0.5 mg/L	111	80.0	120	----
Potassium, total	7440-09-7	E420	0.05	mg/L	2.5 mg/L	105	80.0	120	----
Rubidium, total	7440-17-7	E420	0.0002	mg/L	0.005 mg/L	111	80.0	120	----
Selenium, total	7782-49-2	E420	0.00005	mg/L	0.05 mg/L	108	80.0	120	----
Silicon, total	7440-21-3	E420	0.1	mg/L	0.5 mg/L	106	80.0	120	----
Silver, total	7440-22-4	E420	0.00001	mg/L	0.005 mg/L	101	80.0	120	----
Sodium, total	7440-23-5	E420	0.05	mg/L	2.5 mg/L	111	80.0	120	----
Strontium, total	7440-24-6	E420	0.0002	mg/L	0.012 mg/L	108	80.0	120	----
Sulfur, total	7704-34-9	E420	0.5	mg/L	2.5 mg/L	105	80.0	120	----
Tellurium, total	13494-80-9	E420	0.0002	mg/L	0.005 mg/L	104	80.0	120	----
Thallium, total	7440-28-0	E420	0.00001	mg/L	0.05 mg/L	107	80.0	120	----
Thorium, total	7440-29-1	E420	0.0001	mg/L	0.005 mg/L	105	80.0	120	----
Tin, total	7440-31-5	E420	0.0001	mg/L	0.025 mg/L	107	80.0	120	----
Titanium, total	7440-32-6	E420	0.0003	mg/L	0.012 mg/L	107	80.0	120	----
Tungsten, total	7440-33-7	E420	0.0001	mg/L	0.005 mg/L	106	80.0	120	----
Uranium, total	7440-61-1	E420	0.00001	mg/L	0 mg/L	104	80.0	120	----
Vanadium, total	7440-62-2	E420	0.0005	mg/L	0.025 mg/L	110	80.0	120	----
Zinc, total	7440-66-6	E420	0.003	mg/L	0.025 mg/L	108	80.0	120	----
Zirconium, total	7440-67-7	E420	0.0002	mg/L	0.005 mg/L	104	80.0	120	----



Matrix Spike (MS) Report

A Matrix Spike (MS) is a randomly selected intra-laboratory replicate sample that has been fortified (spiked) with test analytes at known concentration, and processed in an identical manner to test samples. Matrix Spikes provide information regarding analyte recovery and potential matrix effects. MS DQO exceedances due to sample matrix may sometimes be unavoidable; in such cases, test results for the associated sample (or similar samples) may be subject to bias. ND – Recovery not determined, background level >= 1x spike level.

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Anions and Nutrients (QCLot: 2047280)										
WT2514700-001	Anonymous	Nitrate (as N)	14797-55-8	E235.NO3	2.48 mg/L	2.5 mg/L	99.4	75.0	125	----
Anions and Nutrients (QCLot: 2047281)										
WT2514700-001	Anonymous	Fluoride	16984-48-8	E235.F	1.02 mg/L	1 mg/L	102	75.0	125	----
Anions and Nutrients (QCLot: 2047282)										
WT2514700-001	Anonymous	Nitrite (as N)	14797-65-0	E235.NO2	0.504 mg/L	0.5 mg/L	101	75.0	125	----
Anions and Nutrients (QCLot: 2047283)										
WT2514700-001	Anonymous	Chloride	16887-00-6	E235.Cl	98.4 mg/L	100 mg/L	98.4	75.0	125	----
Anions and Nutrients (QCLot: 2047284)										
WT2514700-001	Anonymous	Sulfate (as SO4)	14808-79-8	E235.SO4	98.1 mg/L	100 mg/L	98.1	75.0	125	----
Anions and Nutrients (QCLot: 2047289)										
HA2501546-001	Anonymous	Phosphate, ortho-, dissolved (as P)	14265-44-2	E378-U	0.0196 mg/L	0.02 mg/L	99.9	70.0	130	----
Anions and Nutrients (QCLot: 2048236)										
WT2514278-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Anions and Nutrients (QCLot: 2050091)										
HA2501545-001	Anonymous	Ammonia, total (as N)	7664-41-7	E298	ND mg/L	----	ND	75.0	125	----
Organic / Inorganic Carbon (QCLot: 2048240)										
HA2501752-049	SW11	Carbon, total organic [TOC]	----	E355-L	5.78 mg/L	5 mg/L	116	70.0	130	----
Organic / Inorganic Carbon (QCLot: 2050090)										
HA2501752-050	SW12	Carbon, total organic [TOC]	----	E355-L	5.32 mg/L	5 mg/L	106	70.0	130	----
Total Metals (QCLot: 2046916)										
HA2501752-050	SW12	Aluminum, total	7429-90-5	E420	0.0955 mg/L	0.1 mg/L	95.5	70.0	130	----
		Antimony, total	7440-36-0	E420	0.0524 mg/L	0.05 mg/L	105	70.0	130	----
		Arsenic, total	7440-38-2	E420	0.0536 mg/L	0.05 mg/L	107	70.0	130	----
		Barium, total	7440-39-3	E420	0.0122 mg/L	0.012 mg/L	97.2	70.0	130	----
		Beryllium, total	7440-41-7	E420	0.00500 mg/L	0.005 mg/L	100	70.0	130	----
		Bismuth, total	7440-69-9	E420	0.0496 mg/L	0.05 mg/L	99.1	70.0	130	----
		Boron, total	7440-42-8	E420	0.050 mg/L	0.05 mg/L	101	70.0	130	----
		Cadmium, total	7440-43-9	E420	0.00507 mg/L	0.005 mg/L	101	70.0	130	----
		Calcium, total	7440-70-2	E420	ND mg/L	----	ND	70.0	130	----
		Cesium, total	7440-46-2	E420	0.00245 mg/L	0.002 mg/L	98.0	70.0	130	----
		Chromium, total	7440-47-3	E420	0.0131 mg/L	0.012 mg/L	105	70.0	130	----
		Cobalt, total	7440-48-4	E420	0.0127 mg/L	0.012 mg/L	102	70.0	130	----
		Copper, total	7440-50-8	E420	0.0126 mg/L	0.012 mg/L	101	70.0	130	----



Sub-Matrix: **Water**

					Matrix Spike (MS) Report					
					Spike		Recovery (%)	Recovery Limits (%)		
Laboratory sample ID	Client sample ID	Analyte	CAS Number	Method	Concentration	Target	MS	Low	High	Qualifier
Total Metals (QCLot: 2046916) - continued										
HA2501752-050	SW12	Iron, total	7439-89-6	E420	ND mg/L	---	ND	70.0	130	---
		Lead, total	7439-92-1	E420	0.0251 mg/L	0.025 mg/L	100	70.0	130	---
		Lithium, total	7439-93-2	E420	0.0130 mg/L	0.012 mg/L	104	70.0	130	---
		Magnesium, total	7439-95-4	E420	ND mg/L	---	ND	70.0	130	---
		Manganese, total	7439-96-5	E420	ND mg/L	---	ND	70.0	130	---
		Molybdenum, total	7439-98-7	E420	0.0126 mg/L	0.012 mg/L	100	70.0	130	---
		Nickel, total	7440-02-0	E420	0.0253 mg/L	0.025 mg/L	101	70.0	130	---
		Phosphorus, total	7723-14-0	E420	0.536 mg/L	0.5 mg/L	107	70.0	130	---
		Potassium, total	7440-09-7	E420	2.48 mg/L	2.5 mg/L	99.4	70.0	130	---
		Rubidium, total	7440-17-7	E420	0.00501 mg/L	0.005 mg/L	100	70.0	130	---
		Selenium, total	7782-49-2	E420	0.0516 mg/L	0.05 mg/L	103	70.0	130	---
		Silicon, total	7440-21-3	E420	ND mg/L	---	ND	70.0	130	---
		Silver, total	7440-22-4	E420	0.00473 mg/L	0.005 mg/L	94.6	70.0	130	---
		Sodium, total	7440-23-5	E420	ND mg/L	---	ND	70.0	130	---
		Strontium, total	7440-24-6	E420	ND mg/L	---	ND	70.0	130	---
		Sulfur, total	7704-34-9	E420	ND mg/L	---	ND	70.0	130	---
		Tellurium, total	13494-80-9	E420	0.00487 mg/L	0.005 mg/L	97.4	70.0	130	---
		Thallium, total	7440-28-0	E420	0.0505 mg/L	0.05 mg/L	101	70.0	130	---
		Thorium, total	7440-29-1	E420	0.00508 mg/L	0.005 mg/L	102	70.0	130	---
		Tin, total	7440-31-5	E420	0.0254 mg/L	0.025 mg/L	102	70.0	130	---
		Titanium, total	7440-32-6	E420	0.0125 mg/L	0.012 mg/L	99.9	70.0	130	---
		Tungsten, total	7440-33-7	E420	0.00489 mg/L	0.005 mg/L	97.7	70.0	130	---
		Uranium, total	7440-61-1	E420	ND mg/L	---	ND	70.0	130	---
		Vanadium, total	7440-62-2	E420	0.0265 mg/L	0.025 mg/L	106	70.0	130	---
		Zinc, total	7440-66-6	E420	0.0246 mg/L	0.025 mg/L	98.3	70.0	130	---
		Zirconium, total	7440-67-7	E420	0.00484 mg/L	0.005 mg/L	96.7	70.0	130	---



Reference Material (RM) Report

A Reference Material (RM) is a homogenous material with known and well-established analyte concentrations. RMs are processed in an identical manner to test samples, and are used to monitor and control the accuracy and precision of a test method for a typical sample matrix. RM results are expressed as percent recovery of the target analyte concentration. RM targets may be certified target concentrations provided by the RM supplier, or may be ALS long-term mean values (for empirical test methods).

Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Particle Size (QCLot: 2054203)									
QC-2054203-001	RM	Sand (>0.075mm)	----	E178	40.1 %	101	88.0	112	----
Metals (QCLot: 2047816)									
QC-2047816-003	RM	Aluminum	7429-90-5	E440	22500 mg/kg	106	70.0	130	----
QC-2047816-003	RM	Antimony	7440-36-0	E440	24.8 mg/kg	94.6	70.0	130	----
QC-2047816-003	RM	Arsenic	7440-38-2	E440	21.2 mg/kg	97.7	70.0	130	----
QC-2047816-003	RM	Barium	7440-39-3	E440	788 mg/kg	101	70.0	130	----
QC-2047816-003	RM	Beryllium	7440-41-7	E440	1.82 mg/kg	101	70.0	130	----
QC-2047816-003	RM	Cadmium	7440-43-9	E440	2.15 mg/kg	95.6	70.0	130	----
QC-2047816-003	RM	Chromium	7440-47-3	E440	56.9 mg/kg	98.7	70.0	130	----
QC-2047816-003	RM	Cobalt	7440-48-4	E440	32 mg/kg	98.4	70.0	130	----
QC-2047816-003	RM	Copper	7440-50-8	E440	969 mg/kg	104	70.0	130	----
QC-2047816-003	RM	Iron	7439-89-6	E440	32700 mg/kg	104	70.0	130	----
QC-2047816-003	RM	Lead	7439-92-1	E440	919 mg/kg	97.9	70.0	130	----
QC-2047816-003	RM	Manganese	7439-96-5	E440	8640 mg/kg	105	70.0	130	----
QC-2047816-003	RM	Molybdenum	7439-98-7	E440	25.1 mg/kg	99.3	70.0	130	----
QC-2047816-003	RM	Nickel	7440-02-0	E440	1000 mg/kg	104	70.0	130	----
QC-2047816-003	RM	Selenium	7782-49-2	E440	1.04 mg/kg	108	60.0	140	----
QC-2047816-003	RM	Silver	7440-22-4	E440	8.98 mg/kg	94.0	70.0	130	----
QC-2047816-003	RM	Strontium	7440-24-6	E440	41 mg/kg	99.2	70.0	130	----
QC-2047816-003	RM	Sulfur	7704-34-9	E440	3940 mg/kg	87.6	50.0	150	----
QC-2047816-003	RM	Thallium	7440-28-0	E440	0.907 mg/kg	97.7	70.0	130	----
QC-2047816-003	RM	Tin	7440-31-5	E440	3.79 mg/kg	98.9	40.0	160	----
QC-2047816-003	RM	Uranium	7440-61-1	E440	3.97 mg/kg	103	70.0	130	----
QC-2047816-003	RM	Vanadium	7440-62-2	E440	66.2 mg/kg	98.8	70.0	130	----
QC-2047816-003	RM	Zinc	7440-66-6	E440	828 mg/kg	96.4	70.0	130	----
Metals (QCLot: 2048063)									
QC-2048063-003	RM	Aluminum	7429-90-5	E440	22500 mg/kg	107	70.0	130	----
QC-2048063-003	RM	Antimony	7440-36-0	E440	24.8 mg/kg	89.0	70.0	130	----
QC-2048063-003	RM	Arsenic	7440-38-2	E440	21.2 mg/kg	100	70.0	130	----
QC-2048063-003	RM	Barium	7440-39-3	E440	788 mg/kg	98.5	70.0	130	----
QC-2048063-003	RM	Beryllium	7440-41-7	E440	1.82 mg/kg	96.2	70.0	130	----
QC-2048063-003	RM	Cadmium	7440-43-9	E440	2.15 mg/kg	104	70.0	130	----
QC-2048063-003	RM	Chromium	7440-47-3	E440	56.9 mg/kg	106	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 2048063) - continued									
QC-2048063-003	RM	Cobalt	7440-48-4	E440	32 mg/kg	102	70.0	130	----
QC-2048063-003	RM	Copper	7440-50-8	E440	969 mg/kg	107	70.0	130	----
QC-2048063-003	RM	Iron	7439-89-6	E440	32700 mg/kg	108	70.0	130	----
QC-2048063-003	RM	Lead	7439-92-1	E440	919 mg/kg	93.6	70.0	130	----
QC-2048063-003	RM	Manganese	7439-96-5	E440	8640 mg/kg	106	70.0	130	----
QC-2048063-003	RM	Molybdenum	7439-98-7	E440	25.1 mg/kg	97.6	70.0	130	----
QC-2048063-003	RM	Nickel	7440-02-0	E440	1000 mg/kg	105	70.0	130	----
QC-2048063-003	RM	Selenium	7782-49-2	E440	1.04 mg/kg	98.8	60.0	140	----
QC-2048063-003	RM	Silver	7440-22-4	E440	8.98 mg/kg	95.5	70.0	130	----
QC-2048063-003	RM	Strontium	7440-24-6	E440	41 mg/kg	91.7	70.0	130	----
QC-2048063-003	RM	Sulfur	7704-34-9	E440	3940 mg/kg	103	50.0	150	----
QC-2048063-003	RM	Thallium	7440-28-0	E440	0.907 mg/kg	97.6	70.0	130	----
QC-2048063-003	RM	Tin	7440-31-5	E440	3.79 mg/kg	99.3	40.0	160	----
QC-2048063-003	RM	Uranium	7440-61-1	E440	3.97 mg/kg	92.3	70.0	130	----
QC-2048063-003	RM	Vanadium	7440-62-2	E440	66.2 mg/kg	103	70.0	130	----
QC-2048063-003	RM	Zinc	7440-66-6	E440	828 mg/kg	101	70.0	130	----
Metals (QCLot: 2049811)									
QC-2049811-003	RM	Aluminum	7429-90-5	E440	22500 mg/kg	101	70.0	130	----
QC-2049811-003	RM	Antimony	7440-36-0	E440	24.8 mg/kg	98.9	70.0	130	----
QC-2049811-003	RM	Arsenic	7440-38-2	E440	21.2 mg/kg	98.4	70.0	130	----
QC-2049811-003	RM	Barium	7440-39-3	E440	788 mg/kg	100	70.0	130	----
QC-2049811-003	RM	Beryllium	7440-41-7	E440	1.82 mg/kg	91.0	70.0	130	----
QC-2049811-003	RM	Cadmium	7440-43-9	E440	2.15 mg/kg	97.1	70.0	130	----
QC-2049811-003	RM	Chromium	7440-47-3	E440	56.9 mg/kg	99.8	70.0	130	----
QC-2049811-003	RM	Cobalt	7440-48-4	E440	32 mg/kg	97.9	70.0	130	----
QC-2049811-003	RM	Copper	7440-50-8	E440	969 mg/kg	105	70.0	130	----
QC-2049811-003	RM	Iron	7439-89-6	E440	32700 mg/kg	102	70.0	130	----
QC-2049811-003	RM	Lead	7439-92-1	E440	919 mg/kg	92.4	70.0	130	----
QC-2049811-003	RM	Manganese	7439-96-5	E440	8640 mg/kg	103	70.0	130	----
QC-2049811-003	RM	Molybdenum	7439-98-7	E440	25.1 mg/kg	99.1	70.0	130	----
QC-2049811-003	RM	Nickel	7440-02-0	E440	1000 mg/kg	104	70.0	130	----
QC-2049811-003	RM	Selenium	7782-49-2	E440	1.04 mg/kg	107	60.0	140	----
QC-2049811-003	RM	Silver	7440-22-4	E440	8.98 mg/kg	94.8	70.0	130	----
QC-2049811-003	RM	Strontium	7440-24-6	E440	41 mg/kg	94.5	70.0	130	----
QC-2049811-003	RM	Sulfur	7704-34-9	E440	3940 mg/kg	90.4	50.0	150	----
QC-2049811-003	RM	Thallium	7440-28-0	E440	0.907 mg/kg	98.1	70.0	130	----
QC-2049811-003	RM	Tin	7440-31-5	E440	3.79 mg/kg	101	40.0	160	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 2049811) - continued									
QC-2049811-003	RM	Uranium	7440-61-1	E440	3.97 mg/kg	87.0	70.0	130	----
QC-2049811-003	RM	Vanadium	7440-62-2	E440	66.2 mg/kg	99.2	70.0	130	----
QC-2049811-003	RM	Zinc	7440-66-6	E440	828 mg/kg	95.6	70.0	130	----
Metals (QCLot: 2049963)									
QC-2049963-003	RM	Aluminum	7429-90-5	E440	22500 mg/kg	108	70.0	130	----
QC-2049963-003	RM	Antimony	7440-36-0	E440	24.8 mg/kg	84.4	70.0	130	----
QC-2049963-003	RM	Arsenic	7440-38-2	E440	21.2 mg/kg	92.9	70.0	130	----
QC-2049963-003	RM	Barium	7440-39-3	E440	788 mg/kg	110	70.0	130	----
QC-2049963-003	RM	Beryllium	7440-41-7	E440	1.82 mg/kg	93.3	70.0	130	----
QC-2049963-003	RM	Cadmium	7440-43-9	E440	2.15 mg/kg	94.7	70.0	130	----
QC-2049963-003	RM	Chromium	7440-47-3	E440	56.9 mg/kg	111	70.0	130	----
QC-2049963-003	RM	Cobalt	7440-48-4	E440	32 mg/kg	99.2	70.0	130	----
QC-2049963-003	RM	Copper	7440-50-8	E440	969 mg/kg	107	70.0	130	----
QC-2049963-003	RM	Iron	7439-89-6	E440	32700 mg/kg	105	70.0	130	----
QC-2049963-003	RM	Lead	7439-92-1	E440	919 mg/kg	92.7	70.0	130	----
QC-2049963-003	RM	Manganese	7439-96-5	E440	8640 mg/kg	111	70.0	130	----
QC-2049963-003	RM	Molybdenum	7439-98-7	E440	25.1 mg/kg	99.3	70.0	130	----
QC-2049963-003	RM	Nickel	7440-02-0	E440	1000 mg/kg	110	70.0	130	----
QC-2049963-003	RM	Selenium	7782-49-2	E440	1.04 mg/kg	90.4	60.0	140	----
QC-2049963-003	RM	Silver	7440-22-4	E440	8.98 mg/kg	88.1	70.0	130	----
QC-2049963-003	RM	Strontium	7440-24-6	E440	41 mg/kg	97.4	70.0	130	----
QC-2049963-003	RM	Sulfur	7704-34-9	E440	3940 mg/kg	93.8	50.0	150	----
QC-2049963-003	RM	Thallium	7440-28-0	E440	0.907 mg/kg	88.2	70.0	130	----
QC-2049963-003	RM	Tin	7440-31-5	E440	3.79 mg/kg	95.5	40.0	160	----
QC-2049963-003	RM	Uranium	7440-61-1	E440	3.97 mg/kg	93.0	70.0	130	----
QC-2049963-003	RM	Vanadium	7440-62-2	E440	66.2 mg/kg	101	70.0	130	----
QC-2049963-003	RM	Zinc	7440-66-6	E440	828 mg/kg	92.4	70.0	130	----
Metals (QCLot: 2050353)									
QC-2050353-003	RM	Aluminum	7429-90-5	E440	22500 mg/kg	98.7	70.0	130	----
QC-2050353-003	RM	Antimony	7440-36-0	E440	24.8 mg/kg	87.9	70.0	130	----
QC-2050353-003	RM	Arsenic	7440-38-2	E440	21.2 mg/kg	94.1	70.0	130	----
QC-2050353-003	RM	Barium	7440-39-3	E440	788 mg/kg	98.8	70.0	130	----
QC-2050353-003	RM	Beryllium	7440-41-7	E440	1.82 mg/kg	97.4	70.0	130	----
QC-2050353-003	RM	Cadmium	7440-43-9	E440	2.15 mg/kg	93.6	70.0	130	----
QC-2050353-003	RM	Chromium	7440-47-3	E440	56.9 mg/kg	97.2	70.0	130	----
QC-2050353-003	RM	Cobalt	7440-48-4	E440	32 mg/kg	95.5	70.0	130	----
QC-2050353-003	RM	Copper	7440-50-8	E440	969 mg/kg	101	70.0	130	----



Sub-Matrix:

Laboratory sample ID	Reference Material ID	Analyte	CAS Number	Method	Reference Material (RM) Report				
					RM Target Concentration	Recovery (%) RM	Recovery Limits (%)		Qualifier
							Low	High	
Metals (QCLot: 2050353) - continued									
QC-2050353-003	RM	Iron	7439-89-6	E440	32700 mg/kg	94.0	70.0	130	----
QC-2050353-003	RM	Lead	7439-92-1	E440	919 mg/kg	89.1	70.0	130	----
QC-2050353-003	RM	Manganese	7439-96-5	E440	8640 mg/kg	102	70.0	130	----
QC-2050353-003	RM	Molybdenum	7439-98-7	E440	25.1 mg/kg	92.5	70.0	130	----
QC-2050353-003	RM	Nickel	7440-02-0	E440	1000 mg/kg	98.5	70.0	130	----
QC-2050353-003	RM	Selenium	7782-49-2	E440	1.04 mg/kg	99.2	60.0	140	----
QC-2050353-003	RM	Silver	7440-22-4	E440	8.98 mg/kg	90.4	70.0	130	----
QC-2050353-003	RM	Strontium	7440-24-6	E440	41 mg/kg	89.4	70.0	130	----
QC-2050353-003	RM	Sulfur	7704-34-9	E440	3940 mg/kg	76.4	50.0	150	----
QC-2050353-003	RM	Thallium	7440-28-0	E440	0.907 mg/kg	88.8	70.0	130	----
QC-2050353-003	RM	Tin	7440-31-5	E440	3.79 mg/kg	90.9	40.0	160	----
QC-2050353-003	RM	Uranium	7440-61-1	E440	3.97 mg/kg	81.3	70.0	130	----
QC-2050353-003	RM	Vanadium	7440-62-2	E440	66.2 mg/kg	97.2	70.0	130	----
QC-2050353-003	RM	Zinc	7440-66-6	E440	828 mg/kg	93.4	70.0	130	----
Aggregate Organics (QCLot: 2052347)									
QC-2052347-003	RM	Carbon, total organic [TOC]	----	E357	0.637 %	92.4	70.0	130	----



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COC Number: 22 -

Page 3 of 6

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MAY 2023 FORM

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



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Page 4 of 6

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested			AFFIX ALS BARCODE LABEL HERE (ALS use only)															
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Contact:	Nadine Wambolt	Merge QC/QCI Reports with COA <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A																					
Phone:	902.565.8539	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked																					
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City/Province:	Sydney, Nova Scotia	Email 2 jmarsh@dillon.ca																					
Postal Code:	B1P 1C6	Email 3																					
Invoice To		Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO																					
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	BH10 1.0m	4-Jun-25		Soil		ABA 01																	
	SED8 0-0.15m	4-Jun-25		Soil																			
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City/Province:	Sydney, Nova Scotia	Email 2 jmarsh@dillon.ca			Date and Time Required for all E&P TATs:												
Postal Code:	B1P 1C6	Email 3			For all tests with rush TATs requested, please contact your AM to confirm availability.												
Invoice To		Invoice Recipients			Analysis Request												
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	SED11			3-Jun-25		13:27	SED	1	R								
	SED12			3-Jun-25	13:42	SED	1	R									
	SED13			3-Jun-25	13:57	SED	2	R	R	R							
	SED14			3-Jun-25	14:25	SED	1	R		R							
	SED15			3-Jun-25	15:12	SED	2	R	R	R							
	SED16			3-Jun-25	15:41	SED	1	R		R							
	SED17			4-Jun-25	11:05	SED	1	R		R							
	SED18			4-Jun-25	11:13	SED	1	R		R							
	25DUP E			3-Jun-25		SED	1	R		R							
Drinking Water (DW) Samples¹ (client use)		Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)			SAMPLE RECEIPT DETAILS (ALS use only)												
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input type="checkbox"/> NO		Written IDs on top of soils/sediment jars supercede any pre-labelled IDs			Cooling Method: <input type="checkbox"/> NONE <input type="checkbox"/> ICE <input type="checkbox"/> ICE PACKS <input type="checkbox"/> FROZEN <input type="checkbox"/> COOLING INITIATED												
Are samples for human consumption/ use? <input type="checkbox"/> YES <input type="checkbox"/> NO					Cooler Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A			Sample Custody Seals Intact: <input type="checkbox"/> YES <input type="checkbox"/> N/A									
					INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C									
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)												
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:									

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

MAY 2023 FRONT

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

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



CERTIFICATE OF ANALYSIS

Work Order	: HA2501775		
Client	: Dillon Consulting Limited	Laboratory	: ALS Environmental - Halifax
Contact	: Nadine Wambolt	Account Manager	: Andrew Martin
Address	: 275 Charlotte Street Suite 206 Sydney Nova Scotia Canada B1P 1C6	Address	: 13-100 Wright Ave Dartmouth NS Canada B3B 1L2
Telephone	: 902.562.9880 ext. 5206	E-mail	: andrew.martin@alsglobal.com
Project	: 24-8606	Telephone	: +1 902 707 4888
PO	: ----	Date Samples Received	: 09-Jun-2025 15:30
C-O-C number	: ----	Date Analysis Commenced	: 07-Jul-2025
Sampler	: MK/EJM	Issue Date	: 07-Jul-2025 17:20
Site	: ----		
Quote number	: HA24-DICL100-2 - Frenchvale Mine		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

Additional information pertinent to this report will be found in the following separate attachments: Quality Control Report, QC Interpretive report to assist with Quality Review and Sample Receipt Notification (SRN).

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Andrew Martin		Internal Subcontracting, North Vancouver, British Columbia



General Comments

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Refer to the ALS Quality Control Interpretive report (QCI) for applicable references and methodology summaries. Reference methods may incorporate modifications to improve performance.

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis.

Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Please refer to Quality Control Interpretive report (QCI) for information regarding Holding Time compliance.

Key: CAS Number: Chemical Abstracts Services number is a unique identifier assigned to discrete substances.
LOR: Limit of Reporting (detection limit).

<i>Unit</i>	<i>Description</i>
-	no units
%	percent
kg	kilograms
pH units	pH units
tCaCO ₃ /kt	tons CaCO ₃ per kiloton

<: less than.

>: greater than.

Surrogate: An analyte that is similar in behavior to target analyte(s), but that does not occur naturally in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED on SRN or QCI Report, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.



Analytical Results

Sub-Matrix: Soil/Solid
 (Matrix: Soil/Solid)

					Client sample ID	BH10 1.0m	SED8 0-0.15m	----	----	----
					Client sampling date / time	04-Jun-2025 00:00	04-Jun-2025 00:00	----	----	----
Analyte	CAS Number	Method/Lab	LOR	Unit	HA2501775-038	HA2501775-039	----	----	----	----
					Result	Result	----	----	----	----
Acid Base Accounting										
Fizz rating	----	OA-VOL08/1L	1	-	2	3	----	----	----	----
Maximum potential acidity [MPA]	----	OA-VOL08/1L	0.3	tCaCO ₃ /k	11.9	16.3	----	----	----	----
Net neutralization potential [NNP]	----	OA-VOL08/1L	1	tCaCO ₃ /k	54	297	----	----	----	----
Neutralization potential [NP]	----	OA-VOL08/1L	1	tCaCO ₃ /k	66	313	----	----	----	----
Neutralization potential ratio [NPR], (NP/MPA)	----	OA-VOL08/1L	0.01	-	5.56	19.26	----	----	----	----
pH (1:1 soil:water)	----	OA-ELE07/1L	0.10	pH units	7.10	7.10	----	----	----	----
Sulfur, total	7704-34-9	S-IR08/1L	0.01	%	0.38	0.52	----	----	----	----
Weight, sample received	n/a	WEI-21/1L	0.02	kg	0.38	0.90	----	----	----	----

Please refer to the General Comments section for an explanation of any qualifiers detected.



QUALITY CONTROL INTERPRETIVE REPORT

<p>Work Order : HA2501775</p> <p>Client : Dillon Consulting Limited</p> <p>Contact : Nadine Wambolt</p> <p>Address : 275 Charlotte Street Suite 206 Sydney NS Canada B1P 1C6</p> <p>Telephone : 902.562.9880 ext. 5206</p> <p>Project : 24-8606</p> <p>PO : ----</p> <p>C-O-C number : ----</p> <p>Sampler : MK/EJM</p> <p>Site :</p> <p>Quote number : HA24-DICL100-2 - Frenchvale Mine</p> <p>No. of samples received : 2</p> <p>No. of samples analysed : 2</p>	<p>Page : 1 of 5</p> <p>Laboratory : ALS Environmental - Halifax</p> <p>Account Manager : Andrew Martin</p> <p>Address : 13-100 Wright Ave Dartmouth, Nova Scotia Canada B3B 1L2</p> <p>Telephone : +1 902 707 4888</p> <p>Date Samples Received : 09-Jun-2025 15:30</p> <p>Issue Date : 07-Jul-2025 17:20</p>
---	---

This report is automatically generated by the ALS LIMS (Laboratory Information Management System) through evaluation of Quality Control (QC) results and other QA parameters associated with this submission, and is intended to facilitate rapid data validation by auditors or reviewers. The report highlights any exceptions and outliers to ALS Data Quality Objectives, provides holding time details and exceptions, summarizes QC sample frequencies, and lists applicable methodology references and summaries.

Key

- Anonymous: Refers to samples which are not part of this work order, but which formed part of the QC process lot.
- CAS Number: Chemical Abstracts Service number is a unique identifier assigned to discrete substances.
- DQO: Data Quality Objective.
- LOR: Limit of Reporting (detection limit).
- RPD: Relative Percent Difference.

Workorder Comments

Holding times are displayed as "----" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.

Summary of Outliers

Outliers : Quality Control Samples

- No Test sample Surrogate recovery outliers exist.

Outliers: Reference Material (RM) Samples

- No Reference Material (RM) Sample outliers occur.

Outliers : Analysis Holding Time Compliance (Breaches)

- No Analysis Holding Time Outliers exist.

Outliers : Frequency of Quality Control Samples

- No Quality Control Sample Frequency Outliers occur.



Analysis Holding Time Compliance

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times, which are selected to meet known provincial and /or federal requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by organizations such as CCME, US EPA, APHA Standard Methods, ASTM, or Environment Canada (where available). Dates and holding times reported below represent the first dates of extraction or analysis. If subsequent tests or dilutions exceeded holding times, qualifiers are added (refer to COA).

If samples are identified below as having been analyzed or extracted outside of recommended holding times, measurement uncertainties may be increased, and this should be taken into consideration when interpreting results.

Where actual sampling date is not provided on the chain of custody, the date of receipt with time at 00:00 is used for calculation purposes.

Where only the sample date without time is provided on the chain of custody, the sampling date at 00:00 is used for calculation purposes.

Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Acid Base Accounting : Acid Base Accounting (Regular Sobek)										
LDPE bag BH10 1.0m	OA-VOL08	04-Jun-2025	----	----	----		07-Jul-2025	----	----	
Acid Base Accounting : Acid Base Accounting (Regular Sobek)										
LDPE bag SED8 0-0.15m	OA-VOL08	04-Jun-2025	----	----	----		07-Jul-2025	----	----	
Acid Base Accounting : Total Sulfur by Combustion and IR										
LDPE bag BH10 1.0m	S-IR08	04-Jun-2025	----	----	----		07-Jul-2025	----	----	
Acid Base Accounting : Total Sulfur by Combustion and IR										
LDPE bag SED8 0-0.15m	S-IR08	04-Jun-2025	----	----	----		07-Jul-2025	----	----	
Physical Tests : Saturated Paste pH										
LDPE bag BH10 1.0m	OA-ELE07	04-Jun-2025	----	----	----		07-Jul-2025	----	----	
Physical Tests : Saturated Paste pH										
LDPE bag SED8 0-0.15m	OA-ELE07	04-Jun-2025	----	----	----		07-Jul-2025	----	----	
Sample Preparation : Received Sample Weight										
LDPE bag BH10 1.0m	WEI-21	04-Jun-2025	----	----	----		07-Jul-2025	180 days	33 days	✔



Matrix: **Soil/Solid**

Evaluation: ✖ = Holding time exceedance ; ✔ = Within Holding Time

Analyte Group : Analytical Method Container / Client Sample ID(s)	Method	Sampling Date	Extraction / Preparation				Analysis			
			Preparation Date	Holding Times		Eval	Analysis Date	Holding Times		Eval
				Rec	Actual			Rec	Actual	
Sample Preparation : Received Sample Weight										
LDPE bag SED8 0-0.15m	WEI-21	04-Jun-2025	----	----	----		07-Jul-2025	180 days	33 days	✔

Legend & Qualifier Definitions

Rec. HT: ALS recommended hold time (see units).



Quality Control Parameter Frequency Compliance

- No Quality Control data available for this section.



Methodology References and Summaries

The analytical methods used by ALS are developed using internationally recognized reference methods (where available), such as those published by US EPA, APHA Standard Methods, ASTM, ISO, Environment Canada, BC MOE, and Ontario MOE. Reference methods may incorporate modifications to improve performance (indicated by "mod").

Analytical Methods	Method / Lab	Matrix	Method Reference	Method Descriptions
Saturated Paste pH	OA-ELE07 ALS Minerals (North Vancouver) - 2103 Dollarton Hwy North Vancouver British Columbia Canada V7H 0A7	Soil/Solid	ALS Minerals OA-ELE07	Sample mix with water in 1:1 ratio to make a paste, pH is then determined.
Acid Base Accounting (Regular Sobek)	OA-VOL08 ALS Minerals (North Vancouver) - 2103 Dollarton Hwy North Vancouver British Columbia Canada V7H 0A7	Soil/Solid	ALS Minerals OA-VOL08	Determine the acid generation power of a sample as tonne CaCO ₃ per kilo-tonne.
Total Sulfur by Combustion and IR	S-IR08 ALS Minerals (North Vancouver) - 2103 Dollarton Hwy North Vancouver British Columbia Canada V7H 0A7	Soil/Solid	ALS Minerals S-IR08	A prepared sample is heated to approximately 1350°C in an induction furnace with oxygen stream. Sulfur dioxide released from the sample are measured by IR (Leco analyzer) and the Total Sulfur result is provided.
Received Sample Weight	WEI-21 ALS Minerals (North Vancouver) - 2103 Dollarton Hwy North Vancouver British Columbia Canada V7H 0A7	Soil/Solid	ALS Minerals WEI-21	Weigh out sample received.

QUALITY CONTROL REPORT

Work Order	: HA2501775	Page	: 1 of 2
Client	: Dillon Consulting Limited	Laboratory	: ALS Environmental - Halifax
Contact	: Nadine Wambolt	Account Manager	: Andrew Martin
Address	: 275 Charlotte Street Suite 206 Sydney NS Canada B1P 1C6	Address	: 13-100 Wright Ave Dartmouth, Nova Scotia Canada B3B 1L2
Telephone	: 902.562.9880 ext. 5206	Telephone	: +1 902 707 4888
Project	: 24-8606	Date Samples Received	: 09-Jun-2025 15:30
PO	: ----	Date Analysis Commenced	: 07-Jul-2025
C-O-C number	: ----	Issue Date	: 07-Jul-2025 17:19
Sampler	: MK/EJM		
Site	:		
Quote number	: HA24-DICL100-2 - Frenchvale Mine		
No. of samples received	: 2		
No. of samples analysed	: 2		

This report supersedes any previous report(s) with this reference. Results apply to the sample(s) as submitted. This document shall not be reproduced, except in full.
 This Quality Control Report contains the following information:

Signatories

This document has been electronically signed by the authorized signatories below. Electronic signing is conducted in accordance with US FDA 21 CFR Part 11.

<i>Signatories</i>	<i>Position</i>	<i>Laboratory Department</i>
Andrew Martin	Project Manager	ALS Minerals (North Vancouver) Internal Subcontracting, North Vancouver, British Columbia



General Comments

The ALS Quality Control (QC) report is optionally provided to ALS clients upon request. ALS test methods include comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against predetermined Data Quality Objectives (DQOs) to provide confidence in the accuracy of associated test results. This report contains detailed results for all QC results applicable to this sample submission. Please refer to the ALS Quality Control Interpretation report (QCI) for applicable method references and methodology summaries.

Key :

Anonymous = Refers to samples which are not part of this work order, but which formed part of the QC process lot.

CAS Number = Chemical Abstracts Service number is a unique identifier assigned to discrete substances.

DQO = Data Quality Objective.

LOR = Limit of Reporting (detection limit).

RPD = Relative Percent Difference

= Indicates a QC result that did not meet the ALS DQO.

Workorder Comments

Holding times are displayed as "---" if no guidance exists from CCME, Canadian provinces, or broadly recognized international references.



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Phone: +1 604 984 0221 Fax: +1 604 984 0218
 www.alsglobal.com/geochemistry

To: ALS ENVIRONMENTAL HALIFAX
 100 WRIGHT AVE UNIT 13
 DARTMOUTH NS B3B 1L2

Page: 1
 Total # Pages: 2 (A)
 Plus Appendix Pages
 Finalized Date: 7-JUL-2025
 Account: ALSHAL

CERTIFICATE VA25173488

Project: HA2501775

This report is for 2 samples of Soil submitted to our lab in Vancouver, BC, Canada on 12-JUN-2025.

The following have access to data associated with this certificate:

ABBY VAN DER JAGT	ANDREW MARTIN
-------------------	---------------

SAMPLE PREPARATION	
ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LOG-21	Sample logging - ClientBarCode
SCR-41	Screen to -180um and save both
DISP-01	Disposal of all sample fractions

ANALYTICAL PROCEDURES		
ALS CODE	DESCRIPTION	INSTRUMENT
OA-VOL08	Basic Acid Base Accounting	
S-IR08	Total Sulphur (IR Spectroscopy)	LECO
OA-ELE07	Paste pH	

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.
 ***** See Appendix Page for comments regarding this certificate *****

Signature: 
 Saa Traxler, Director, North Vancouver Operations



ALS Canada Ltd.
 2103 Dollarton Hwy
 North Vancouver BC V7H 0A7
 Phone: +1 604 984 0221 Fax: +1 604 984 0218
 www.alsglobal.com/geochemistry

To: ALS ENVIRONMENTAL HALIFAX
 100 WRIGHT AVE UNIT 13
 DARTMOUTH NS B3B 1L2

Page: 2 - A
 Total # Pages: 2 (A)
 Plus Appendix Pages
 Finalized Date: 7-JUL-2025
 Account: ALSHAL

Project: HA2501775

CERTIFICATE OF ANALYSIS VA25173488

Sample Description	Method Analyte Units LOD	WEI-21 Recvd Wt. kg	OA-VOL08 NP tCaCO3/1Kt	OA-ELE07 pH Unity	OA-VOL08 NNP tCaCO3/1Kt	OA-VOL08 MPA tCaCO3/1Kt	OA-VOL08 Ratio (N Unity	S-IR08 S %	OA-VOL08 FIZZ RAT Unity
HA2501775-038		0.38	66	7.1	54	11.9	5.56	0.38	2
HA2501775-039		0.90	313	7.1	297	16.3	19.26	0.52	3



ALS Canada Ltd.
2103 Dollarton Hwy
North Vancouver BC V7H 0A7
Phone: +1 604 984 0221 Fax: +1 604 984 0218
www.alsglobal.com/geochemistry

To: ALS ENVIRONMENTAL HALIFAX
100 WRIGHT AVE UNIT 13
DARTMOUTH NS B3B 1L2

Page: Appendix 1
Total # Appendix Pages: 1
Finalized Date: 7-JUL-2025
Account: ALSHAL

Project: HA2501775

CERTIFICATE OF ANALYSIS VA25173488

CERTIFICATE COMMENTS

LABORATORY ADDRESSES

Applies to Method:	Processed at ALS Vancouver located at 2103 Dollarton Hwy, North Vancouver, BC, Canada.			
	DISP-01	LOG-21	OA-ELE07	OA-VOL08
	SCR-41	S-IR08	WEI-21	



www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Page 1 of 6

Canada Toll Free: 1 800 668 9878

Environmental Division
Halifax

Work Order Reference
HA2501752



Telephone : + 1 902 707 4888

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested																																																																																																								
Company:	Dillon Consulting	Select Report Format:	<input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)	<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply																																																																																																									
Contact:	Nadine Wambolt	Merge QC/QCI Reports with COA	<input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A	<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum																																																																																																									
Phone:	902.565.8539	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum																																																																																																									
Company address below will appear on the final report		Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX	<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum																																																																																																									
Street:	275 Charlotte Street	Email 1 or Fax	nwambolt@dillon.ca	<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum																																																																																																									
City/Province:	Sydney, Nova Scotia	Email 2	jmarsh@dillon.ca	<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge.																																																																																																									
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ALS Lab Work Order # (ALS use only):	HA2501752	ALS Contact:	Abby van deer Jagt/Andrew Martin						Sampler:	MK/EJM	<table border="1"> <tr><td colspan="10">SAMPLES ON HOLD</td></tr> <tr><td colspan="10">EXTENDED STORAGE REQUIRE</td></tr> <tr><td colspan="10">SUSPECTED HAZARD (see notes)</td></tr> </table>								SAMPLES ON HOLD										EXTENDED STORAGE REQUIRE										SUSPECTED HAZARD (see notes)																																																																						
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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



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Chain of Custody (COC) / Analytical Request Form

COC Number: 22 -

Canada Toll Free: 1 800 668 9878

Page 5 of 6

Report To Contact and company name below will appear on the final report		Reports / Recipients			Turnaround Time (TAT) Requested			AFFIX ALS BARCODE LABEL HERE (ALS use only)																		
Company:	Dillon Consulting	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			<input checked="" type="checkbox"/> Routine [R] if received by 3pm M-F - no surcharges apply						Additional fees may apply to rush requests on weekends, statutory holidays and for non-routine tests.															
Contact:	Nadine Wambolt	Merge QC/QCI Reports with COA <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A			<input type="checkbox"/> 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum									Date and Time Required for all E&P TATs: _____												
Phone:	902.565.8539	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			<input type="checkbox"/> 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum												For all tests with rush TATs requested, please contact your AM to confirm availability.									
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			<input type="checkbox"/> 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum			Analysis Request																		
Street:	275 Charlotte Street	Email 1 or Fax nwambolt@dillon.ca			<input type="checkbox"/> 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum						Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below															
City/Province:	Sydney, Nova Scotia	Email 2 jmarsh@dillon.ca			<input type="checkbox"/> Same day [E2] if received by 10am M-S - 200% rush surcharge.									<table border="1"> <tr> <th rowspan="2">NUMBER OF CONTAINERS</th> <th colspan="3">Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below</th> <th rowspan="2">SAMPLES ON HOLD</th> <th rowspan="2">EXTENDED STORAGE REQUIRED</th> <th rowspan="2">SUSPECTED HAZARD (see notes)</th> </tr> <tr> <th>Metals</th> <th>Grain Size</th> <th>TOC</th> </tr> </table>						NUMBER OF CONTAINERS	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below			SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
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	Metals	Grain Size	TOC																							
Postal Code:	B1P 1C6	Email 3																								
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Recipients																								
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																								
Company:		Email 1 or Fax nwambolt@dillon.ca																								
Contact:		Email 2																								
Project Information		Oil and Gas Required Fields (client use)																								
ALS Client Code / QUOTE #: ALS 2025 Atlantic Rates Dillon Consulting		AFE/Cost Center:	PO#																							
Job / Project #: 24-8606		Major/Minor Code:	Routing Code:																							
PO / AFE:		Requisitioner:																								
LSD:		Location:																								
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	SED11		3-Jun-25	13:27	SED	1	R	R																		
	SED12		3-Jun-25	13:42	SED	1	R	R																		
	SED13		3-Jun-25	13:57	SED	2	R	R																		
	SED14		3-Jun-25	14:25	SED	1	R	R																		
	SED15		3-Jun-25	15:12	SED	2	R	R																		
	SED16		3-Jun-25	15:41	SED	1	R	R																		
	SED17		4-Jun-25	11:05	SED	1	R	R																		
	SED18		4-Jun-25	11:13	SED	1	R	R																		
	25DUP E		3-Jun-25		SED	1	R	R																		
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Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:																		

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